1800 TOEFL Essential Vocabulary

Essential Words You Need to Know!

Humanities
Social Sciences
Natural Sciences
Applied Sciences
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Categorizing used in this book

Category: HUMANITIES
Subcategory:
History, Anthropology, Archaeology, Literature and Authors, Linguistics, Music and Music History, Photography, Philosophy, Religion, Visual and Performing Art, Theater, Dance, Painting

Category: SOCIAL SCIENCES
Subcategory:

Category: NATURAL SCIENCES
Subcategory:
Physics, Geology, Meteorology, Astronomy, Biology, Aquatic Organisms, Oceanography, Glaciers, Deserts, Cosmology, Particle Physics, Chemistry, Seismology

Category: APPLIED SCIENCES
Subcategory:
Electronics, Medicine, Architecture, Ecology, Industrial Design, City Planning, Extinction of Animals, Conservation Efforts for Plants, Medical Technique, Public Health, Physiology
1. **contemporary**
   *adj.* belonging to the same period or time as something else
   *concurrent, coexistent, modern*

   *His work was a contemporary account of life in the nineteenth century.*

2. **afford**
   1) *v.* to provide; to give
   2) *v.* to be able to do something or to allow something to happen
   1) *provide, supply* 2) *be able, be rich enough*

   *Wool blankets were used in the colder regions of the country because of the warmth they afforded.*

3. **annually**
   *adv.* once a year; every year
   *yearly*

   *One of the most notable rodeos in the country is held annually in Wyoming.*

4. **ascribe**
   *v.* to believe something to be the result or work of
   *attribute, credit, assign*

   *Tradition ascribes the epic poems to Homer, but little is known about him.*

5. **imprint**
   *n.* a mark or impression made by pressure
   *mark, track, trace*
Experts believe the origin of rice was in Asia due to the **imprints** that they found at the site in China.

6. **apace with**  
*ph. keeping pace with*  
**abreast with**

*The downtown business district did not grow apace with the city as a whole.*

7. **cradle**  
*n. a bed for a small baby, especially one that can be rocked; a place of origin*  
**bassinet, cot, birthplace**

*The Nile River is the longest river in the world and the cradle of civilization.*

8. **undoubtedly**  
*adv. without any doubt; surely*  
**certainly, doubtlessly, unquestionably**

**Undoubtedly,** game animals were major components of human diets.

9. **cunning**  
*adj. clever in deceiving*  
**deceptive, shrewd, sly**

*Although they were cunning hunters,* primitive humans were still threatened by certain animals.

10. **enigmatic**  
*adj. mysterious and very hard to understand*  
**obscure, ambiguous**
The rise of Neanderthal man is somewhat *enigmatic* despite the relative abundance of fossils.

11. **abundant**
   adj. existing in large amounts

   plentiful, profuse, ample

   Some women specialized in the gathering of the *abundant* shellfish that lived closer to shore.

12. **account for**
   1) *ph.* to give a reason or explanation for something
   2) *ph.* to constitute; to form
   1) explain, clarify 2) make up

   Various methods of spattering the glaze onto the ware *account for* the extremely wide variations in color.

13. **cast**
   v. to shape by pouring something into a mold and allowing it to set

   form, mold, shape

   Early civilizations used bronze, an alloy that could be *cast* in molds, to make tools and weapons.

14. **artifact**
   n. a handcrafted object, especially one that is of archaeological interest

   remain, relic, antiquity

   The archaeologists examined all of evidence from sites very closely and then determined the general age of the *artifacts*.

15. **accommodate**
   v. to provide someone with a place to stay
The adjoining apartments could **accommodate** dozens of families.

16. **adorn**
   v. to make more beautiful, attractive, or interesting
   **decorate, ornament, embellish**

   *In the past, men, women, and children adorned themselves with beads.*

17. **abruptly**
   **adv.** in a sudden and unexpected manner; very quickly
   **unexpectedly, suddenly, instantly**

   *They didn’t care for the play because it ended so abruptly.*

18. **acclaim**
   v. to declare something with noisy enthusiasm
   **hail, applaud, cheer**

   *The ballerina was acclaimed for her wonderful performance.*

19. **bear**
   1) v. to have; to bring or take
   2) v. to support a weight or load; to accept something without complaining
   1) **carry** 2) **sustain, endure**

   *Alternative history bears some relation to historical fiction as well as to science fiction.*

20. **by chance**
   **ph.** without cause or reason; by accident
accidentally, incidentally

The character gained his wealth by chance, not from hard work.

21. **abandon**

v. to give something up completely
desert, cede, leave behind

Some rituals were abandoned, but the stories, later called myths, persisted and provided material for art and drama.

22. **abstraction** cf. abstract

n. an idea of a quality considered separately from any particular object or case
conception, notion, representation

A number of sculptors have rejected the abstractions of minimalist artists.

23. **agile**

adj. able to move or change quickly and easily
nimble, quick, swift

Acrobats must be extremely agile.

24. **surmount**

v. to be above or on top of; to overcome
ascend, mount, defeat

She managed to surmount the obstacle.

25. **aesthetically** cf. aesthetic

adv. in an aesthetic manner; in a highly developed sense of beauty
artistically, beautifully, tastefully

Satires are read because they are aesthetically satisfying works of art.

26. akin (to)
adj. having the same appearance, character, or nature
similar, alike, related

Her fictitious world is strikingly akin to the real one people live in every day.

27. diverse
adj. different from each other; showing variety
different, various, assorted

The artwork is diverse in form and includes sculptures, paintings and photographs.

28. acquisition
n. the act of obtaining, developing, or acquiring something
gain, procurement, acquirement

Social-interactionists believe that adults play an important part in children’s language acquisition.

29. outgoing
adj. eager to mix socially with others
friendly, sociable

Gregarious people are friendly and outgoing.

30. nuisance
n. something or someone that causes trouble
annoyance, irritation, inconvenience
After the war, the robber became a small-scale rustler – it was more a nuisance than highway robbery.
1. **levy**

   *v. to demand and collect officially*
   *impose, charge, tax*

   A new tax was **levied** on consumers of luxury goods.

2. **barrier**

   *n. something that is used to keep people or things apart*
   *bar, fence, wall*

   During pioneer times, the Allegheny Mountains were major **barriers** to transportation.

3. **beverage**

   *n. a prepared drink, especially a hot drink like coffee or tea, or an alcoholic drink like beer*
   *drink, liquid, refreshment*

   The availability of synthetic fragrances has made possible a large variety of products, from **beverages** to used cars with applied “new car odor.”

4. **brag**

   *v. to talk boastfully or proudly about oneself and about what one has done*
   *boast, swagger, talk big*

   The owners often **bragged** about the quality of the facilities at their resort.

5. **breed**

   *v. to reproduce sexually; to raise something, often an animal*
   *generate, bring forth, rear*
Nothing breeds success like success, so he kept signing deals after he got his first one.

6. **speculator**  
*n.* someone who speculates, especially financially  
**investor, gambler**

Excessive investment by *speculators* may lead to uncontrolled economic growth.

7. **culminate**  
*v.* to reach the highest point or climax  
**climax, consummate**

The crisis *culminated* in the Panic of 1873, when the leading investment banking firm declared bankruptcy.

8. **propel**  
*v.* to drive or push something forward  
**drive, thrust, impel**

By the 1600s, colonial shipbuilders were strong competitors in the shipbuilding industry and helped to *propel* heavy transatlantic commerce.

9. **auction**  
*n.* a public sale in which each item is sold to the person who offers the most money  
**public sale, open sale**

*Auctions* were another popular form of occasional trade.

10. **urbanization**  
*cf. urban*  
*n.* the process by which cities grow or by which societies become more urban
Technological developments further stimulated the process of urbanization.

11. calamity
   n. a catastrophe, or serious misfortune that causes great loss or damage
   disaster, catastrophe, misfortune

   The Red Cross provides relief in case of calamities like floods, earthquakes, and hurricanes.

12. infamous
   adj. well known for being bad or morally wicked
   notorious, disreputable, ill-famed

   Jesse James was an infamous outlaw who was well-known as a bank robber and gunfighter.

13. notify
   v. to tell someone, especially formally
   announce, inform, alert

   Who should be notified in case you are involved in an accident?

14. misery
   n. great unhappiness or suffering
   affliction, distress, hardship

   Jacob Riis, a newspaper reporter and photographer, revealed the misery of the slums of New York City.

15. acute
   adj. able to notice small differences; showing an ability to understand things clearly and deeply
   keen, sharp, penetrating
The acute public awareness of social changes was tied to the tremendous growth in popular journalism in the late nineteenth century.

16. **assert**

v. to state firmly; to insist on or to defend one’s rights, opinions, or something else

affirm, state, insist

Slave owners **asserted** that their crops were a great benefit to the economy and that the slaves were needed to work the land.

17. **adversity**

n. circumstances that cause trouble or sorrow

hardship, misfortune, suffering

The natives were very tough people who were able to handle **adversity**.

18. **retrieval**

n. the act or process of retrieving

recovery, restoration

Memory formation involves three main processes; encoding, storage, and **retrieval**.

19. **assembly**

n. a group of people gathered together, especially for a meeting

gathering, congregation, congress

All the representatives came to the capital for legislative sessions of the **assembly** and council.

20. **bill**

n. a written plan or draft for a proposed law
Even if a bill passes in Congress, it still does not become a law until the president signs it.

21. **craft**
   1) *n.* a skill, or occupation, especially one requiring the use of the hands
   2) *v.* to make something skillfully
   1) **expertise, adeptness** 2) **make, fabricate**

   Much of the political activity on television news has been crafted by politicians and their public relations advisers.

22. **adept**
   *adj.* skillful at doing something
   **proficient, versed, dexterous**

   He must be adept at dealing with politicians, public interest groups, and government agencies.

23. **enact**
   *v.* to establish by law
   **pass, decree, legislate**

   Market regulations are often enacted by corrupt governments for the purpose of benefiting well-connected companies or politicians.

24. **eligible**
   *adj.* suitable or deserving to be chosen for a job or something else
   **suitable, qualified, fit**

   In the United States, citizens are eligible to vote at the age of eighteen.
25. **conclusive**
*adj.* leaving no room for doubt or uncertainty
**decisive, convincing, definite**

*Each circumstance may mean little, but a whole chain of circumstances can be as conclusive as direct evidence.*

26. **verbal**
*adj.* relating to or consisting of words
**oral, spoken, vocal**

*Dreams are commonly made up of both visual and verbal images.*

27. **able**
*adj.* having the necessary knowledge, power, time, and opportunity to do something
**capable, competent, talented**

*The head of an academic department at a university should be not only a distinguished scholar but also an able administrator.*

28. **adhere (to)**
*v.* to stick or remain fixed to something
**attach, cleave, stick**

*The child always adheres to the teacher’s rules.*

29. **ban**
*v.* to forbid something
**prohibit, bar, outlaw**

*Some people feel that violent sports like boxing should be banned because they are too dangerous.*
30. **blunt**

*adj.* having no point or sharp edge; imperceptive
dull, worn, abrupt

*The victim was apparently struck by a club or some other blunt object.*
1. **cognizant**
   *adj.* aware of something or having knowledge of it
   *aware, conscious, knowledgeable*

   A scientist must always be **cognizant** of and guard against bias skewing the results of his or her research.

2. **cohesive**
   *adj.* having the power of cohering; tending to unite into a mass
   *condensable, consolidative*

   The **cohesive** strength permits columns of water to be pulled to great heights without being broken.

3. **confirm**
   *v.* to provide support for the truth or validity of something
   *verify, prove, affirm*

   If observations **confirm** the scientists’ predictions, then that will give support to their theory.

4. **warp**
   *v.* to make something become twisted out of shape through shrinking and expanding
   *bend, twist, distort*

   If boards become wet, they may **warp**.

5. **discharge**
   *v.* to flow out or to be released; to lose some or all of something’s electrical charge
   *let out, release, emit*
Sharks can detect minute electrical signals discharged from their prey.

6. alert
   v. to warn someone of danger; to make someone aware of a fact or circumstance
   caution, alarm, warn

   Fire ants make use of an alarm pheromone to alert workers to an emergency.

7. chamber
   n. a room, especially a bedroom; a room set aside for a special purpose
   bedroom, room, compartment

   Numerous networks of tunnels linked all the different chambers together.

8. classify
   v. to put animals, plants, or something else into a particular group or category
   categorize, divide, sort

   Monkeys are classified as primates.

9. claw
   n. a hard, curved, and pointed nail on the end of each digit of the foot of an animal
   nail, talon

   Unlike other cats, the cheetah cannot fully extract its claws.

10. aromatic
    adj. having a strong but sweet or pleasant smell; sweet-smelling
    fragrant, perfumed, pungent
At least 50 different aromatic compounds have been analyzed in the orchid family.

11. **demonstrate**
1) v. to show or prove something by reasoning or providing evidence
2) v. to show support or opposition by protesting or marching in public
1) *illustrate, explain* 2) *parade, protest*

Many experiments *demonstrated* how some plants can survive with very little amounts of water.

12. **landmark**
*n.* a mark showing the boundary of a piece of land; an occasion, event, or development of importance
*milestone, watershed, turning point*

Some experts have suggested that migrating birds find their way by following *landmarks* like rivers and mountain ranges.

13. **bloom**
*v.* to be in or come into flower; to be growing well
*blossom, flourish, prosper*

Most flowers *bloom* in the spring.

14. **venomous**
*adj.* having the ability to poison
*poisonous, toxic*

The rattlesnake is the most common *venomous* snake in the United States.

15. **botanical**
*adj.* of, pertaining to, made from, or containing plants
*phytological*
One of the most beautiful botanical gardens in the United States is the wild and lovely Magnolia Gardens in South Carolina.

16. **ambidextrous**
*adj.* able to use both hands equally well; unusually skillful
*talented, gifted, adept*

Right-handers are said to make up 80% to 90% of all people and left-handers 5% to 15% while the remaining tiny percentage is **ambidextrous**.

17. **advent**
*n. a coming or arrival; a first appearance
*arrival, appearance*

With the **advent** of the Vietnam War, the Air Force wanted a system to help it navigate over the jungles of Southeast Asia.

18. **alien**
*adj.* from another country or society; connected with creatures from another world
*exotic, foreign, outlandish*

The **alien** in the Earth’s core make it a far more alien world than space.

19. **boulder**
*n. a large piece of rock that has been rounded and worn smooth by weathering and abrasion
*rock*

The mineral particles found in soil range in size from microscopic clay particles to large **boulder**.

20. **stable**
adj. firmly balanced or fixed; not likely to wobble or fall over

steady, secure, firm

A roadbed supplies a **stable** base for a highway.

21. **permeable**  cf. permeate

adj. allowing certain liquids or gases to pass through something

penetrable, pervious

In some cases, wells can draw water from a **permeable** rock layer.

22. **eject**

v. to throw out someone or something with force

banish, boot, expel

Geysers periodically **eject** streams of hot water into the air.

23. **hem**

v. to surround something closely and prevent its movement

enclose, encase, hedge

The Great Basin is **hemmed** in by the Sierra Nevada Mountains to the west and by the Rocky Mountains to the east, giving it no outlet to the sea.

24. **core**

n. the innermost, central, essential, or unchanging part

center, heart, nucleus

The asteroids’ compositions are believed to be similar to that of Earth’s iron **core**.

25. **hamper**
v. to hinder the progress or movement of someone or something
impede, obstruct, block

Bad weather hampered the rescue crews trying to locate the life rafts.

26. synthesize
v. to combine simple parts to form a complex whole; to make or produce
combine, mix, compose

It is important to note that animal cells cannot synthesize some complex molecules from simple compounds.

27. delicate
adj. easily damaged or broken; made or formed in a very careful and detailed way
fragile, breakable, exquisite

Earth is not too close or too far away from the sun to upset the delicate temperature requirements of life.

28. fuel
1) n. any material that releases energy when burned
2) v. to fill or feed with fuel
1) energy, power 2) feed, nourish

The sun is fueled by thermonuclear reactions near its center that convert hydrogen to helium.

29. shrink
v. to make or become smaller in size or extent
wither, shrivel, contract

About 5 billion years from now, the sun’s core will shrink and become hotter.
30. **efficiency**

*n.* the quality of doing something well with no waste of time or money

**effectiveness, productivity**

*Even some supporters of alternative energy realize that the easiest way to cut carbon emissions is to focus more on efficiency.*
1. appeal
n. an urgent or formal request for help; the quality of being attractive or interesting
solicitation, attraction, charm

The appeal of iron comes from its low cost, strength, and resistance to fire.

2. bind
v. to tie or fasten tightly; to force someone to do something by making him or her promise to do it
tie, constrain, obligate

Hotels were some of the earliest places that helped bind the United States together.

3. sway
v. to swing or to make something swing; to incline toward a particular opinion
wave, swing, tilt

In high winds, skyscrapers will sway slightly.

4. beneficial
adj. having good results or benefits
helpful, useful, advantageous

Some bacteria are beneficial since they stimulate plant life through food decomposition.

5. allude
v. to mention something indirectly; to speak about something in passing
hint, mention, refer
The word “zigzag” alludes to the geometric ornamentation.

6. **alter**
   v. to become different or to make something or someone become different
   change, convert, transform

   As Earth developed, the concentrations of the pollutants were **altered** by various chemical reactions.

7. **appreciation**
   n. sensitive understanding of the value or quality of something
   recognition, understanding, admiration

   With concerns about the loss of species, there is a growing **appreciation** for the importance of biological diversity.

8. **barren**
   adj. not able to produce crops or fruit; not able to bear offspring
   infertile, sterile, unproductive

   We can see large, pristine forests on one side and an almost **barren** land devoid of trees on the other side.

9. **comparatively**
   adv. according to an estimate made in comparison; not absolutely
   relatively, nearly, approximately

   The first attempt to dig the canal was made by private companies, and only a **comparatively** small portion was built.

10. **clue**
    n. a fact or circumstance which helps toward the solution of a crime or a mystery
There were no clues as to how the animal died.

11. **voluminous**  
*adj.* producing great quantities of writing; enough to fill many volumes  
**copious, bulky, huge**

The ecologist had **voluminous** correspondence and frequent discussions with other experts in the field.

12. **thrive**  
*v.* to grow strong and healthy  
**prosper, flourish**

Barley, unlike most other grains, **thrives** at high altitudes, so it can be grown in many places.

13. **facilitate**  
*v.* to make something easy or easier to do or to achieve  
**expedite, ease, promote**

Research into hydrogen technology was **facilitated** by money from Congress.

14. **boundary**  
*n.* a line or border marking the farthest limit of an area  
**border, bounds, limit**

Lake Superior forms a natural **boundary** between the United States and Canada.

15. **advocate**  
*n.* someone who supports or recommends an idea or proposal  
**proponent, supporter, patron**
Advocates of organic foods frequently proclaim that such products are safer and more nutritious than others.

16. **cope with**
   *ph.* to manage successfully; to deal with
   **handle, dispose of**

   The human body is usually unable to **cope with** extremely hot or cold temperatures.

17. **crucial**
   *adj.* extremely important because the thing will affect others
   **decisive, critical, vital**

   Obviously, muscles are **crucial** to the human body.

18. **inhibit**
   *v.* to hold back or prevent an action, desire, or progress; to prohibit someone from doing something
   **check, restrain, bar**

   Antibiotics **inhibit** the growth of bacteria.

19. **illusion**
   *n.* a deceptive or misleading appearance
   **fantasy, delusion, hallucination**

   Optical **illusions** deceive the eye with tricks of perception.

20. **specimen**
   *n.* a small amount of something that shows what the rest of it is like; a sample or example of something, especially something that will be studied
Many medical tests require a blood specimen.

The new vaccine represented a significant breakthrough in the battle against the virus.

By the 1500s in Europe, the collected knowledge of the human body was codified.

Thomas Eakins studied not only painting but also anatomy when he was training to become an artist.

Burning rubber produces an acrid smoke.

The dead body of a human being or an animal

The decomposing corpse of a dead ant is generally removed from the colony by worker ants.

26. **finite**

*adj.* having an end or limit

**limited, restricted, bounded**

Many people fear that Earth’s supply of oil is **finite** and that we will run out of energy someday.

27. **ignite**

*v.* to set fire to something

**burn, inflame, kindle**

When exposed to air, phosphorous **ignites** spontaneously and forms white fumes when it burns.

28. **manipulate**

*v.* to handle something or to work something with the hands, especially in a skillful way

**control, operate, direct**

The pilot must **manipulate** the controls to take off, to change directions and speed, and to land.

29. **drainage**

*n.* a process or system by which waste liquid flows away

**draining, sewage**

That province has a history of underground faults that has created an efficient water **drainage** system.

30. **ventilate**

*v.* to allow fresh air to circulate throughout a room or a building

**air**
Most modern barns are insulated, ventilated, and equipped with electricity.
1. **daring**

   *adj.* brave enough to do risky things; new or unusual in a way that may shock people
   
   **courageous, adventurous, bold**

   *Richard Bird and his pilot Floyd Bennett undertook a *daring* flight to the North Pole in May 1926.*

2. **depress**

   1) *v.* to weaken something; to make something lower
   2) *v.* to make someone sad and gloomy
   1) **weaken, lower** 2) **dishearten, sadden**

   *Rent controls have artificially *depressed* the most important long-term determinant of profitability: rents.*

3. **disaster**

   *n.* an event causing great damage, injury, or loss of life
   
   **calamity, catastrophe, cataclysm**

   *When their crops failed, it was a *disaster* that caused many people to lose their lives.*

4. **domain**

   *n.* the scope of any subject or area of interest
   
   **field, realm, sphere**

   *The empire was silently, but quickly, extending its *domain.*

5. **decipher**

   *v.* to translate a text in an unfamiliar or strange form of writing into ordinary language
They could **decipher** the tablets because the language was a Semitic one that scholars had first translated a decade ago.

6. **ascend**

*vt.* to climb something or to move to a higher position

**arise, climb, mount**

The pueblo architects laid out a system of public roads with stone staircases for **ascending** cliff faces.

7. **avid**

*adj.* very enthusiastic about something

**ardent, eager, passionate**

President Theodore Roosevelt was an **avid** conservationist who believed in preserving nature.

8. **restrict**

*vt.* to keep someone or something within certain limits

**confine, limit, restrain**

The study of fossilized footprints is not **restricted** to examples from millions of years ago.

9. **roughly**

*adv.* not exactly

**approximately, around, about**

The population **roughly** doubled every generation during the rest of the nineteenth centuries.

10. **settled**

*adj.* established in some routine
arranged, fixed, inhabited

With *the settled* routine of Neolithic farmers came the evolution of towns and, eventually, cities.

11. **attire**
   
   *n.* clothes, especially formal or elegant ones
   
   *clothes, apparel*

   *He indicated several weeks ago that he would wear formal *attire* at his inauguration.*

12. **component**
   
   *n.* any of the parts or elements that make up a machine, engine, or instrument
   
   *constituent, element, factor*

   *The time scale is divided into three time *components*; eons, eras, and periods.*

13. **considerable**
   
   *adj.* fairly large, especially large enough to have an effect or be important
   
   *notable, sizable, substantial*

   *The book was a *considerable* improvement over the only other instruction manual existing at the time.*

14. **thanks to**
   
   *ph.* because of
   
   *owing to, as a result of*

   *Thanks to the unending pressures of the work, he decided to quit his business.*

15. **adversary**  *cf. adverse*
   
   *n.* an opponent in a competition
   
   *enemy, foe, opponent*
By adulthood, Genghis had been through a series of rough-and-tumble encounters with various **adversaries**, who tried to enslave or kill him and his family.

16. **afterlife**  
*n.* the life that some people believe people have after death

**hereafter**

*It is said that death is a new beginning when the deceased passes from the restrictions of this life into the **afterlife**.*

17. **compose**  
v. to create music, poetry, or something else; to make up or constitute something  
**set to music, constitute, form**

*Certain films had music specifically **composed** for them.*

18. **costume**  
*n.* a set of clothing of a special kind, especially of a particular historical period  
**apparel, attire, dress**

*Wearing masks and **costumes**, they often impersonated other people, animals, or supernatural beings.*

19. **overall**  
*adj.* including everything  
**total, whole, entire**

*A book's table of contents provides readers with an **overall** idea of what it is about.*

20. **assimilate**  
v. to become a part of a country or community; to completely understand and begin to use new ideas,
The immigrants quickly assimilated to life in their new country and learned both its language and customs.

21. assumption
n. something that is accepted as true without proof
presumption, supposition

The assumption of many experts is that drama evolved from various rituals.

22. attachment  cf. attach
n. an act or means of fastening; liking or affection
fastening, bond, affection

Emotional attachments play a significant role in the decisions that people make.

23. carry out
ph. to do the work of; to bring, take, or convey something
perform, convey, transport

African-American graphic artists carried out efforts to increase and promote the visual arts.

24. coin
1) v. to invent a new word or phrase
2) v. to manufacture coins from metal
1) originate, create 2) mint, stamp

The term “beat” was coined by Herbert Huncke, who meant it to be a synonym for tired or down and out.
25. **aristocracy**

*n.* the highest social class, usually owning land and having titles

gentry, upper class

*He is a member of the aristocracy but has little in terms of monetary wealth.*

26. **bland**

*adj.* without any excitement, strong opinion, or special character; having very little taste

boring, insipid, tasteless

*The main issue was that such a rigid structure made the opera bland and at times predictable.*

27. **emphasize**

*v.* to put an emphasis or stress on something

stress, highlight, underscore

*Mothers exaggerate their facial expressions, hold vowels longer, and emphasize certain words when they communicate with their children.*

28. **dialect**

*n.* a form of a language spoken in a particular region or by a certain social group

vernacular, tongue

*They studied the local dialect and wrote stories which focused on life in specific regions of the country.*

29. **come up with**

*ph.* to produce something or to have an idea

conceive, hit upon

*Companies are being required to come up with innovative ways of cutting costs because of the*
economic circumstances.

30. **current**
   1) *adj.* belonging to the present
   2) *n.* the continuous steady flow of a body of water, air, or heat in a particular direction
   1) **present, contemporary** 2) **flow, stream**

*The term “folk song” has been current for over a hundred years.*
1. **spark**
v. to emit sparks of fire or electricity; to stimulate, provoke, or start
*ignite, stimulate, initiate*

*The booming economy sparked an explosion in real estate development.*

2. **devastate**
v. to cause great destruction in or to something
*ruin, destroy, ravage*

*After the war devastated the country, it took many years for everything to be rebuilt.*

3. **encourage**
v. to give support, confidence, or hope to someone
*cheer, hearten, inspire*

*The state government encouraged the internal improvements of the corporations in two distinct ways.*

4. **effect**
n. a result or condition produced by a cause; the way in which an event, action, or person changes someone or something
*result, consequence, impact*

*In the United States in the early 1800s, state governments had more effect on the economy than the federal government.*

5. **end**
n. an object or purpose
Toward the end – to restore stability to the economy – the government pursued several courses of action.

6. **toll**  
*n.* a fee or tax paid for the use of a bridge or road  
*charge, duty, impost*

The canal lived up to the investors’ expectations, quickly paying for itself through *tolls*.

7. **warrant**  
*v.* to justify something; to guarantee something as being of a specified quality or quantity  
*justify, promise, assure*

Further explanations were not warranted since everyone understood what was happening.

8. **phase**  
*n.* a stage or period in growth or development  
*state, period, stage*

A full-scale Keynesian policy should grant the government a role in all *phases* of economic life.

9. **fragrance** *cf.* fragrant  
*n.* sweetness of smell  
*odor, scent, balm*

Natural flavorings and *fragrances* are often costly and limited in supply.

10. **sheer**  
*adj.* complete and not mixed with anything else
The decade of the 1870s was a period in which the sheer number of newspapers doubled.

11. **significant**
   *adj.* important; worth noting or considering
   **critical, weighty, meaningful**

   The Civil Rights Act of 1964 was a particularly significant piece of legislation to African-Americans.

12. **concern**
   1) *n.* a feeling of worry about something important
   2) *n.* a company or business
   1) anxiety, apprehension 2) enterprise, firm

   A business concern with two or more owners is referred to as a partnership.

13. **sparse**
   *adj.* thinly scattered or dotted about
   **meager, scant, few**

   If the population in an area was sparse, the Black Death usually ran out of steam within a year.

14. **undertake**
   *v.* to accept a duty, responsibility, or task
   **take on, assume, accept**

   The Erie Canal was one of the greatest construction jobs that anyone had ever undertaken up to that point.

15. **catastrophic**
adj. relating a terrible event in which there is a lot of destruction
**calamitous, disastrous**

A tsunami can be a **catastrophic** event that kills thousands of people and destroys their homes and buildings.

16. **coincide with**

*ph.* to happen at the same time as

**concur with, clash with**

*The rapid growth of Boston** *coincided** with the immigration of huge numbers of people there.*

17. **alleviate**

*v.* to make pain, a problem, suffering, or something else less severe

**ease, relieve, mitigate**

*A support network of relatives and friends can** *alleviate** much of the burden of raising a child.*

18. **antagonistic**

*adj.* unfriendly; opposed to an idea or group

**hostile, opposing, conflicting**

*Most plantation owners were** *antagonistic** to the development of the towns.*

19. **declare**

*v.* to announce something publicly or formally

**announce, proclaim, pronounce**

*The United States declared war and quickly sent men to the European front during World War II.*

20. **deem**
v. to think of something in a particular way or as having a particular quality  
consider, judge, think

The president can make such regulations covering the prohibition of alcoholic liquors as may be deemed necessary.

21. equality  
n. the state or quality of being equal  
impartiality, fairness, equivalence

In 1957, Ralph Abernathy founded an organization devoted to achieving racial equality for black Americans.

22. collapse  
n. a sudden failure of something, such as an institution or a business, or a course of action  
break-down, downfall, disintegration

The enormous size of the Roman Empire made it increasingly difficult to defend, setting the stage for its eventual collapse in 476.

23. bar  
v. to officially prevent someone from doing something  
forbid, prohibit, ban

The political party urged that immigrants be barred from running for public office.

24. succinct  
adj. clearly expressed in a few words; to the point  
brief, concise, precise

He wrote a succinct and graphic account concerning the slum and housing problem in New York City.
25. **constrict**  
v. to make something narrower or tighter  
**compress, contract, squeeze**

*The experts predicted that growth could not continue and that the tight labor market would **constrict** the economy.*

26. **allegiance**  
*n.* a commitment and duty to obey and be loyal to a government or sovereign  
**faithfulness, fidelity, loyalty**

*While some of the Indians had formed **allegiances** with French Jesuit priests, they were far more suspicious of the British soldiers.*

27. **appealing**  
*adj.* evoking or attracting interest, desire, curiosity, or sympathy  
**attractive, inviting, fascinating**

*The most **appealing** publishing investments were small books that were steady sellers.*

28. **suit**  
v. to be appropriate to; in harmony with  
**fit, adapt, adjust**

*Reformers suggested that the education programs should **suit** the needs of the population.*

29. **cite**  
v. to mention something as an example, especially one that supports, proves, or explains an idea or situation  
**quote, mention, refer to**
When writing research papers, writers must **cite** the sources they use.

30. **flaw**

   *n.* a mistake, mark, or weakness that makes something imperfect

   **fault, defect, blemish**

   *A flaw in a jewel makes it less valuable.*
1. **disperse**  
v. to spread out over a wide area  
**diffuse, scatter, dissipate**

*The fact that white light is composed of various wavelengths may be demonstrated by dispersing a beam of light through a prism.*

2. **emerge**  
v. to come out from somewhere  
**appear, arise, turn out**

*The species emerged from the water and moved onto the land.*

3. **emit**  
v. to give out light, heat, a sound, or a smell  
**send out, discharge, eject**

*Certain gases such as neon emit light when exposed to an electrical current.*

4. **vertical**  
adj. pointing up in a line that forms an angle of 90° with a flat surface  
**upright, erect, perpendicular**

*Although there are both horizontal and vertical movements of air, the term “wind” applies only to horizontal movement.*

5. **exhilarating**  
adj. filling someone with a lively cheerfulness
invigorating, refreshing, cheering

Riding a space shuttle can be an **exhilarating** experience.

6. **dense**

*adj.* closely packed or crowded together

**compact,** **solid,** **thick**

The jungle is incredibly **dense** because of the huge amount of vegetation growing in it.

7. **determine**

*v.* to fix or settle the exact limits or nature of something; to form a firm intention

**conclude,** **decide,** **resolve**

Canadian researchers have discovered a set of genes that **determine** the lifespan of the common nematode, a type of worm.

8. **dissenting**

*adj.* disagreeing, especially openly or hostilely

**discording,** **disagreeing,** **conflicting**

Our understanding of these ancient beasts has grown slowly, with many **dissenting** opinions among the experts.

9. **edible**

*adj.* fit to be eaten; suitable to eat

**eatable**

*Celery,* an **edible** plant with long stalks topped with feathery leaves, grows best in cool weather.

10. **entire**
Entire crops can be wiped out by fungal attacks both before and after harvesting.

11. fatal
adj. causing or resulting in death
mortal, lethal, deadly

Honeysuckle is a shrub that has fatal white or yellowish blossoms.

12. succumb
v. to give in to pressure, temptation, or desire
surrender, yield, give up

Most birds would succumb to the harsh weather and die if they did not migrate south for the winter.

13. crave
v. to have a very strong, almost uncontrollable, desire for
desire, yearn, long for

Some insects may help ants by cleaning them or by giving them chemicals they crave.

14. upright
adj. standing straight up
erect, vertical, perpendicular

Kangaroos use their long and powerful tails to balance themselves when sitting upright or jumping.

15. venture
v. to be so bold as to; to attempt something dangerous
risk, gamble, dare

Must crustaceans live in the sea, but some live in fresh water, and a few have ventured onto land.

16. **brood**

*n.* a number of young animals, especially birds, that are produced or hatched at the same time

**offspring, progeny, young**

The mother duck led her **brood** into the pond.

17. **bring about**

*ph.* to cause to happen, occur, or exist

**cause, produce, effect**

Earthworms **bring about** changes in the soil by enriching it and making it more fertile.

18. **carry**

1) *v.* to hold something in one’s hands or back while moving

2) *v.* to support something’s weight on one’s body

1) **convey, transport** 2) **support, maintain**

Some parts of the lithosphere **carry** the ocean floor, and others carry land masses or a combination of the two types.

19. **comprise**

*v.* to contain, include, or consist of something specified

**compose, form**

The core, mantle, and crust **comprise** the three layers of the Earth.

20. **uncharted**
adj. not fully explored or mapped in detail; not yet examined or fully investigated
unmapped, unexplored, unknown

The ocean bottom is a vast frontier that even today is largely unexplored and uncharted.

21. dot
1) v. to scatter; to cover with a scattering
2) n. a small and round mark
1) spot, fleck 2) speck, point

Steep, round hills called knobs dot southern Indiana.

22. imaginary
adj. existing only in the mind or imagination; not real
imagined, fictitious, fictional

The equator is an imaginary line running around the center of the Earth.

23. receptacle
n. a container or device that receives or holds something
container, holder, repository

The broken valleys of the Great Basin provided ready receptacles for the moisture.

24. diminish
v. to become or make something less or smaller
decrease, reduce, dwindle

The power of a hurricane becomes immediately diminished once over land because it is disconnected from its warm-water energy source.
25. **balmy**
*adj.* warm and soft

gentle, mild

*The Virgin Islands, located in the Caribbean Sea, have a balmy climate.*

26. **desperately**
*adv.* recklessly or dangerously because of despair or urgency

*impetuously, urgently, hopelessly*

*The moon and Mars could be a future source of natural resources desperately needed on Earth.*

27. **flame**
*v.* to burn with flames

*blaze, flare, glow*

*Jupiter would have flamed as a star in its own light.*

28. **sustainable**
*adj.* capable of being sustained or maintained

*supportable, endurable, bearable*

*Something absolutely necessary for a sustainable human settlement is water.*

29. **terrain**
*n.* a stretch of land, especially with regard to its physical features

*topography, territory, landscape*

*The moon may be divided into two major terrains; the maria and the terrace.*

30. **extinguish**
v. to put out a fire
put out, quench

After two full weeks of trying to fight it, the fire from the explosion was finally **extinguished**.
1. **confine**  
v. to keep within limits; to keep in a small or enclosed space  
*restrict, limit, restrain*  

Workers in clay could generally afford to **confine** themselves to either decorated wares or housewares.

2. **dwelling**  
n. a house, flat, or something else where people live  
*habitation, house, residence*  

A few houses in New England were built of stone, but only in Pennsylvania and adjacent areas was stone widely used in **dwellings**.

3. **fasten**  
v. to make something firmly closed or fixed  
*tie, attach, lock*  

Before the plane takes off, passengers must **fasten** their seatbelts.

4. **raze**  
v. to destroy something like a building or a town completely  
*demolish, tear down, knock down*  

Wrecking balls are used to **raze** buildings.

5. **annihilate**  
v. to destroy something completely  
*exterminate, eliminate*
Human beings have the power to **annihilate** many species as well as damage the balance of their own balance with nature.

6. **clumsy**
   *adj.* unskillful with the hands or awkward and ungainly in movement
   **unhandy, ungraceful, awkward**

   *Seals appear** **clumsy** *on land, but they are able to move short distances faster than most people can run.*

7. **conceal**
   *v.* to hide; to place out of sight
   **hide, cover, secrete**

   *The researchers argued that the city was threatened by faults which lay **concealed** underground inside it.*

8. **critical**
   *adj.* of or being a moment of great danger, difficulty, or uncertainty
   **crucial, vital, momentous**

   *Biological diversity has become widely recognized as a **critical** conservation issue.*

9. **demise**
   *n.* the termination of existence or operation
   **death, loss**

   *A shortage of funds led to the **demise** of the program.*

10. **deplete**
v. to reduce greatly in number or quantity; to use up supplies, money, energy, or resources
consume, expend, exhaust

The remains of organisms are recycled in the earth, which is fortunate because, otherwise, soil and water would soon become depleted of essential nutrients.

11. sequence
n. a series or succession of things in a specific order; the order two or more things follow
series, succession, order

Equally interesting is the fact that the ants’ execution of multiple-step tasks is accomplished in a series-parallel sequence.

12. turbulent
adj. having a restless or uncontrolled quality; violently disturbed
wild, unruly, stormy

Small mammals suffer hardship in the exposed and turbulent environment of the uppermost trees.

13. typify
v. to be an excellent or characteristic example of something
exemplify, represent, symbolize

High mountains typify the terrain of Tibet and Nepal.

14. unprecedented
adj. without precedent; not known ever to have happened before
unheard-of, unusual

The developed countries of the world are using valuable resources at an unprecedented rate.
15. **feverish**  
*adj.* having a tendency to produce a fever; excited, restless, or uncontrolled  
*inflamed, fervent, passionate*

*The Civil War created* **feverish** *manufacturing activity to supply critical materials, especially in the North.***

16. **permanent**  
*adj.* lasting or intended to last for a long time  
*eternal, perpetual, everlasting*

*Heavy drinking can cause* **permanent** *damage to the brain.***

17. **maintain**  
1) *v.* to keep something in existence  
2) *v.* to continue to argue something  
1) *preserve, keep* 2) *contend, claim*

*Consumers are misled if they believe organic foods can* **maintain** *health and provide better nutritional quality than conventionally grown foods.***

18. **screen**  
1) *v.* to shelter or conceal  
2) *v.* to test someone in order to check for the presence of a disease  
1) *shield, cover* 2) *examine, scan*

*Now, all blood is rigorously* **screened** *for HIV and other viruses.***

19. **stride**  
*n.* a single long step in walking; an advance or development  
*pace, step, development*
From these studies, great strides have been made in treating patients.

20. **surpass**
   v. to go or be beyond in degree or extent
   *better, exceed, outdo*

   *It was reported that internal medicine would *surpass* surgery in value to the human race within the next twenty-five years.*

21. **unsubstantiated**
   adj. not substantiated; unable to prove the truth of something
   *unverified, unproved*

   *There are numerous *unsubstantiated* reports that natural vitamins are superior to synthetic ones.*

22. **ward (off)**
   v. to fend off, turn aside, or parry a blow; to keep trouble, hunger, or disease away
   *block, avoid, avert*

   *Some plants are able to *ward* off animals by emitting noxious fumes that drive them away.*

23. **articulate**
   v. to pronounce words or to speak clearly and distinctly
   *enunciate*

   *Each sound is considered and analyzed before it is *articulated.*

24. **element**
   n. a part of something; a component or feature
   *constituent, ingredient, factor*
Hydrogen, although it is the most abundant element in the universe, is not freely found on Earth.

25. fabric
   n. woven, knitted, or felted cloth

   textile, cloth

   Natural silk is highly prized in spite of the availability of similar artificial fabrics.

26. serve as
   ph. to be in the service of; to work for

   function as, act as

   Pheromones are substances that serve as chemical signals between members of the same species.

27. brittle
   adj. hard but easily broken or likely to break

   fragile, breakable, weak

   Steel is not as brittle as cast iron, so it does not break as easily.

28. vibration
   n. a vibrating motion; a single movement back and forth in vibrating

   oscillation, shaking, shivering

   The sensation of sound is produced when vibrations transmitted through the air strike the eardrum.

29. dazzling
   adj. temporarily blinding; fascinating

   brilliant, bright, dizzying

   The snow on the mountaintop was dazzling in the bright morning sun.
30. **device**

*n.* a tool or instrument made for a special purpose

**instrument, apparatus, contrivance**

*An odometer is a device used to measure distance.*
1. **outlaw**
n. someone who has committed a crime

*gangster, desperado, criminal*

*Jesse was an outlaw, a bandit, and a criminal.*

2. **enable**
v. to make someone able to do something

*entitle, empower, capacitate*

*The economic aid would only last long enough to enable the people to help themselves.*

3. **fundamental**
adj. serving as or being an essential part of a foundation or basis

*essential, rudimentary, basic*

*The fundamental ideals embodied in the Constitution should not be lightly considered.*

4. **ignorant**
adj. lacking knowledge or information about something

*unknowing, unaware, unlearned*

*Critics ignorant of the conditions attacked the proposed method to fix the problem as wasteful and dangerous.*

5. **transportation**
n. the act of transporting or the process of being transported

*conveyance, moving, carriage*
Steam travel finally became a viable means of transportation in the late eighteenth centuries.

6. **behold**
   v. to look at something or someone
   notice, see, look at

   The steamboats must have been something to behold on the rivers due to their size and elaborate, even luxurious, construction and appearance.

7. **mobility**  cf. mobile
   n. the ability to be moved easily
   movability, portability, transportability

   The troops’ mobility was their greatest asset in warfare.

8. **moreover**
   adv. beside what has been said; and what is more important
   in addition, besides, furthermore

   Moreover, even when people in different places use the material in a similar manner, the style of their work still varies.

9. **chore**
   n. a domestic task; a boring or unenjoyable task
   drudgery

   The earliest pottery was used for chores, with no attempt to make them works of art.

10. **partition**
    v. to divide into parts, pieces, or sections
Partitioned rooms in log houses became the new style as they replaced the simple cabins people used to live in.

11. **paramount**

   *adj.* greater than all others in importance or influence; of supreme importance

   **primary, supreme, predominant**

   *Tradition is paramount, and most tribes are hesitant to make any changes.*

12. **durability**

   *n.* the ability to be strong and to last for a long time without breaking or becoming weaker

   **endurance, stability, firmness**

   *The durability of the pottery was crucial to the tribes since making ceramics was not easy for them to do.*

13. **establish**

   *v.* to set up

   **create, found, organize**

   *The Rodeo Cowboy Association was founded in 1936 to establish standards and regulations for the sport.*

14. **ethnic**

   *adj.* relating to or having a common race or cultural tradition

   **racial, native**

   *The Harlem Renaissance combined realism, ethnic consciousness, and Americanism.*
An assortment of bones was found at the site, which helped improved scientists’ understanding of the ancient culture.

Clarity and structure became the foundation of the opera seria.

In 1905, he went to Paris to work with an art dealer, and it was there that he later witnessed the formative years of Cubism.

Ordinary citizens sometimes devote their entire lives to serving humanity unselfishly.

These images are meant to enforce how foolish and pitiful the character really is.
20. **essence**  
*n.* the basic distinctive part or quality of something, which determines its nature or character; a basic nature  
nature, principle, core

The *essence* of folk music is how it reflects the humanity of the people who created it.

21. **climax**  
*n.* the high point or culmination of a series of events or of an experience  
peak, apex, culmination

Arias usually followed as a **climax** and revealed the emotion or internal conflict of the actors.

22. **composite**  
*n.* a combination of two or more materials  
aggregate, combination, compound

Some say that neither the Iliad nor Odyssey was written by a single poet but rather that each poem is a composite of the writings of several people.

23. **encompass**  
*v.* to surround completely; to include or be concerned with  
encircle, enclose, include

The term “art deco” has come to **encompass** three distinct but related design trends of the 1920s and 1930s.

24. **deliberate**  
*adj.* done on purpose or as a result of careful planning  
intentional, planned, careful
The artist began the deliberate process of painting the individual flowers in his landscape.

25. **husbandry**
   *n.* the farming business
   **farming, agriculture**

The advent of animal **husbandry** led to advancements in every aspect of human development from science to psychology.

26. **hallmark**
   *n.* a typical or distinctive feature, especially of quality
   **characteristic, identification**

One **hallmark** of jazz music is the way that the best musicians can improvise so easily during their performances.

27. **gesture**
   *n.* the movement of the body as an expression of meaning
   **motion, indication, signal**

In all cultures, **gestures** are used as a form of communication.

28. **discipline**
   1) *n.* strict training or the enforcing of rules
   2) *n.* an area of learning
   1) **drilling, regulation** 2) **field, area**

Every scientific **discipline** tends to develop its own special language because it finds ordinary words inadequate, and psychology is no different.

29. **gala**
an occasion of special entertainment or a public festivity

\textit{celebration, festival, feast}

Many people celebrate the new year with \textit{gala} parties.

30. \textit{immerse}

v. to put completely under water

\textit{sink, dip, submerge}

Daguerre discovered that an image could be made permanent by \textit{immersing} it in salt.
1. **engage in**
   *ph. to take part in; to be involved in*
   **participate in, partake in, enter into**

   *In the early 1800s, over 80 percent of the United States’ labor force was engaged in agriculture.*

2. **exclusive**
   *adj. involving the rejection or denial of everything else*
   **sole, only, unique**

   *A copyright is an exclusive right to copy, sell, or perform a creative work such as a book or play.*

3. **halt**
   *n. an interruption or stop in movement, progression, or growth*
   **stop, cessation, standstill**

   *World War II began, which brought an immediate halt to all commercial airline service to Europe as well as Asia.*

4. **precious**
   *adj. of great value, especially because something is very expensive or much loved*
   **valuable, dear, beloved**

   *Salt was once so precious that some cultures used it as a form of money.*

5. **prosper**
   *v. to do well, especially financially*
   **flourish, thrive, succeed**
Trade with Britain and the West Indies allowed Colonial seaports such as Boston to **prosper**.

6. **sluggish**
   *adj.* unenergetic; habitually lazy or inactive
   *stagnant, lethargic, lazy*

   Some economists believe that the best way to get a **sluggish** economy moving again is to cut taxes.

7. **sound**
   *adj.* not damaged or injured; in good condition
   *undamaged, unimpaired, firm*

   Government bonds and blue-chip stocks are **sound** investments.

8. **ware**
   *n.* manufactured goods of a specified material or for a specified range of use
   *merchandise, commodity, supply*

   *In the past, many salesmen tried to sell their **wares** door-to-door.*

9. **pervasive**
   *adj.* tending to or having the power to spread everywhere
   *prevalent, widespread, permeate*

   *The influence of the thoughts has been so **pervasive** that its theoretical approaches have come to be known in academic circles as the Chicago School.*

10. **nurse**
    *v.* to hold something with care; to look after sick or injured people
    *care for, look after, attend*
Female lions cannot go into estrus and get pregnant while they are nursing lion infants.

11. **proceed**
   v. to make one’s way; to go on
   *advance, progress, continue*

   Real estate subdivision in the cities **proceeded** much faster than population growth.

12. **donate**
   v. to give, especially to charity
   *contribute, bestow, grant*

   In 1899, Mary Elizabeth Brown **donated** a couple of hundred musical instruments to the museum.

13. **remarkably**
   adv. considerably; significantly
   *noticeably, unusually, extraordinarily*

   The urban population grew **remarkably** quickly during this time, mostly because people were moving to the cities to look for work.

14. **gregarious**
   adj. seeking and enjoying the company of others
   *companionable, sociable*

   A **gregarious** person avoids solitude.

15. **confer**
   v. to grant someone an honor or distinction
   *give, award, present*
In the family, traditional cultural patterns confer leadership on one or both of the parents.

16. **constitute**

* v. to be an element or part of; to establish laws or an institution
  *form, compose, establish*

A soldier’s refusal to commit an illegal act does not constitute rebellion.

17. **linear**

* adj. of, consisting of, or using lines; extended or arranged in a line
  *straight, straightway*

The usually uncritical acceptance of this thesis led in turn to the assumption that the application of science to industrial purposes was a linear process.

18. **bias**

* n. an inclination to favor or disfavor one side against
  *inclination, prejudice, leaning*

Throughout the 19th century and into the 20th century, farmers in the U.S. maintained a bias against big cities.

19. **exempt**

* adj. free from some obligation; not liable
  *excused, free, immune*

Some parents were motivated to send their children to private schools, which were exempt from governmental restrictions.

20. **negligible**
adj. small or unimportant enough to ignore
trivial, insignificant, trifling

Although the accident appeared serious, only a negligible amount of damage was done.

21. **impose**

v. to make a payment of a tax or fine; to make the performance of a duty compulsory
levy, place, force

The government imposed strict regulations on the people for the duration of the war.

22. **reckless**

adj. heedless of the consequences of one’s actions or behavior
rash, careless, imprudent

Motorists can be fined for reckless driving.

23. **bound**

n. a limit or boundary; a limitation
border, confines, extent

Education knows no bounds.

24. **atheist**

n. a person who denies or disbelieves the existence of a supreme being or beings
nonbeliever, infidel

Allen was an outspoken atheist who was an advocate of deistic thought.

25. **detect**

v. to see or to notice; to discover the presence of
uncover, discover, notice

The objective of the experiment was to detect consciousness in animals to see if they are self-aware or not.

26. **milestone**

*n. a very important event; a significant point or stage*

landmark

Gallup’s report of the experiment was milestone in our understanding of animal minds.

27. **overthrow**

*v. to defeat completely an established order or a government*

overpower, dethrone, defeat

In 509 B.C., the Roman Republic was established after the citizens of Rome overthrow the ruling Etruscans.

28. **overtax**

*v. to demand too much tax from someone; to burden heavily*

overload, overdo

The public school system suddenly found itself overtaxed.

29. **headquarter**

*v. to locate the center of an organization or group from which activities are controlled*

base

The International Herald Tribune, which is co-owned by the Washington Post and The New York Times, is headquartered in Paris.
Although he was a sickly child, Theodore Roosevelt eventually became a **zealous** outdoorsman who extolled the virtues of vigorous exertion.
Chapter 03 UNIT 11 Natural Sciences

1. **formulate**  
v. to express something in terms of a formula; to express something precisely and clearly  
**systematize, devise, articulate**

*Some possible solutions to the problem are being formulated.*

2. **incorporate**  
v. to contain something as part of a whole; to combine something  
**consolidate, merge, unite**

*When hypotheses are confirmed, they are into incorporated theories.*

3. **strand**  
*n. a single thin piece of thread, wire, or hair*  
**string, fiber, thread**

*Ropes are cords at least 0.15 inches in diameter and are made of three or more strands which are themselves formed of twisted yarns.*

4. **cell**  
*n. a piece of equipment for producing electricity from*  
**chemicals, heat, or light**

*His subsequent hydrogen fuel cells never produced enough electricity to justify the expense of creating them.*

5. **flourish**  
v. to be strong and healthy; to grow well
prosper, thrive, flower

Tulips also *flourished* in Pennsylvania.

6. **frigid**
   
   *adj.* cold and unfriendly.
   
   **cold, frosty, chilly**

   *During the frigid* winters, *food sources become scarce, and migration to more fertile feeding grounds becomes mandatory for their survival.*

7. **instance**
   
   *n.* an example, especially one of a particular condition or circumstance.
   
   **case, illustration, occurrence**

   *In many instances, the specimens are less than one-tenth of a millimeter in diameter.*

8. **gap**
   
   *n.* a space between two things or in the middle of something.
   
   **rift, crevice, hole, cavity**

   *The crossbill winds its long tongue into the gap of the nut and draws out the seed.*

9. **fuse**
   
   *v.* to melt as a result of the application of heat; to join by, or as if by, melting together.
   
   **melt, blend, combine**

   *The male and female reproductive organs of orchids are fused together into a single structure.*

10. **lump**
    
    *n.* an irregularly shaped mass or piece.
As centuries passed, lumps of the resin were covered by layers of soil.

This finding sheds new light on the inexorable process of aging and death.

The heart of a comet is typically quite solid and can be more than ten kilometers in diameter.

The difference between a hummingbird and a penguin is immense, but it is hardly as startling as the between a bat and a whale.

Typically, a colony consists of the queen, sterile female workers, and males.

n. a covering over something for decoration or protection; the upper level of the trees in a rainforest
The canopy holds plenty of climbing mammals that are moderately large.

16. **convert**  
v. to change the form or function of one thing into another  
alter, change, transform

The term “latent heat” refers to the energy that has to be used to **convert** liquid water to water vapor.

17. **demolish**  
v. to destroy or ruin a building or other structure on purpose; to tear down  
raze, smash, break down

When Mount St. Helens erupted in 1980, it **demolished** a large amount of the ice field that surrounded it.

18. **overcome**  
v. to fight successfully in a struggle or conflict  
get over, conquer, defeat

Nesting on a narrow ledge has its own peculiar problems, and the bird’s behavior has become adapted to **overcome** them.

19. **texture**  
n. the structure formed by smaller particles; the way the surface of a substance feels  
fabric, feel

The **texture** of the soil can be determined by physically changing the shape of the soil with one’s hands.
20. **initiate**
   v. to make something begin; to be responsible for starting
   **commence, launch, start**

   *In addition, snowfall may be* **initiated** *when mountainous regions cause moist air to elevate.*

21. **drench**
   v. to flow or make something flow in a thin stream or drops
   **drown, immerse, soak**

   *Despite the long-term lack of rain, deserts occasionally are* **drenched** *by violent storms.*

22. **adjunct**
   n. something attached or added to something else but which is not an essential part of it
   **appendage, attachment, accessory**

   *In North America, potash making quickly became an* **adjunct** *to the cleaning of land for agriculture.*

23. **uneven**
   adj. not smooth or flat; bumpy
   **irregular, rough, rugged**

   *Essentially, winds are nature’s way of balancing the* **uneven** *distribution of air pressure over the Earth.*

24. **tepid**
   adj. slightly or only just warm
   **lukewarm, warmish**

   *Hurricanes pose the greatest threat to human populations when they track eastward to the* **tepid** *waters of the Gulf of Mexico.*
25. **sporadically**  
*adv.* at irregular intervals; not continuously  
**occasionally, intermittently**

Lichens and moss grow on the rocks while small tufts of grass spring up **sporadically** in between the boulders and stones.

26. **obvious**  
*adj.* easily seen, recognized, or understood  
**clear, apparent, evident**

No two comets ever look identical, but they have basic features in common, one of the most **obvious** of which is a coma.

27. **plunge**  
*v.* to dive, throw oneself, fall, or rush headlong into something; to thrust or push something  
**fall, drop, pitch**

When the comet **plunged** into Jupiter’s atmosphere and struck the planet, astronomers were watching as closely as they could.

28. **suitable**  
*adj.* having the right qualities for a particular person, purpose, or situation  
**appropriate, fitting, proper**

If a **suitable** amount of water is found on the planet, it could enable colonies to be established much more easily.

29. **trek**  
*n.* a long and hard journey  
**trip, journey, hike**
GPS receiving devices are becoming standard in most new car designs and are a favorite of hunters and fishermen making long treks in the wilderness.

30. **peril**

*n.* grave danger, especially of being harmed or killed

**threat, risk, jeopardy**

While high winds are commonly associated with the **perils** of hurricanes, the most destructive factor is the accompanying storm surge as it strikes land.
1. **elaborate**

*adj.* complicated in design; carefully planned or worked out

**intricate, painstaking, meticulous**

Arriving in the New World during the 1600s, early American settlers had little resources for or interest in *elaborate* furniture.

2. **erect**

*v.* to put up or build something; to set up or establish something

**construct, create, found**

Many buildings in that style were *erected* nationwide thanks to government programs.

3. **rectangular**

*adj.* relating to a four-sided figure with opposite sides of equal length

**square, four-sided, right-angled**

Within its *rectangular* walls, permanent houses were built, replacing the thatched dwellings of the original Manhattanites.

4. **unify**

*v.* to bring two or more things together to form a single unit

**combine, integrate, unite**

All of the parks and squares were meant to supplement the major road, which was to remain the *unifying* factor for the entire system.

5. **aptly**
The road has been aptly called “the metropolitan corridor” of the American landscape.

6. **eliminate**

v. to completely get rid of something that is unnecessary or unwanted

remove, exterminate, obliterate

Certain species may be eliminated while others may survive for no particular reason.

7. **aquatic**

adj. involving or happening in water

marine, oceanic

Rodents dwell in various habitats, with some species being aquatic and others terrestrial.

8. **efficient**

adj. producing satisfactory results with an economy of effort

effective, proficient, economic

Believe it or not, diesel is both rich in energy and highly efficient.

9. **habitat**

n. the natural home of an animal or plant

home, niche, territory

Watching the behavior of diverse animal species in their natural habitats, Lopez and Tinbergen observed behavior patterns that promote survival.

10. **ensure**
v. to make something certain; to assure or guarantee something
assure, confirm, guarantee

The behavioral ensures that the young will stay close to their mother and be protected from danger.

11. stress
v. to emphasize or attach importance to something
accent, underscore, spotlight

The woods’ importance in the communities of colonial North America need hardly be stressed.

12. striking
adj. unusual or interesting enough to be easily noticed
extraordinary, remarkable, impressive

Perhaps the most unique aspect of butterfly diversity is the striking difference in species richness between tropical and temperate regions.

13. pliable
adj. able to bend without breaking or cracking
flexible, elastic, malleable

Platinum is harder than copper and is almost as pliable as gold.

14. teem with
ph. to be very full of people or animals, which are all moving about
proliferate with, swarm with, overflow with

The waters off the east coast of the United States once teemed with immense schools of fish, some as many as a mile across.
15. obtain
v. to get something that is necessary
acquire, gain, procure

Vitamin C is obtained from citrus fruits.

16. nutritional
adj. relating to the substances in food that make or stay healthy
nourishing, nutritive, alimentary

If one’s basic nutritional needs are being met, he or she should not need to take vitamin supplements.

17. deter
v. to discourage or restrain from acting
inhibit, prevent, check

Another form of biological pest control is to include various plants in a garden or field that are known naturally to deter parasitic pests.

18. portable
adj. easily carried or moved and usually designed to be so
transportable, carryable, handy

Some stutterers carry a portable device that allows them to hear their own words with a time delay.

19. populate
v. to inhabit or live in a certain area
settle, occupy

Skeletal muscles populate the human body more than any other kind of muscles.
20. **precede**
v. to go or be before someone or something
**predate, lead, herald**

Occasionally, the episode may be **preceded** by some visible drowsiness, but it usually just hits out of nowhere.

21. **prescribe**
v. to advise a medicine as a remedy, especially by completing a prescription
**direct, specify, order**

In herbal therapy, special herbs are **prescribed** by a doctor to be taken in a hot liquid form.

22. **reaction**
n. a response to a stimulus
**reply, feedback, repulsion**

A chemical **reaction** that absorbs heat is called endothermic.

23. **respiratory**
adj. relating to breathing or the lungs
**breathing, respiring**

Examples of smooth muscle can be found in the **respiratory** tissues.

24. **at odds**
ph. at variance; in disagreement
**disagreeing, conflicting, on bad terms**

Scientists, physicians, and psychologists have often been **at odds** about how the brain functions.
25. **ingredient**

*n.* one of the parts that make up a whole

**constituent, element, factor**

*When the two ingredients are mixed together, under certain conditions, the results can be deadly.*

26. **noxious**

*adj.* causing or capable of causing harm; poisonous

**harmful, nocuous, toxic**

*One result of the industrial complex construction was an increased concentration of noxious chemicals in the air.*

27. **subject (to)**

*adj.* likely to be affected by something, especially something bad; being under domination, control, or influence

**vulnerable, prone, submissive**

*Plants are subject to attack and infection by a remarkable variety of symbiotic species and have evolved a diverse array of mechanisms designed to frustrate potential colonists.*

28. **protein**

*n.* a substance that exists in foods such as meat, eggs, and beans and which a body needs in order to grow and to remain strong and healthy

*A fever is caused when blood cells release proteins called pyrogens, which raise the body’s temperature.*

29. **artificial**

*adj.* made by human effort; not occurring naturally

**man-made, unnatural**
In a domed stadium, natural grass cannot be grown, so artificial turf is used on the playing field.

30. **harness**

v. to control and use the natural force or power of something

utilize, apply, exploit

Dams can harness the power of rivers, but they may also destroy their beauty.
1. **implication**
   *n.* a possible effect or result of an action or a decision; something that is suggested or indirectly stated
   *hint, insinuation, connotation*

   Pennsylvania’s colonial ironmasters forged iron and a revolution that had both industrial and political **implications**.

2. **accompany**
   *v.* to go along or in company with; to join in action
   *attend, go with, escort*

   Forms of music often accompanied the stories to instill emotion and climax in the history.

3. **dexterous**
   *adj.* skillful in physical movements, especially of the hands
   *deft, artful, shrewd*

   Dexterous with axes, snares, and fishing lines, these men blazed the trails, built the first log cabins, and confronted Native American tribes.

4. **prevent**
   *v.* to stop someone from doing something or from happening
   *prohibit, inhibit, forestall*

   The availability of fresh meat was very limited; there was no way to prevent spoilage.

5. **unrestricted**  cf. restrict
   *adj.* not limited by anyone or anything
unlimited, unimpeded, free

The herds of cattle no longer had **unrestricted** use of the plains for grazing, and the fencing led to conflict between the farmers and the cattle ranchers.

6. **administer**

v. to manage, govern, or direct one’s affairs or an organization

direct, manage

The National Marine Sanctuaries Program is **administered** by the National Oceanic Administration.

7. **migrate**

v. to travel from one region to another; to leave one place to settle in another

move, resettle, relocate

At this point, early groups of humans began to **migrate** both east and west.

8. **funeral**

n. the ceremonial burial or cremation of a dead person

burial, interment

**Funeral** rites have always played important roles in human history.

9. **innovative**

adj. introducing or using new ideas or ways of doing something

creative, imaginative, ingenious

One **innovative** approach on the functions of the stone tools involves studying damage and wear on them.

10. **frame**
The questions behaviorists framed and the techniques they used were designed to help them understand how people behaved.

11. **recall**
v. to bring back from memory

*recollect, remember, reminisce*

Some archeologists recalled complicated emotions when they had finally found the artifacts.

12. **excavate**
v. to dig up or uncover something, especially historical remains

*unearth, uncover, expose*

It was not until the 1890s that archaeologists excavating in city-states to the south of Nineveh found many thousands of tablets inscribed only in Sumerian.

13. **isolated**  cf. *isolate*

*adj. placed or standing alone or apart*  
*separated, secluded, unconnected*

The ideal situation for the creation of folk music is an isolated rural community.

14. **fashion**

1) v. to make something into a particular shape  
2) n. a way of making or doing something  

*make, manufacture  2) manner, way*

The Native Americans in northern California were highly skilled at basketry, using reeds, grasses, and
roots to fashion articles of all sorts and sizes.

15. coffin
n. a box into which a corpse is put for cremation or burial
casket, pall

The climax occurs at the end of the feast, when the body is placed in a coffin and carried to its final resting place.

16. conduct
v. to carry out a particular activity or process; to lead or guide
run, direct, manage

Recently, some anthropologists conducted an interesting case study in ethnology.

17. evoke
v. to cause or to produce a response or reaction
invoke, raise, make

The purpose of a poem need not be to inform the reader of anything but rather to evoke a feeling to create a sensual, aesthetically pleasing experience.

18. genius
n. someone who has an outstanding creative or intellectual ability
brain, intellect, mastermind

Today, his work tends to be poorly known among historians though some call him an intuitive genius far ahead of his peers.

19. imitate
v. to copy the behavior, manners, or appearance of someone; to use something as a model
Numerous assistants, who had been trained to imitate the artist’s style, applied the paint.

The pressures exerted along the foot, together with the length of the stride, which averaged 87 centimeters, indicated that the hominids had been walking slowly.

Annual cash awards are given to deserving artists in various categories.

Other investigators have noted that when mothers talk to babies who are only a few months old, they exaggerate the pitch, loudness, and intensity of their words.

In The Library of Babel, Borges describes an infinite library that contains all possible texts.
n. the top or highest point; the attainment or arrival at the highest point of glory, power, or something else
peak, zenith, climax

His death was simply a **culmination** of years and years of trouble, pain, and suffering.

25. **consciously**

*adv.* with full awareness of what one is doing
intentionally, deliberately, knowingly

In playing hot jazz, a musician **consciously** departs from strict meter to create a relaxed sense of phrasing that emphasizes the underlying rhythms.

26. **idiosyncratic**

*adj.* peculiar to a specific individual; rather unusual
eccentric, odd, strange

At first, the poems of Cummings gained notoriety for their **idiosyncratic** punctuation and typography, but they have been gradually recognized for their lyric power.

27. **elastic**

*adj.* able to return to its original shape or size after being pulled or pressed out of shape
flexible, stretchable, pliable

Sound is any disturbance that travels through an **elastic** medium, such as air, ground, or water, to be heard by the human ear.

28. **discrimination**

*n.* the ability to draw fine distinctions; biased judgment
discernment, prejudice

Babies enter the world with the ability to make precisely those perceptual **discriminations** that are necessary if they are to acquire aural language.
29. flamboyant
adj. brightly colored and easily noticed; excessively showy
fla鞋y, garish, eye-catching

In the 1960s, men’s clothing underwent revolutionary changes in color and fabric, becoming flamboyant for the first time in the 20th century.

30. embrace
1) v. to hold someone closely in the arms affectionately or as a greeting
2) v. to include something as a part
1) hug, clasp 2) include, encompass

Some of these artists came to truly embrace life in small towns and to reject city life and so-called “sophisticated society.”
1. **precipitous**
   *adj.* very sudden; dangerously high or steep
   
   *abrupt, steep, sheer*

   Besides ruining many thousands of individual investors, the **precipitous** decline in the value of assets greatly strained banks and other financial institutions.

2. **confront**
   *v.* to face someone; to prepare to deal firmly with something
   
   *encounter, face, defy*

   Staggering tasks **confronted** the people of the United States, both the North and the South, when the Civil War ended.

3. **tedious**
   *adj.* tiresomely long-winded or dull
   
   *boring, overlong, monotonous*

   The use of robots and automated machinery has eliminated certain **tedious** factory jobs.

4. **transition**
   *n.* a change or passage from one condition or place to another

   *alteration, change, conversion*

   The United States economy underwent a massive **transition**, and the nature of work was permanently altered.

5. **virtually**
In practice, though not strictly speaking, substantially, practically, nearly

The land surrounding Boston had always been poor farm country, and, by the mid-eighteenth century, it was virtually stripped of its timber.

6. courteously
adv. in a polite manner
politely, considerately, respectfully

Workers in the service sector should be trained to act as courteously as possible.

7. seasoned
adj. rendered competent through trial and experience
trained, experienced, veteran

Seasoned workers are more valuable to employers than beginners.

8. soar
v. to rise or fly high into the air
rise, increase, skyrocket

Cotton production soared as southern farmers turned their land into cotton plantations.

9. extraordinary
adj. very unusual or surprising; much greater or more impressive than usual
strange, abnormal, outstanding

The combination of new immigrants and old American “settlers” on America’s “urban frontier” in the late 19th century proved extraordinary.
10. magnify
v. to make something seem bigger or louder, especially using special equipment
amplify, enlarge, augment

Rapid industrialization and increased geographic mobility in the nineteenth century has special implications for women because these changes tended to magnify social distinctions.

11. makeup
n. the combination of characteristics or ingredients that form something
composition, constitution, arrangement

As the population grew, its makeup also changed.

12. merchandise
n. goods that are being sold
commodities, products, staples

The men bought or traded farm animals and acquired needed merchandise in the market.

13. metropolis
n. a very large city that is the most important city in a country or area
megalopolis, municipality

By 1930, the United States had ten giant metropolises.

14. corruption  cf. corrupt
n. a sinking to a state of low moral standards
depravity, perversion

Most lived in small towns and believed cities to be centers of corruption, crime, and moral degradation.
15. **descent**  
*n.* family origins or ancestry  
**lineage, bloodline, ancestry**  

Some cultures trace a person’s ancestry back through the mother’s line, which is known as the matrilineal system of **descent**.

16. **circulation**  
1) *n.* the passing of something from one person or place to another  
2) *n.* the distribution of a newspaper or magazine  
1) **distribution, diffusion** 2) **issuance**  

In fact, the **circulation** of weekly magazines exceeded that of newspapers in the period.

17. **competitiveness**  
*n.* the ability of a company, country, or a product to compete with others  
**rivalry**  

In the context of extreme **competitiveness** and dizzying social change, the household lost many of its earlier functions.

18. **disdain**  
*n.* a lack of respect accompanied by a feeling of intense dislike  
**contempt, scorn**  

Their disputes with Hamilton over his pro-business economic program and **disdain** for the common man contributed to the formation of the first U.S. party system.

19. **constraint**  
*n.* something that limits one’s freedom of action or choice  
**restraint, limitation, curb**
The time constraints prevented the subjects from finishing the test on time.

20. **budget**
   
n. an estimate of expected income and expenses for a given period
   fund, pool

   The military was restricted by its minuscule budget.

21. **particulars**
   
n. the facts and details about a job, property, or legal case
   details, specifics, minutiae

   The study revealed particulars that seem to hold true for the general population.

22. **step in**
   
ph. to become involved in an activity, discussion, or disagreement
   intervene, intercede

   The town board was forced to step in and put a stop to the development in the area.

23. **plead**
   
v. to ask someone for something in a very strong and serious way; to state in a court of law that one is guilty or not guilty
   petition, argue, assert

   In 1977, Richard Helms pleaded guilty to charges of inaccurately testifying about CIA activities in Chile.

24. **attune**
   
v. to adjust or to prepare for a situation or something
adjust, accord, harmonize

A new type of newspaper, one that was more attuned to the spirit and needs of the new America, appeared around this time.

25. **disgust**
   *n.* a strong feeling of dislike, annoyance, or disapproval

loathing, hatred, nausea

Eight pigeons were shown photographs of people displaying emotions of happiness, anger, surprise, and **disgust**.

26. **assessment**
   *n.* the act of calculating or deciding the value or amount of something

**estimation, evaluation, judgment**

One is a conscious, rational **assessment** of the danger, and the other is an unconscious, innate reaction.

27. **chance**
   1) *n.* likelihood that something will happen, especially something desirable
   2) *adj.* not planned or expected

1) **probability, prospect** 2) **accidental, causal**

A **chance** conversation with a stranger may lead a person to discover how little is known of other religions.

28. **integral**
   *adj.* being a necessary part of a whole

**essential, fundamental, elemental**

Education is a lifelong process that starts long before the start of school and is one that should be an
**integral** part of one’s entire life.

29. **palatial**  cf. *palace*

*adj.* like a palace in magnificence or spaciousness

**luxurious, grand, splendid**

Miami Beach is a popular year-round resort, famous for its gold coast hotel strip, *palatial* estates, and recreational facilities.

30. **adoption**

*n.* the act of taking and using as one’s own

**acceptance**

*In 1923, he began a campaign to promote the adoption of an amendment to the United States Constitution mandating equal rights for women.*
1. minute
   adj. very small
tiny, minuscule, little

Quarks are minute particles that are believed to be the fundamental unit of matter.

2. cross-sectional
   adj. made in horizontal sections
cross-sectioned

The strength of a rope is directly proportional to its cross-sectional area.

3. spike
   1) n. a large metal nail
   2) v. to rise dramatically
   1) peg, pin 2) skyrocket

The result was the most catastrophic nuclear disaster ever as radioactive levels spiked in the surrounding areas.

4. literally
   adv. according to the words and not the intention
   strictly, exactly, word for word

These animals were the pterosaurs, literally, the “winged lizards.”

5. merely
   adv. only as specified and nothing more
only, simply, purely

The plovers’ nests are merely scrapes in the sand or earth.

6. **random**
   adj. having no specific pattern
   accidental, haphazard, unsystematic

Far from being random, molting is controlled by strong evolutionary forces that have established an optimal time and duration.

7. **rear**
   v. to feed and educate children; to bring up
   nurture, raise, care for

Among the species of seabirds that use the cliffs on the Atlantic coast in Canada to mate, lay eggs, and rear their young are common murres.

8. **recruit**
   v. to enroll or obtain new members
   mobilize, draft, enlist

When they fight with insects from outside their colony, Argentine ants can quickly recruit a huge army from their network of nests.

9. **refuge**  cf. *refugee*
   n. a shelter or protection from danger or trouble
   haven, asylum, sanctuary

Wetlands provide refuge for many species of birds, reptiles, mammals, and amphibians.
10. **respiration**
   *n.* the act of respiring or breathing

**exhalation**

*The process of* **respiration** *in plants involves a complex series of chemical reactions.*

11. **robust**
   *adj.* strong and healthy; with a strong constitution

**vigorous, hardy, sturdy**

*This bird has a large, robust bill, yet it is not the most prominent feature on the animal.*

12. **rotting**  cf. **rotten**
   *adj.* decaying or causing to decay by a gradual natural process

**decomposing, decaying, spoiling**

*Both animals lived and foraged primarily in the soil and in rotting vegetation on the ground.*

13. **scramble**
   *v.* to crawl or to climb, especially hurriedly or frantically

**clamber, scrabble, crawl**

*The animal’s small size makes it easy for it to scramble for insects, flowers, or fruit among the twigs and branches in the canopy.*

14. **conspicuous**
   *adj.* visibly noticeable or obvious

**prominent, outstanding, vivid**

*Many mountaineers wear orange and other bright colors in order to be as conspicuous as possible.*
15. **seep**
   v. to pass slowly through small openings or pores
   *leak, drain, ooze*

   Millions of years ago in the Oligocene Epoch of Earth's history, clear resin **seeped** from pine trees growing in the Baltic Sea basin.

16. **dubious**
   *adj.* feeling doubt; unsure
   *doubtful, suspicious, ambiguous*

   They objected to the plan because the replenishment programs are costly and of **dubious** value.

17. **edge**
   *n.* the part farthest from the middle of something
   *border, boundary, rim*

   Prehistoric people used flint to make tools and weapons because it could be chipped into shapes with **sharp edges**.

18. **seismic**
   *adj.* relating to or characteristic of earthquakes

   The way that **seismic** waves travel shows that the Earth's interior is far from uniform.

19. **sort out**
   *ph.* to separate from a mass or group
   *classify, group, divide*

   To measure soil texture, the sand, silt, and clay particles are **sorted out** by size and weight.
The ability of oil companies to **squeeze** out more production by using new technology has added to the surplus.

Since then, over 100 tons of fossils, including 1.5 million tons from vertebrates and 2.5 million tons from invertebrates, have been recovered, often in densely concentrated **tangled** masses.

The **consistency** of the ocean floor determines what type of blast the trencher uses.

Working with toxic materials is a **hazardous** occupation.

Galaxies are the **major** building blocks of the universe.
25. subtle
adj. not straightforwardly or obviously stated or displayed
delicate, vague, abstruse

The available weather data are generally not detailed enough to allow computers to discern the subtle atmospheric changes that precede these storms.

26. primeval
adj. of the earliest period in the existence of something
early, prehistoric, primitive

For more than 15 years, astronomers have searched for such primeval galaxies, and many gave up the task after several surveys of the sky failed to find any.

27. graphic
adj. described or shown vividly and in detail
descriptive, explicit, lifelike

Dr. Dennis McCarthy, the chief of the branch that measures the Earth’s rotation, expressed the meaning of a second in another, perhaps more graphic, way.

28. solitary
adj. habitually alone, especially by choice
sole, single, lone

The solitary scientist making important discoveries by himself has been replaced by a cooperative scientific team.

29. molecule
n. the smallest particle of an element or compound that can exist independently
The molecular theory of matter, which considered all matter to be composed of tiny, indivisible entities called molecules, was developed.

30. **realm**  
*n.* a domain, province, or region; a field of interest, study, or activity  
territory, area, sphere

The invention of the visible-light microscope late in the sixteenth century introduced a previously unknown realm of single-celled plants and animals.
1. **install**
   v. to put equipment or machinery in place and to make it ready for use
   position, place, settle

   *The Baltimore and Ohio Railroad installed the first air conditioning system for trains in 1931.*

2. **spawn**
   1) v. to lay eggs; to give rise to something
   2) n. an offspring of someone or something
   1) generate, create 2) progeny

   *One invention often spawns many others.*

3. **subsequent**
   adj. happening after or following
   ensuing, following, succeeding

   *Modern architects have ignored the subsequent impact of industrialization on modern life.*

4. **stiffen** cf. stiff
   v. to make or become firm
   harden, solidify, thicken

   *Until the George Washington Bridge was built, modern suspension bridges were stiffened with steel trusses and beams to limit their motion in traffic and wind.*

5. **borough**
   n. a division of a large town
The commercial center of New York City, the island of Manhattan is joined to the other **boroughs** by bridges and tunnels.

6. **obligate**
   v. to force or compel somebody to do something
   **oblige, bind, compel**

   The Endangered Species Act of 1973 **obligates** the government to protect all animal and plant life threatened with extinction.

7. **extinction**
   n. the dying out of many animal species at more or less the same time
   **death, loss, destruction**

   Perhaps the human species was driving others to **extinction** long before the dawn of history.

8. **menace**
   v. to show an intention to damage or harm someone
   **threaten, intimidate, frighten**

   Bald eagles were hunted both for sport and because they were thought to **menace** livestock.

9. **innate**
   adj. belonging to or existing from birth
   **inborn, inherent, intrinsic**

   Scientists are exploring the **innate** weed-killing powers of living organisms, primarily insects and microorganisms.
10. **key**
   *adj.* centrally important

**essential, crucial, main**

*Sociality has several key advantages over solitary behavior.*

11. **preponderance**
   *n.* the state of being greater in amount, number, or something else

**supremacy, superiority, predominance**

*New World butterflies make up the preponderance of examples because they are the most familiar species.*

12. **profound**
   *adj.* far below the surface; very strongly felt

**deep, intense, great**

*The wrong policy has had a profound impact on Haiti’s development and has resulted in Haiti being the poorest nation in the Western Hemisphere.*

13. **reveal**
   *v.* to make a secret known; to disclose something

**expose, display, let out**

*The fossil record reveals that extinctions have occurred throughout the history of Earth.*

14. **evade**
   *v.* to escape or avoid something or someone by trickery or skill

**avoid, elude, escape**

*Many types of fish are continually stalking and evading one another.*
15. **bloodcurdling**
*adj.* causing a strong chilling fear or horror
*horrible, scary, gory*

A more **bloodcurdling** example, especially to human beings and most other species of fish, is the shark.

16. **puzzle over**
*ph.* to make a great effort of the mind in order to find the answer to a question
*ponder, contemplate, consider*

Doctors and psychologists in the past **puzzled over** the cause of the disease.

17. **skyrocketing**
*adj.* increasing rapidly
*soaring, rising*

It was just a decade before this that many drug companies found their vitamin sales **skyrocketing**.

18. **solely**
*adv.* only and not involving anyone or anything else
*alone, solitary, exclusively*

Ear acupuncture is involved **solely** with the ear and its numerous activation points.

19. **nervous**
*adj.* relating to the nerves; easily agitated
*agitated, anxious, on edge*

The **nervous** system of vertebrates is characterized by a hollow, dorsal nerve cord that ends in the head region.
20. **onslaught**
*n. a fierce attack; an onset*

**assault, attack, raid**

*In the face of this **onslaught**, living things have evolved a variety of defense mechanisms to protect their bodies from invasion by other organisms.*

21. **ratio**
*n. the number or degree of one class of things in relation to another*

**proportion**

*In the experiment, the **ratio** of helium to hydrogen nuclei remained about the same.*

22. **cautious**
*adj. careful to avoid risks*

**wary, watchful, alert**

*Workers must be very **cautious** when dealing with toxic substances.*

23. **physiological**
*adj. of or pertaining to physiology*

*Alternative therapies can work wonders as preventative methods for **psychological** as well as psychological problems.*

24. **aversion**
*n. a strong dislike*

**hatred, animosity, hostility**

*A person suffering from claustrophobia has an **aversion** to confined spaces.*
25. **outrage**
   v. to insult, shock, or anger someone greatly
   *enrage, infuriate, offend*

   *The patient survived, but the incident outraged the religious sensitivities of the times, and no further experiments were tried.*

26. **overlap**
   v. to partly cover another object
   *overlie, overlay*

   *One reason that there is much less emphasis on whether a person is considered to be “right-” or “left-brained” is that there is such an overlap in these areas.*

27. **odor**
   n. a distinctive smell, especially an unpleasant one
   *smell, scent, stink*

   *Each ant nest has its own odor as a result of its location, history, and local food supply.*

28. **petroleum**
   n. a naturally occurring oil consisting of a dark and thick liquid mixture of hydrocarbons

   *Pipelines transport huge quantities of natural gas and liquid petroleum products.*

29. **wholesome**
   adj. good for the body or likely to produce good health
   *healthy, nutritious, beneficial*

   *Whole grains and fresh fruits and vegetables are wholesome foods.*
It’s difficult for scuba divers to see when the water is murky.
1. **record**
   v. to set something down in some permanent form
   *write down, register, document*

   By 1820, it was a city of more than 10,000 people, and, by 1880, it had **recorded** a population of over one million.

2. **seize**
   v. to take or grab suddenly, eagerly, or forcibly
   *grasp, grab, capture*

   Many West Africans were **seized** and shipped unwillingly to the New World as slaves.

3. **concrete**
   adj. definite or positive, as opposed to vague or general
   *actual, tangible, specific*

   A good writer supports his or her generalizations with **concrete** examples.

4. **provisional**
   adj. under terms not final or fully worked out or agreed upon
   *temporary, interim, conditional*

   On February 7, the seven states adopted a **provisional** constitution for the Confederate States of America.

5. **traverse**
   v. to go across or through something
The ships could traverse great distances and bring American and other Allied fighting forces to face the Axis powers.

6. boost  
v. to improve or encourage something or someone  
lift, raise, encourage

Throughout the wilderness, bands provided entertainment and boosted morale.

7. employ  
1) v. to use a particular object or method  
2) v. to give work, usually paid, to someone  
1) utilize, apply 2) hire, recruit

The earliest way of keeping a count was by some simple tally method, employing the principle of one-to-one correspondence.

8. expose  
v. to remove the cover from something or to allow this to be the case  
uncover, reveal, unveil

The woolly mammoth and other mammals were periodically exposed in the tundra of Siberia.

9. favored  cf. favor  
adj. enjoying favor or preferential treatment  
preferred, selected, favorite

If such hunters first competed with the larger predators and then replaced them, they may have allowed more young to survive each year, gradually increasing the populations of favored species.
10. **glaze**  
*v.* to make something shiny; to cover plates or cups with a thin liquid  
**polish, coat, enamel**

*Kilns were also used for *glazing* pottery when two firings were needed.*

11. **indispensable**  
**adj.** absolutely necessary; essential  
**requisite, vital, crucial**

*From the very beginning, music was regarded as an *indispensable* accompaniment that people simply needed to listen to.*

12. **legacy**  
**n.** an amount of property or money left in a will  
**heritage, bequest, inheritance**

*The empire did not last long, but its *legacy* was far reaching.*

13. **inscribe**  
*v.* to write or engrave words on something, often as a lasting record  
**engrave, etch**

*Many other tablets were *inscribed* in another language that was not previously unknown and thus could not be translated.*

14. **majestic**  
**adj.** having or showing majesty; grand in manner  
**magnificent, imperial, grand**

*This high land ground is *majestic* but not forbidding.*
15. conjecture

v. to form an opinion about something even without much information on it
guess, suppose, estimate

It is conjectured that the Anasazi abandoned their settlements because of drought.

16. disguise

1) v. to change appearance in order to escape recognition
2) n. a disguised state
1) mask, deceive 2) camouflage, coverup

Contrary to folk songs, popular songs’ origins cannot be disguised, and therefore they belong primarily to the composer and not to a community.

17. excursion

n. a short trip, usually one made for pleasure
journey, expedition, jaunt

The art society’s activities also included organized sketching excursions along the Hudson River, where artists painted landscapes of the breathtaking scenery there.

18. outstanding

adj. very great or clear; extremely good
distinguished, remarkable, excellent

Mark Twain became the country’s most outstanding realist author.

19. epoch

n. a major division or period of history, or of a person’s life
era, age, period
The year 1850 may be considered the beginning of a new epoch in American art.

20. status
*n. a rank or position in relation to others within society or an organization standing, position, level*

*By the outbreak of the revolution in 1778, the status of the artists had already undergone changes.*

21. execute
*v. to perform or carry out something perform, fulfill, accomplish*

*Once again, an original portrait became a luxury that was commissioned by the wealthy and executed by the professional.*

22. flatter
*v. to praise someone excessively or insincerely compliment, butter up, fawn*

*While the nickname was not intended to be flattering, it was hardly inappropriate in his case, so he was not offended by it.*

23. forefront
*n. the very front; the most prominent or active position vanguard, head*

*The Enlightenment was a period of time in Europe in which people put human reason at the forefront of thought.*

24. dub
v. to give a name, especially a nickname, to someone
call, name, entitle

Over time, the style of the intermezzo caught on and was put on separately, eventually being dubbed the opera buffa.

25. exponent
n. a person who supports an idea, theory, or something else and persuades others that it is good
proponent, advocate, supporter

France produced a number of outstanding exponents of the Art Nouveau style, so many artists moved there to attempt to learn from them.

26. extol
v. to praise something very much
praise, celebrate, glorify

In the United States as well as in Great Britain, reformers extolled the virtues of handcrafted objects, thereby driving up their prices.

27. mimic
v. to imitate in a way that is meant to be amusing
copy, imitate, mirror

The tree seemed to mimic the Old Testament prophet Joshua waving people, with upraised arms, on toward the Promised Land.

28. intuitive
adj. attained by using feelings rather than by considering facts
instinctive, insightful

The converser’s tone can reflect intuitive sympathy or antipathy, lack of interest, fatigue, anxiety, or
even excitement.

29. caustic
adj. critical in a bitter or sarcastic way
biting, harsh, scathing

*Caustic* remarks can offend people, which is why people need to be careful of what they say in the presence of others.

30. skeptical
adj. having doubts that a claim or statement is true or that something will happen
doubtful, dubious, suspicious

They were *skeptical* about the plan; a railroad built through so challenging and thinly settled a stretch of desert, mountain, and semiarid plain could not make a profit.
1. **stem from**

*ph.* to arise or originate from
**derive from, come from**

The impressive gain in output **stemmed** primarily **from** the way in which workers made the goods.

2. **commerce**

*n.* the buying and selling of commodities and services
**trade, business, merchandising**

With the growth of international **commerce**, the economies of the world have become more interdependent.

3. **savage**

*adj.* untamed or undomesticated; cruel
**wild, barbaric, brutal**

The petroleum industry suffered from **savage** competition, and, in the 1870s, many oil industries failed.

4. **sleek**

*adj.* smooth, soft, and shiny
**glossy, satiny, slick**

Pan Am named the airplanes after the swift, **sleek** clipper ships that once sailed the world’s oceans during the nineteenth century.

5. **recession**

*n.* a period of reduced trade and business activity
During a depression, economic conditions are far worse than they are during a recession, which also lasts for a shorter period of time than a depression.

6. tranquil
adj. serenely quiet or peaceful; undisturbed

Manufactured in the tranquil New England town of Concord, the famous Concord Coach came to symbolize the Wild West.

7. stock
n. the total shares issued by a particular company

Corporations often raise funds by the sale of stock.

8. verge
cf. on the verge of
n. a limit, boundary, or border

Unfortunately, by the late 1930s, the whooping crane was on the verge of extinction and required protection in order to survive.

9. denounce
v. to inform against or to accuse someone publicly

Knight and Viner denounced economic imperialism, which viewed all social forces as having an economic explanation.
10. *era*  
*n. a distinct period in history marked by an important event  
epoch, time, age  
In every era, the lure of the city included a major psychological element for country people as it drew them to urban centers by the thousands.

11. *exceed*  
v. to be more than a particular number or amount  
excel, surpass, transcend  
In 1872, only two daily newspapers could claim a circulation of over 100,000, but, by 1892, seven more newspapers exceeded that figure.

12. *forward-looking*  
ext. planning for and thinking about the future in a positive way  
going ahead, progressive  
Ice was used in hotels, taverns, hospitals, and by some forward-looking city dealers in fresh meat, fresh fish, and butter.

13. *functional*  
ext. designed for efficiency rather than decorativeness  
practical, useful, effective  
Only New York possesses an easy-access functional connection to the vast Midwestern hinterland.

14. *burdensome*  
ext. difficult to carry, support, or tolerate  
cumbersome, troublesome, bothersome
At the same time, war taxes had to be reduced to less burdensome levels.

15. inadequate
*adj.* not sufficient or adequate
deficient, insufficient, incomplete

In the 1950s and 1960s, the baby boom hit an antiquated and inadequate school system.

16. intensive
*adj.* requiring considerable amounts of effort within a relatively short period
concentrated, focused

Even in this current era of large-scale, intensive research and development, the interrelationships between companies and universities are frequently misunderstood.

17. tout
*v.* to try to persuade people that something is important by praising it
push, promote, talk up

The Freudians touted the impact of the personal subconsciousness on behavior, and the behaviorists emphasized external punishments and rewards.

18. congestion
*n.* an excessive or abnormal accumulation
overcrowding, jam

The confusion and congestion of individual citizens looking for their letters was itself enough to discourage use of the mail.

19. secession *cf.* secede
*n.* the act of an area or group becoming independent from the country or larger group that it belongs to
The war led to the South’s **secession** from the Union.

**20. position**

*n.* a place where someone or something is

**stance, posture, job**

*Mary Goddard is considered to be the first woman to hold a federal position.*

**21. prevalent**

*adj.* common at a particular time, in a particular place, or among a particular group

**prevailing, common, widespread**

*The movie represents the idealism **prevalent** in America in the early twentieth century.*

**22. supervision**  cf. *supervise*

*n.* the management by overseeing the performance or operation of a person or group

**superintendence, oversight**

*The Human Genome Project, surprisingly, is under the supervision of the Department of Energy.*

**23. symbolize**

*v.* to be a symbol of something; to stand for something

**denote, exemplify, typify**

*An image on a national flag can symbolize political ideals that would otherwise take many words to explain.*

**24. revise**

*v.* to change something because of new information or ideas
Lawmakers simply revised the vetoed bill and passed it again, daring the president to veto it despite its popular support.

25. curb
v. to control or limit something in order to prevent it from having a harmful effect
check, restrain, control

The government hopes to curb tax fraud, so it is simplifying the process of filing taxes to make it less confusing.

26. authorize
v. to give someone the power or right to do something
empower, entitle, license

The National Labor Relations Board is authorized to investigate allegations of unfair labor practices on the part of either employers or employees.

27. essential
adj. extremely important and necessary; relating to the basic
indispensable, necessary, fundamental

Although there are several variations on the exact format that worksheets can take, they are all similar in their essential aspects.

28. encounter
v. to meet someone or something, especially unexpectedly
come upon, run into

The memory of a past encounter with a snake would make the impression of the snake much stronger.
29. illegible
adj. difficult or impossible to read
unreadable, indecipherable

*Illegible* handwriting does not indicate a weakness of character as even a quick glance at the penmanship of George Washington reveals.

30. expertise
*n.* special skill or knowledge in a particular subject
know-how, knowledge

A new energy policy should be developed and guided by people with apolitical science and technology expertise.
1. **optical**

*adj.* relating to sight or to what one sees; connected with the relationship between light and sight

*ocular, visual, optic*

*The new X-ray microscopes considerably improve on the resolution provided by optical microscopes.***

2. **panel**

*n.* a rectangular board forming a section

*board, pane*

*The instrument panel of a light airplane has at least a dozen instruments the pilot must watch.***

3. **perseverance**

*n.* a continued effort to achieve something despite setbacks

*persistence, patience, endurance*

*The researcher’s discovery was based on over thirty years of perseverance and sweat.***

4. **self-consistent**

*adj.* not self-contradictory

*self-evident, self-explaining*

*Although the phlogiston theory was self-consistent, it was awkward because it required that imaginative, even mysterious, properties be ascribed to phlogiston.***

5. **scarce**

*adj.* less plentiful than what is normal, necessary, or desirable

*scant, rare, lacking*
The scarce fossils of the Proterozoic, mostly single-celled bacteria, provide little evidence for glaciation.

6. assure
v. to state positively and confidently; to guarantee
ensure, assert

Nesting material should be added in sufficient amounts to avoid both extreme temperature situations and to assure that the eggs have a soft, secure place to rest.

7. concede
v. to acknowledge as true, just, or proper
admit, accept, acknowledge

Darwin himself conceded that the missing fossil record could be used as an argument against the validity of his theory.

8. principal
adj. first in rank or importance
chief, primary, important

Darwin was an amazing man and was the principal founder of evolutionary biology.

9. puncture
v. to make a small hole in something
perforate, pierce, stab

The external surfaces of plants often carry spiky hairs known as trichomes, which either prevent feeling by insects or may even puncture and kill insect larvae.
10. reproductive
adj. producing new life or offspring

generative, procreative

These fish have not had a chance to mature long enough to become reproductive.

11. repertoire
n. the list of things that a performer is ready to perform
repertory, stockpile, collection

Plovers have an effective repertoire of tricks for distracting potential nest predators from their exposed and defenseless eggs.

12. deft
adj. skillful and quick
dexterous, handy

As a rule, large-billed crossbills are better at seeking seeds from large cones while small-billed crossbills are more deft at removing the seeds from small, thin-scaled cones.

13. squirt
v. to shoot a liquid or something else out in a narrow jet
spout, gush, jet

When the sea cucumber is attacked, it squirts all its internal organs into the water.

14. gear
v. to adjust to a particular situation in order to bring about satisfactory results
adjust, fit, tailor

A consequence of right-hand dominance is that most common consumer products are geared to right-handers only.
15. free
v. to allow someone to move without restriction
release, emancipate, liberate

The increasing water pressure under the glacier might lift it off its bed, overcoming the friction between ice and rock, thus freeing the glacier.

16. hazy
adj. not clear or exact
foggy, faint, vague

When it comes to predicting an earthquake, it is a very hazy area.

17. nutrient
n. a chemical or food that provides what is needed for life and growth
nourishment

Since the dam was built, the sediments, rich with nutrients, are fewer, and the fish are also fewer.

18. residue
n. what remains of something or is left over
remainder, remains, rest

The water can be drawn off and evaporated, leaving a residue of clay, which can be weighed.

19. sag
v. to bend, sink, or hang down, especially in the middle
droop, dip, drop

Each piece of clay can stand only a certain amount of heat without losing its shape through sagging or
20. **segment**
   
   *n.* a part of something that is different from the whole

   **section, portion, fragment**

   *The cable ship will move on to repeat the process and lay another *segment* of cable.*

21. **segregate**
   
   *v.* to set apart or to isolate

   **divide, separate, discriminate**

   *The one riddle was that in the Western United States, two kinds of ejecta – quartz and melted rock – are not intermingled but are *segregated*; the quartz is layered just above the melted rock.*

22. **convoluted**
   
   *adj.* coiled and twisted

   **curled, entwined, coiled**

   *The *convoluted* folds of the Earth’s surface and its fractured geological structure tend to absorb the seismic energy of an earthquake.*

23. **worth (of)**
   
   *adj.* equal in value to something specified; deserving of

   **valuable, qualified, meriting**

   *Floods cause billions of dollars *worth* of property damage annually.*

24. **spot**
   
   1) *v.* to search for; to mark with spots

   2) *n.* a place; a small mark or stain

   1) **detect, identify**

   2) **site, stain**
The geographical center of the North American continent is a spot near Balta, North Dakota.

25. **adjacent**

*adj.* lying beside or next to something

**adjoining, bordering, touching**

Meteorology studies the currents of free air that are not adjacent to the Earth’s surface but which are higher up in the atmosphere.

26. **retain**

*v.* to keep or continue to have something

**hold, preserve, save**

On the moon, there is no air because the moon’s gravitational field is too weak to retain an atmosphere.

27. **faint**

*adj.* difficult to see, hear, or smell

**pale, dim, faded**

Astronomers use photography and sighting telescopes to study the motions of all of the bright stars and many of the faint ones.

28. **glimpse**

*v.* to see something or someone momentarily

**spot, glance, peek**

This cometary train, glistening like a string of pearls, had been first glimpsed only a few months before its fateful impact with Jupiter.
29. **mutate**  
v. to change and develop a new form  
**modify, alter, transform**

The radioactive rays are especially dangerous to humans because they increase the risk of cancer and can negatively alter and **mutate** DNA.

30. **observation**  
n. the act of noticing or watching  
**watching, viewing, notice**

The scientist plans experiments, performs calculations, and makes **observations** to test hypotheses.
1. folly
   *n.* a foolish action, practice, or idea
   
   idiocy, stupidity, absurdity

   However, the artists’ achievements were mocked by the artistic elite of Paris as expensive and ugly follies.

2. regardless of
   *ph.* in spite of; without regard for
   
   despite, notwithstanding, heedless of

   Potters found it convenient to locate their workshops near their source of clay, regardless of their relation to the center of the settlements.

3. renovation
   *n.* the act of improving by renewing and restoring
   
   remodeling, reengineering, upgrade

   The renovation of the building will take longer than what had been previously estimated.

4. spacious
   *adj.* having ample room or space; extending over a large area
   
   wide, capacious, extensive

   By the opening decades of the twentieth century, spacious buildings finally transcended the light confinement of row house building lots.

5. centripetal
acting or moving toward the center of a circle; tending to unify

adj. centralized, unifying

Social life is thus centripetal; that is, it is focused around the community center, the village.

6. compete
v. to strive to outdo another for acknowledgment, a prize, supremacy, or profit
contend, vie

As the populations expanded, they may have competed with other game species for the same environmental niche.

7. periodic
adj. happening at intervals, especially regular ones
periodical, regular, cyclical

This periodic extinction might be due to the intersection of the Earth’s orbit with a cloud of comets.

8. perch
v. to sit or rest on an elevated place or position
roost, rest, sit

In Alaska, where eagles perched on fish traps and scared away the salmon, hunters killed more than 100,000 eagles between 1917 and 1952.

9. conversion
n. an act or process of changing something into a different state or form
alteration, metamorphosis, transformation

At least 5,000 years ago, in Europe, deforestation and the conversion of wildlands to pasture began.
10. **jolting**
   *adj.* moving suddenly and roughly; giving someone a sudden shock
   **jerking, shaking, shocking**

   *The high rate of species extinctions in these environments is *jolting*.*

11. **magnitude**
   *n.* the great size or importance of something
   **size, enormousness, greatness**

   *However, nothing has ever equaled the *magnitude* and speed with which the human species is altering the physical and chemical world and demolishing the environment.*

12. **perish**
   *v.* to die; to be destroyed or ruined
   **lose life, expire**

   *When a species can no longer adapt to a changed environment, it may *perish*.*

13. **poultry**
   *n.* birds such as chickens and ducks that are kept on farms in order to produce eggs and meat
   **domestic fowl**

   *Ducks are less susceptible to infection than other types of *poultry*.*

14. **choke**
   *v.* to prevent or be prevented from breathing by an obstruction in the throat
   **suffocate, smother, stifle**

   *Oil and the pollutants it causes are *choking* the life from the planet.*
15. combustion
   n. the act or process of burning
   burning, flaming

Oil was in the depths of the planet for millions of years before man found a use for it in the internal combustion engine.

16. tempting cf. temptation
   adj. attractive; inviting
   seductive, enticing, alluring

Many people find chocolate tempting, which accounts for the reason why the chocolate industry is so profitable.

17. when it comes to
   ph. regarding; with regard to
   in relation to, as for, as to

When it comes to our vision, all of the components of the eye are important.

18. impulse
   n. a sudden push forward; a force producing sudden movement forward
   boots, urge, impetus, stimulus

The cardiac muscle will continue to pump blood without any impulses from the brain or ANS.

19. in retrospect
   ph. in looking back on past events
   in hindsight

In retrospect, vitamin and mineral therapies were much less effective when applied to health-crisis conditions.
20. infection

*n.* the act or process of causing or getting a disease

*contagion, communication*

His work was stimulated by the wartime need to find a cure for the fungus *infections* that afflicted many military personnel.

21. challenging

*adj.* offering a challenge; testing one’s ability, endurance, or something else

*defying, provoking, demanding*

Still, the brain is a great unknown in myriad ways and remains one of the most *challenging* and fascinating areas in the medical field.

22. bolster

*v.* to make something stronger or to hold something up

*support, reinforce, buttress*

*Ki is fundamental in giving human strength and energy as well as *bolstering* the immune system.*

23. conjunction

*n.* a combination of different things that have come together

*combination, union*

*Sometimes, herbal medicines are used in *conjunction* with acupuncture to magnify its effects.*

24. cerebral

*adj.* relating to or affecting the brain; involving complicated ideas

*intellectual*
In most cases of epilepsy, cerebral electrical activity, also known as brain waves, demonstrates a characteristically abnormal rhythm.

25. **vessel**
   
n. a container, especially for liquids; a ship or large boat
   
**container, holder, ship**

An Erlenmeyer flask is a glass **vessel** used in chemistry labs.

26. **neutralize**
   
v. to cancel out the effect of something; to make a substance chemically neutral
   
**negate, counteract, offset**

The insects can **neutralize** or alter the poisonous substances that certain plants produce.

27. **nucleus**
   
n. the positively charged tiny central part of an atom; the central part of something
   
**heart, core**

Most of the mass of an atom is made up of the **nucleus**, which contains the neutrons and protons.

28. **alchemist** cf. **alchemy**
   
n. a scientist who tried to discover how to change ordinary metal into gold, especially in the Middle Ages

Through the centuries, the dream of medieval **alchemists** was to discover how to turn lead and other base metals into gold.

29. **renowned**
   
adj. known and admired by a lot of people, especially for a special skill, achievement, or quality
   
**famous, celebrated, noted**
His discovery of the electric light is what he is most renowned for.

30. **defective**

*adj.* having a defect or defects

**imperfect, flawed, faulty**

A *defective* battery can cause an electrical device to malfunction.
1. settle
1) v. to make or become quiet, calm, or still
2) v. to come to an agreement about something
1) relax, tranquilize 2) decide, fix

The place functioned as a sanctuary where the elders met to plan festivals, perform ritual dances, settle pueblo affairs, and impart tribal lore to the younger generation.

2. oral
adj. spoken; not written
verbal, vocal, voiced

Most African cultures were based on what is called an oral tradition.

3. peak
n. a sharply pointed mountain top; the highest point
summit, pinnacle, apex

After the peak year of 1957, the birth rate in Canada began to decline.

4. initially
adv. at the beginning
originally, incipiently

The characteristic of jazz is a rhythmic drive that was initially called “hot” and later “swing.”

5. scope
n. the size or range of a subject or topic
How long the recession is expected to last will affect the **scope** of measures the bank might adopt.

6. **tenuous**
   *adj.* slight; with little strength or substance
   thin, vague, meager

Oil prices were little changed last year although analysts said the stability was **tenuous**.

7. **staunch**
   *adj.* dependably loyal
   trusty, steadfast, reliable

The **staunch** members of the ladies’ group would not give up their fight for the right to vote.

8. **oversee**
   *v.* to watch to see that work is being properly done
   supervise, superintend, direct

Before the deceased oversee and conduct the lives of the people they have left behind, an elaborate funeral celebration must take place.

9. **mercy**
   *n.* a willingness to forgive, not to punish
   pity, compassion, kindness

If the opponents killed their emissary or refused to surrender, the Mongols showed no **mercy**.

10. **mandate**
    *v.* to give authority or power to someone or something; to command to act in a certain way
In 1938, the Fair Labor Standards Act mandated a weekly maximum of 40 hours to begin in 1940.

11. **marginal**
   
   *adj.* on or in the margin of a page; small in importance or amount

   *borderline, insignificant*

   His tribe was one of the poorer ones, living north of the great Gobi Desert in areas with marginal resources.

12. **meticulously**
   
   *adv.* very carefully

   *painstakingly, particularly, scrupulously*

   In the past, things were not recorded as meticulously as they are today.

13. **nomad**
   
   *n.* a member of a people without permanent homes and who travel from place to place

   *migrant, rover*

   The Aborigines are probably the descendants of these early nomads, who made their way through southern Asia both by boats across narrow channels and across land bridges.

14. **ornament**
   
   *n.* something that decorates or adds grace or beauty to a person or thing

   *accessory, adornment, decoration*

   Articles for nearly every household activity and ornament could be bought in Rockingham ware.

15. **engulf**
v. to swallow something completely

**devour, swallow**

Over the next ten years, a fierce civil war **engulfed** the Mongol tribes until Genghis was master of them all.

16. **eternal**

*adj.* lasting forever and without a beginning or an end

**timeless, everlasting, immortal**

The essence of the individual is **eternal** and will continue to exist in this world until a proper funeral ceremony has been performed to send the person off to the next stage of existence.

17. **primary**

*adj.* first or most important

**chief, fundamental, principal**

In addition to revealing the **primary** concerns of a society, the content of that society’s art may also reflect the culture’s social stratification.

18. **prize**

1) *n.* something won in a competition or lottery
2) *v.* to value or regard highly
1) **award, reward** 2) **treasure, cherish**

The Art Nouveau style was widely copied in their time and is highly **prized** today.

19. **foremost**

*adj.* first in place, order, or rank; leading

**primary, supreme, prominent**

Theodore Dreiser, the **foremost** naturalist writer, grimly portrayed a dark world in which human
beings were tossed about by forces beyond their understanding or control.

20. **stereotype**

* n. a fixed idea or image that many people have of a particular type of person or thing

**type-cast**

*The minstrel show featured white actors dressed in blackface and playing up racial *stereotypes.*

21. **identical**

* adj. exactly similar in every respect; exactly alike
* same, twin, indistinguishable

*This type of writing describes an imaginary world that is *identical* to ours up to a certain point in history.*

22. **representative**

* 1) adj. being an example of what other members of the same group are like
* 2) n. a person or thing that represents another or others
* 1) typical, symbolic 2) deputy, delegate

*Most of these leaders were involved in public life as reformers, activists working for women’s right to vote, or authors, and were not *representative* at all of the great mass of ordinary women.*

23. **district**

* n. a division of territory, as of a country, state, or county
* area, quarter, locality

*The *district* in New York City known as Harlem was the capital of the Harlem Renaissance.*

24. **fabricate**

* v. to invent or make up a story or evidence; to make something
imagine, fake, manufacture

Dreiser thought that writers should tell the truth about human affairs, not fabricate romance.

25. fade
v. to lose or cause to lose strength, freshness, or color; to become dim
wane, dull, cloud

These writers, who can genuinely be said to have created a genre, the “railroad novel,” are now mostly forgotten, their names having faded from memory.

26. feuding
adj. quarreling between families, individuals, or clans; having persistent enmity
conflicting, quarreling, hostile

West Side Story transformed the Montagues and Capulets of Shakespeare’s play into feuding street gangs, the Jets and the Sharks.

27. originate
v. to bring or come into being
begin, derive, stem

The term etiquette originated in France in the seventeenth century, but it is also a common term today in English.

28. regarding
prep. being talked or written about
with regard to, as to, as for

The importance of punctuality can be seen through the myriad proverbs and expressions almost every culture has regarding time.
29. distinct
1) adj. noticeably different or separate
2) adj. easily seen, heard, or recognized
1) different, separate  2) clear, explicit

Every Pomo basket maker knew how to produce from fifteen to twenty distinct patterns that could be combined in a number of different ways.

30. lament
v. to feel or express regret or sadness
sorrow, grieve, mourn

Deeply philosophical historians lamented the role that the new frenzy for business was playing in eroding traditional values.
1. commodity
   *n.* something that is bought and sold, especially a manufactured product or raw material
   
   *product, merchandise*

   Corn, cotton, sugar, and many other goods are bought and sold in *commodity* markets.

2. convenient
   *adj.* fitting in with one’s plans; not causing trouble or difficulty
   
   *suitable, handy, nearby*

   Automatic teller machines provide a *convenient* means of banking 24 hours a day.

3. monetary
   *adj.* belonging or relating to, or consisting of, money
   
   *financial, fiscal, pecuniary*

   Canada adopted the dollar as its *monetary* unit in 1878.

4. notion
   *n.* an impression, conception, or understanding
   
   *concept, idea, thought*

   The Depression years of the 1930s brought with them the *notion* of job sharing to spread available work around.

5. furnace
   *n.* an enclosed chamber in which heat is produced for smelting metal
The furnace in the factory was turned up as high as possible.

6. **prolific**

*adj.* producing plentiful fruit or offspring; producing many works

**productive, fertile, fruitful**

As early as 1782, the **prolific** Delaware inventor Oliver Evans had built a highly automated, labor-saving flour mill driven by water power.

7. **routine**

*n.* a regular or unvarying series of actions or a way of doing things

**custom, habit, procedure**

The mass production of paper bags cost so little that a bag soon became a **routine** part of almost every purchase.

8. **monotonous**

*adj.* lacking in variety; tediously unchanging

**repetitious, tedious**

While factory work was less creative and more **monotonous**, it was also more efficient and allowed mass production.

9. **posture**

*n.* the general way of holding the body; a way of behaving on a particular occasion

**position, pose, stance**

The government established tariff barriers, provided loans and grants to build a transcontinental railroad, and assumed a studied **posture** of nonintervention in private enterprise.

10. **accommodating**
adj. helpful; willing to do what another person wants
coopera tive, hospitable, kind

The government was nothing if not accommodating.

11. content
v. to satisfy or to make oneself or another satisfied
please, gladden, gratify

Most other cities contented themselves with zoning plans for regulating future growth.

12. distinguish
v. to make out or identify something
discriminate, separate, differentiate

In 1870, the census officially distinguished the nation’s “urban” from its “rural” population for the first time.

13. justify
v. to prove or show something to be right, just, or reasonable
legitimate, vindicate, rationalize

The slave owners justified slavery by saying it was the natural order of events and that the Africans’ place in the world was as slaves.

14. oblige
v. to bind someone morally or legally; to compel
require, force, coerce

Slave owners were obliged to care for the nonproductive Africans, which included the young, aged, and infirm.
15. **outbreak**

*n.* a sudden, usually violent, beginning or occurrence

**outburst, rash**

*In the fifteen years prior to the outbreak of the War of Independence in 1775, more than 200,000 immigrants arrived on North American shores.*

16. **overwhelming**

*adj.* physically or mentally crushing; intensely powerful

**overpowering, formidable, uncontrollable**

*The new play was so successful that the demand for tickets was overwhelming.*

17. **pack**

*v.* to stow goods compactly in cases; to put goods into a container

**cram, fill, package**

*Major cities were packed with people basically living on top of each other.*

18. **sprawling**

*adj.* spreading or extending in an irregular, straggling, or untidy way

**spreading, extending, stretching**

*Los Angeles was a decentralized metropolis, sprawling across the desert landscape over an area of 400 square miles.*

19. **counter**

*v.* to oppose, act against, or hit back

**contradict, retaliate, frustrate**

*One method to counter desertification that is being used is the planting of leguminous plants.*
20. senator

*n.* a member of a senate

**politician**

*A person must be at least thirty years old in order to serve as a U.S. senator.*

21. temporary

**adj.** lasting, acting, or used for a limited period of time only

**momentary, transient, provisional**

*The city of Memphis was an important Confederate military center during the Civil War and served as the temporary state capital in 1862.*

22. property

1) **n.** something which is owned
2) **n.** a quality, power, or effect that belongs naturally to something

1) **possessions, belongings** 2) **characteristic, trait**

*Fewer than 25 percent of the 245,000 who took up land under the act obtained final title to the property.*

23. campaign

1) **n.** an organized series of actions intended to gain support for or build up opposition to a particular practice or group
2) **v.** to organize or take part in a campaign

1) **operation, drive** 2) **run, electioneer**

**Campaigning on television means that, increasingly, our political world contains memorable pictures rather than memorable words.**
24. urge
v. to try very hard to persuade; to suggest strongly
press, push, request

*The League of Women Voters* urges all citizens to vote.

25. deploy
v. to spread out and position troops to get ready for battle

*The general was reluctant to deploy his troops into the enemy-controlled town.*

26. backlash
*n.* a sudden violent reaction to an action or situation
backfire, counteraction, repercussion

*Then came the backlash in the 1920s. America was tricked into the war by the British and French, said many.*

27. evidence
1) *n.* information or something else that gives grounds for belief
2) *v.* to be evidence of something; to prove
1) proof, ground 2) demonstrate, reveal

*Emotional health is evidenced in the voice by free and melodic sounds of the happy, by the constricted and harsh sounds of the angry, and by the dull and lethargic qualities of the depressed.*

28. concentrate
*v.* to give full attention and energy to something or someone
focus, center, intensify

*Adults sometimes mistake children’s curiosity about everything as a lack of ability to concentrate.*
29. means

*n.* the instrument or method used to achieve some object

*process, manner, way*

Increasingly, schools were viewed as the most important *means* of integrating immigrants into American society.

30. compulsory

*adj.* required by the rules or law

*obligatory, mandatory*

The use of seatbelts is *compulsory* in many states; failure to wear them may result in fines.
1. **outline**
   1) *n.* a line that marks the outer edge of an object
   2) *v.* to give a brief description of something
   1) **contour, silhouette** 2) **delineate, draft**

   Charles Townes and Arthur Schawlow wrote a long paper **outlining** the conditions needed to amplify stimulated emission of visible light waves.

2. **interchangeable**
   *adj.* capable of being put or used in place of something else
   **equivalent, identical**

   Potash and soda are not **interchangeable** for all purposes, but for glass- or soap-making, either will do.

3. **mutual**
   *adj.* having or based on the same relationship of one towards the other
   **reciprocal, interactive**

   It seems that all allosaurs worked together for **mutual** protection and nourishment.

4. **latent**
   *adj.* present or existing in an undeveloped or hidden form
   **dormant, potential, undeveloped**

   The primary source of energy for tropical cyclones is the **latent** heat released when water vapor condenses.
5. **ooze**
n. v. to flow or leak out gently or slowly
*leak, exude, secrete*

*Precipitation such as rain and water can enter directly into the pool of nuclear waste, mix with it, and ooze out into the environment.*

6. **herbivore**
n. a plant-eating animal

*Any plant species often has many ways to defend itself from herbivores.*

7. **hostile**
adj. expressing enmity, aggression, or angry opposition
*antagonistic, inhospitable, unfriendly*

*The deep-ocean bottom is a hostile environment to humans.*

8. **crawl**
n. v. to move along the ground slowly; to move along on one’s hands and knees
*creep, worm, squirm*

*A three-foot-long octopus can crawl through a hole less than one inch in diameter.*

9. **intervention**
n. an act of intervening, especially in the affairs of other people or countries
*interference, interruption*

*Ordinary light is emitted spontaneously when atoms or molecules get rid of excess energy by themselves without any outside intervention.*
10. nocturnal
   adj. happening or active at night

11. abyss
    n. a deep and bottomless hole

12. palatable
    adj. having a pleasant taste

13. fine-tuning
    n. slight adjustments to something to obtain optimum performance

14. grumble
    v. to complain in a bad-tempered way

15. sole
    adj. being the only one
Pheromones are the predominant medium of communication among insects but are rarely the sole method.

16. **span**

v. to form an arch or bridge over; to go from one end to the other end of

bridge, cross, stretch over

The plover’s most famous stratagem is the broken-wing display, which is actually a continuum of injury-mimicking behavior spanning the range from slight disability to near-complete helplessness.

17. **invade**

v. to attack or overrun; to enter a country by force with an army

encroach, overrun, raid

Molten material wells out of the Earth’s interior to invade the surface layers or to flow onto the surface itself.

18. **interval**

n. a period of time between two events

interim, intermission, pause

However, at intervals of 10 to 100 years, these glaciers move forward up to 100 times faster than usual.

19. **intricate**

adj. full of complicated, interrelating, or tangled details or parts

complex, tangled, involved

The geyser is linked by an intricate plumbing network to some extremely hot rocks.
20. intrusion  
*n.* an act or process of intruding, especially on someone else’s property  
**encroachment, interruption**

*Man’s intrusion into the deltas sometimes upsets the balance of nature.*

21. margin  
*n.* the blank space around a page of writing or print  
**boundary, edge, rim**

*New oceanic crust is formed along one or more margins of each plate by material issuing from deeper layers of the Earth’s crust.*

22. modify  
*v.* to change the form or quality of something, usually only slightly  
**revise, amend, adjust**

*Rain dissolves, transports, and precipitates many chemical compounds and is constantly modifying the face of the Earth.*

23. deduction  
*n.* a process of reasoning using general rules or principles to form a judgment  
**conclusion, reasoning**

*Strictly speaking, the “true” natural science is in the set of facts, not the deductions.*

24. damp  
*adj.* slightly wet  
**moist, humid, dank**

*Florida has a humid climate. Summers there are particularly hot and damp.*
25. **recede**
* v. to go or move back or backward
  
  *retreat, withdraw, go back*

  *At the end of the Ice Age, the glaciers began to **recede**.*

26. **rudimentary**
* adj. of or relating to basic facts or principles
  
  *basic, fundamental, elementary*

  *In the early nineteenth century, the knowledge of the physics of heat, which was essential to the science of refrigeration, was **rudimentary**.*

27. **altitude**
* n. the height, especially above sea level, of a mountain, aircraft, or something else
  
  *elevation, height, level*

  *At higher **altitudes**, the particle cools, and the moisture it carries is precipitated as rain or snow.*

28. **revolve**
* v. to move or turn, or to make something move or turn, in a circle
  
  *turn, rotate, spin*

  *All the planets in the solar system except Mercury and Venus have natural satellites, which are objects that around **revolve** planets.*

29. **devour**
* v. to eat up something greedily
  
  *gulp, swallow, gorge*
Black holes are areas of massive gravitational energy that devour all things they pass, including stars.

30. **dominate**

* v. to have command or influence over someone or something
* control, govern, reign

The light from the nearby Virgo Galaxy set out when reptiles still dominated the animal world.
1. presumably
   *adv. supposedly; probably
   supposedly, likely, seemingly

   The rural pottery establishment on the island of Thasos produced many types of pottery and roof tiles, too, presumably to meet local demand.

2. picturesque
   *adj. charming to look at, especially if it is rather quaint
   scenic, pictorial, attractive

   With its charming shops and restaurants, Old Town is the most picturesque section of Albuquerque.

3. predecessor
   *n. the person who formerly held a job or position now held by someone else; something formerly used
   forerunner, antecedent, forebear

   Eighteenth-century houses showed great interior improvements over their predecessors.

4. recommendation
   *n. an official suggestion about the best thing to do
   advice, counsel, guidance

   The plan impressed the university officials, and, in time, many of its recommendations were implemented.

5. convivial
   *adj. pleasantly merry and friendly
American hotels made other national conventions not only possible but also pleasant and **convivial**.

6. **pursue**
   v. to follow someone or something in order to overtake
   **chase, follow, trace**

   *Few predators fail to** pursue **such obviously vulnerable prey.*

7. **raid**
   v. to attack on a person, place, or something else to do damage
   **attack, invade**

   *Even the few protected parts in Haiti are** raided **for their prized trees.*

8. **wary**
   adj. looking out for danger; careful
   **circumspect, vigilant, cautious**

   *You must be** wary **when buying a used car; be sure the engine is in good condition.*

9. **exposure**  cf. expose
   n. the act of exposing or the state of being exposed
   **disclosure, uncovering, baring**

   *Human populations near the equator all have dark skin over many generations because of** exposure **to the fierce rays of the sun.*

10. **generate**
    v. to produce or create something
It is hoped that the errors generated by imperfect and incomplete taxonomy will be minimized.

11. **pungent**

*adj.* sharp and strong; cleverly caustic or biting

*bitter, biting, tart*

Certain spices give foods a **pungent** taste.

12. **render**

*v.* to cause to be or become

*make, become*

Rapid ecological change may **render** an environment hostile to a species.

13. **inhabit**

*v.* to live in or occupy a place

*dwell in, reside in, live in*

The fact that half of the known species are thought to **inhabit** the world’s rainforests does not seem surprising.

14. **genesis**

*n.* an origin or generation

*origin, beginning, generation*

Life’s transition from the sea to the land was perhaps as much of an evolutionary challenge as was the **genesis** of life.

15. **crunch**
n. the moment of decision or crisis
crisis, critical point, decision time

Hybrid cars have been around in one form or another since the early seventies during the oil crunch in the U.S.

16. impair
v. to damage or weaken something, especially in terms of its quality or strength
damage, injure, harm

Alcohol can impair one’s ability to drive.

17. potent
adj. having a very powerful effect or influence
powerful, mighty, effective

Morphine, a form of synthetic heroin, is a potent painkiller.

18. curative
adj. able to or tending to cure
remedial, restorative, therapeutic

Some people believe that the crystals of certain minerals have curative powers.

19. density  cf. dense
n. the degree to which an area is filled with people or things
solidness, thickness

Our bone and muscle structures as well as their density are predetermined by our genes.

20. elongate
v. to lengthen or stretch something out

**extend, prolong, lengthen**

The actual eyeball is oblong and **elongated** length-wise from the front to the rear.

21. **enthusiastic**

*adj.* showing lively interest; extremely keen

**passionate, eager, fervent**

*Some experts were enthusiastic about the medicine while others said it was only effective for a few months.*

22. **circulatory**  cf. **circulate**

*adj.* relating to the circulation of the blood or something else

*Herbs have a more direct influence than acupuncture on the body’s physical systems, such as the **circulatory** system.*

23. **concomitant (with)**

*adj.* accompanying because of or as a result of something else

**concurrent, coincidental, accompanying**

*Concomitant with the increasing use of donor eggs, the proportion of women with multiple births over age 40 has increased as well.*

24. **crux**

*n.* the most important part of a problem, question, argument, or something else

**core, gist, pivot**

*The herbalists attempt to treat the source of the health problem rather than simply get rid of the symptoms, which is something that many argue is the flawed **crux** of Western medicinal techniques.*
25. resistant
adj. able to resist something; not affected by something
defiant, unsubmission, impervious

Ceramics can be harder, lighter, and more resistant to heat than metals.

26. impurity
n. something that renders something else impure
contaminant, pollutant

Emeralds get their beautiful green color from titanium and chromium impurities in the stone.

27. modulate
v. to vary the strength or nature of something; to change or alter
tune, adjust, regulate

The organism’s ability to modulate a chemical signal is limited when compared with communication by visual or acoustic means.

28. alloy
n. a material consisting of a mixture of two or more metals
composite, compound, mixture

Despite their light weight, aluminum alloys can be very strong.

29. tolerate
v. to bear or endure someone or something
bear, endure, stand

Another strategy of large desert animals is to tolerate the loss of body water to a point that would be fatal for non-adapted animals.
A sponge feeds itself by drawing water through tiny pores on its surface, filtering out food particles, and then **expelling** the water through larger vents.
1. *vanish*

*v.* to become invisible or unnoticeable

disappear, dissipate, evaporate

As the frontier *vanished*, great factories and vast agricultural holdings marked the land.

2. *longing*  cf. *long for*

*n.* an intense desire or yearning

craving, desire, wish

Tulip bulbs were sent from Europe to the United States to satisfy the nostalgic *longings* of homesick English and Dutch settlers.

3. *meteoric*  cf. *meteor*

*adj.* belonging or relating to meteors; very rapid

deviating, swift

A number of circumstances contributed to the *meteoric* rise of Los Angeles.

4. *novel*

*adj.* not like anything known before

new, unusual, creative

The engine that became standard on western steamboats was a different and *novel* design.

5. *obsolete*

*adj.* no longer in use or in practice

out of date, outmoded, old-fashioned
Until refrigerators made it obsolete, the ice industry supplied city dwellers with blocks of ice.

6. coerce
v. to force or compel someone to do something by using threats
force, fore, oblige, make

As for Italians, the Russians only met the reluctant few whom Hitler managed to coerce for his Russian campaign.

7. conquer
v. to gain possession or dominion over a territory by force
defeat, subdue, vanquish

With his horse-riding, arrow-shooting hordes, he conquered a territory greater than any other leader either before or after him.

8. consume
v. to use up time, money, goods or something else
exhaust, deplete, expend

It is clear that humans began to carry their food to central places, called home bases, where it was shared and consumed.

9. dispute
n. an argument or a disagreement between two people or groups
debate, discussion, controversy

The village chief dealt with land disputes and religious affairs.

10. plateau
**n.** an extensive area of relatively flat high land that is usually bounded by steep sides

*mesa, tableland, highland*

*Mesa Verde is located in the high **plateau** lands near Four Corners, where Colorado, Utah, New Mexico, and Arizona come together.*

11. **pore**

*n.* one of the similar small holes in the surface of a plant or a rock

*opening, orifice, hole*

*Fossils are frequently very dense because the pores and other spaces in the bones have become filled with minerals taken up from the surrounding sediments.*

12. **sacred**

*adj.* religious in nature or use

*holy, divine, sainted*

*The sacred objects of the family were under the control of the oldest female.*

13. **staple**

1) *n.* an economically important product
2) *n.* a major constituent of a particular community’s diet
1) *merchandise, provision* 2) *necessity, basic*

*Though others were sometimes used, these four materials were the staples of their finest basketry.*

14. **story**

*n.* any of the levels on which a building is built

*floor, level, tier*

*The largest Pueblo buildings had five stories and more than 800 rooms.*
15. exalted
adj. raised or elevated, as in rank or character; noble or elevated
lofty, noble, honored

The artisans’ products, primarily silver plates and bowls, reflected their exalted status and testified to their customers’ prominence.

16. foe
n. a person who feels enmity or hatred toward another
enemy, adversary, opponent

Humans organize their societies in such a way to obtain a measure of security from a harsh and hazardous environment made up of human foes, famine, and plagues.

17. realization
1) n. an awareness of something
2) n. making something real
1) recognition, comprehension 2) actualization

Satire jars us out of complacency into a pleasantly shocked realization that many of the values we unquestioningly accept are false.

18. secure
v. to make free from danger or risk
protect, guard, defend

In addition to securing an exhibition space in the Library Society Building in lower Manhattan, the society founded a small school for the instruction of watercolor painting.

19. ensconce
v. to hide safely
The key was *ensconced* under the welcome mat.

20. **marked**

*adj.* obvious or noticeable

**conspicuous, pronounced, evident**

Citizens of prosperous, essentially middle-class, republics have always shown a *marked* taste for portraiture.

21. **medium**

*n.* something by or through which an effect is produced

**means, method, mode**

Implicit in it is an aesthetic principle as well that the *medium* has certain qualities of beauty and expressiveness.

22. **monopolize**

*v.* to have a monopoly or exclusive control of trade in a commodity or service

**control, dominate**

The older painters practiced in a mode that was often self-taught and *monopolized* by the subject matter of the landscape.

23. **optimistic**

*adj.* disposed to take a favorable view of events or conditions

**positive, hopeful, idealistic**

The ending of the poem is *optimistic*, making it very different from the dark, pessimistic outcome of Smith’s.
24. tantrum

*n.* an outburst of childish or petulant bad temper
*blowup, rage, fury*

*Spoiled children are apt to have tantrums when they do not get their way.*

25. flush

*v.* to blush or to make someone blush or go red; to animate
*redden, excite, encourage*

*The art movement known as Regionalism began in the United States when the Depression occurred, but it really flushed before the 1930s.*

26. improvisation

*n.* the creative activity of immediate musical composition
*extemporization, ad-libbing*

*Opera seria eschewed imagination and improvisation in favor of familiar storylines, most often Greek.*

27. strict

*adj.* demanding obedience or the close observance of rules
*austere, rigid, rigorous*

*Many parents place strict limits on the kinds of shows their children may see and the number of hours allowed for television viewing.*

28. utterance

*n.* the act of speaking
*statement, expression*

*The sounds that an infant notices might be the words that often occur at the ends of utterances.*
Most important was that the artists had all maintained, with a certain fidelity, a manner of technique and composition consistent with those of America’s first popular landscape artist.

Especially because of writers who place so much importance on sound itself, the meanings of the words become all but irrelevant.
1. **durable**
adj. lasting a long time without breaking
lasting, persistent, enduring

*Economists define* durable *goods as ones intended to last more than four months.*

2. **indifferent**
adj. a lack of interest, feeling, or reaction toward something or someone
unconcerned, detached, uncaring

*Stockholders may be too* indifferent *to vote in corporate elections, so they let management vote for them by proxy.*

3. **expendable**  cf. expend
adj. not valuable enough to be worth preserving
dispensable, nonessential, unnecessary

*Some workers lost their jobs when new technologies made their labor cheap or expendable.*

4. **insurance**
n. an agreement in which one party promises to pay another money in the event of a loss
assurance

*A number of insurance companies have their headquarters in Hartford, Connecticut.*

5. **kinfolk**
n. one’s relations; the members of one’s family
kin, kindred, family
In towns and cities, the nuclear family was more dependent on its immediate neighbors than on kinfolk.

6. lucrative
adj. affording financial gain

7. appraise
v. to judge the worth, quality, or condition of someone or something; to find out the value

8. out-of-date
adj. out of style or fashion; outmoded

9. barn
n. a building in which grain or hay is stored or a building for housing animals

10. collective
adj. belonging to or involving all the members of a group

Even today, North Atlantic commercial flights remain the most lucrative market in the world.

Jewelers are sometimes asked to appraise jewelry for insurance purposes.

Subsequent reforms have made the prior notions seem quite out of date.

Other artisans worked in their homes or barns, relying on the help of family members or apprentices.
Expressive leadership is that which emphasizes the collective well-being of a social group’s members.

11. compact
1) adj. firm and dense in form or texture
2) adj. neatly concise
1) dense, condensed 2) succinct, brief

City dwellers also developed other pleasures, which only compact communities made possible.

12. affluent
adj. having more than enough money
rich, wealthy, well-off

Scholarships allow students from less affluent families to attend college.

13. ponderous
adj. slow and awkward because of great size and weight
heavy, massive

These ponderous machines reaped the grain, threshed it, and bagged it, all in one simultaneous operation.

14. proponent
n. a supporter or advocate of something; someone who argues in favor of a cause
advocate, backer

Proponents of these reforms argued that public ownership would ensure widespread access to these utilities.

15. deformity
n. an imperfection of the body, especially one that can be seen
abnormality

The offspring of animals may sometimes be born with an injury or physical deformity.

16. reap
v. to cut and gather grain or something else
harvest, acquire, gain

The urban poor reaped few benefits from household improvements.

17. brunt
n. the main force or shock of a blow or attack
onslaught, violence, impact, shock

The Americans bore the brunt of the Pacific fighting during the war.

18. censorship
n. the practice of censoring something
suppression

Rarely could they see such a movie in the country due to censorship by the government.

19. pledge
v. to promise money or something else to someone; to offer something as a guarantee
promise, oath, vow

The Republican Party pledged the enactment of a law granting free homesteads to settlers who would help in the opening of the West.

20. cozy
Before 1754, Britain and the North American colonies had a cozy relationship, but, after that, their relationship became strained.

21. outspoken
adj. saying exactly what one thinks; frank
candid, direct, forthright

Roger Williams was the founder of the colony of Rhode Island and an outspoken advocate of religious and political freedom.

22. penalize cf. penalty
v. to impose a penalty on someone for wrongdoing
punish, handicap, sentence

Recycling is mandatory in most major cities today, and violators may be penalized up to five hundred dollars.

23. poll
1) n. a political election; a survey of public opinion
2) v. to conduct an opinion poll among people
1) vote, survey 2) sample, interview

A 1990 survey found that over 80 percent of those polled claimed to believe in God.

24. promote
v. to help something to develop or increase
advance, boost, advertise
There is an act that presidents have relied on in the past to **promote** both the interests of the United States as well as their own.

25. **prospect**
   
   *n.* an expectation of something due or likely to happen  
   *expectation, outlook, anticipation*

People in the United States in the nineteenth century were haunted by the **prospect** that unprecedented change in the nation’s economy would bring social chaos.

26. **spatial**
   
   *adj.* belonging, referring to, or relating to space

Los Angeles was a **product** of the **auto age**; its distinctive **spatial** organization depended on widespread private ownership of automobiles.

27. **observe**
   
   1) *v.* to notice or become conscious of something  
   2) *v.* to obey, follow, or keep a law, custom, or religious rite  
   1) *examine, monitor* 2) *obey, follow*

For a long time, we’ve been able to **observe** the effects of fear on the human body but not in the brain.

28. **circumstantial**
   
   *adj.* based on something that appears to be true but is not proven  
   *presumptive, deduced, inferred*

**Circumstantial** evidence is that which is not drawn from the direct observation of a fact.

29. **backbone**
   
   *n.* the spinal column; a main support or major sustaining factor
By 1771, when entrepreneur Mark Bird established the blast furnace in Pennsylvania, iron making had become the **backbone** of American industry.

30. **plague**

*n.* any of several epidemic diseases with a high mortality rate

**scourge, epidemic, pestilence**

*The plague* then spread by sea trade on ships into the Mediterranean and to the island Sicily, where it got its first foothold on Europe.
1. **ample**
   *adj.* more than enough
   **abundant, plentiful, sufficient**

   *There is ample evidence that water once existed on the surface of Mars and might return in the future if the planet warms.*

2. **penetrate**
   *v.* to find a way into something; to enter something, especially with difficulty
   **pierce, puncture, go through**

   *Cleaner water allows sunlight to penetrate to greater depths.*

3. **preliminary**
   *adj.* occurring at the beginning; preparatory
   **prior, initial, introductory**

   *It takes about four years for a new aircraft model to move from the preliminary design stage to the full-production stage.*

4. **gravitation**
   *n.* the force of attraction between any two masses
   **gravity, attraction**

   *Gravitation keeps the moon in orbit around Earth.*

5. **horizontal**
   *adj.* at right angles to vertical
level, flat, plane

More air is involved in those horizontal movements than in vertical movements.

6. induce
v. to persuade, influence, or cause someone to do something; to cause
lead, urge, influence

Scientists hope to attach different chemicals to the tip of the scanning microscope to induce chemical reactions at precise spots.

7. injection
n. an act of forcing liquid into something
instillation, inoculation, shot

Fuel injection engines employ injectors instead of a carburetor to spray fuel into the cylinders.

8. trait
n. a particular quality in someone’s character
characteristic, feature, property

Traits such as hair color and eye color are inherited genetically from one’s parents.

9. courtship
n. the courting or wooing of an intended spouse
courting, wooing

Bill clapping is a common part of courtship by storks, and bill snapping is a common threat by owls.

10. jeopardy
n. the danger of harm, loss, or destruction
When groups of chimpanzees become fragmented and isolated from each other, their own genetic makeup is placed in **jeopardy**.

11. **lair**
   
n. a wild animal’s den

**hole, burrow, cave**

_Dinosaurs had nests or lairs where they laid the eggs._

12. **from afar**
   
_ph. far off; a long way off_

**from a distance**

_To lure their pollinators from afar, orchids use appropriately intriguing shapes, colors, and scents._

13. **depart from**
   
_ph. to start doing something different or not planned_

**diverge, deviate, differ from**

_Desert mammals depart from the normal mammalian practice of maintaining a constant body temperature._

14. **mature**
   
_adj. fully grown or developed_

**adult, ripened, aged**

_Its features are striking, as a mature whooping crane is all white and stands five feet tall with a wingspan of about eight feet._
15. heretofore

adv. before or up to this time; formerly

hitherto, theretofore, thus far

Researchers are confident that the discoveries will provide invaluable clues about this heretofore mysterious process.

16. pounce

v. to leap or swoop on a victim or prey, especially when trying to capture it

jump, spring, leap

When a tiger spots its prey, it crouches and then pounces.

17. immunity

n. the state of being immune to a disease; the state of being protected from unpleasant things

exemption, invulnerability, nonliability

The human immune system reacts defensively, and immunity is stimulated without illness.

18. rapidity

n. a rapid state or quality; quickness

swiftness, speediness, promptness

The last figure shows the importance of the ocean as the principal reservoir of the hydrosphere and also the rapidity of water transport on the continents.

19. rigid

adj. completely stiff and inflexible; unwilling to change

firm, hard, stubborn

The hard, rigid plates that form the outermost portion of the Earth are about 100 kilometers thick.
20. tap
v. to start using a source, supply, or something else
use, utilize

Geothermal energy is a potentially inexhaustible energy source that has been tapped by humans for centuries but, until recent years, only on a small scale.

21. grind
v. to crush something into small particles or powder between two hard surfaces
pound, pulverize, mill

Because of their hardness, industrial diamonds can be used for cutting, grinding, and drilling.

22. groundwater
n. water which occurs in the rocks beneath the surface of the Earth
underground water, subsurface water

Many communities are dependent on groundwater obtained from wells for their water supply.

23. inaccessible
adj. difficult or impossible to approach, reach, or obtain
unapproachable, unobtainable, unreachable

Until about a century ago, the deep-ocean floor was completely inaccessible.

24. infringe (on)
v. to break or to violate a law or oath
intrude, impinge, trespass

While many anxious parents may welcome this, others are already beginning to wonder if the GPS revolution is just another way for the government to infringe on its citizens’ privacy.
25. **delta**  
*n.* a more-or-less triangular area of sediments deposited at the mouth of a river

*The Amazon River has the largest *delta* in the world, and the Yellow River in China has the greatest sediment flow, which is very important in delta formation.*

26. **sturdy**  
*adj.* thick and strong-looking  
**strong, solid, well-built**

*Because they must be able to break a path through icebound waters, icebreakers have to be very *sturdy* boats.*

27. **instantaneously**  
*adv.* in an instant; at a particular instant  
**immediately, directly, promptly**

*Communications satellites can transmit data around the world cheaply and *instantaneously.**

28. **phenomenon**  
*n.* something that happens or exists in society, science, or nature  
**event, happening, occurrence**

*The spectacular aurora light displays that appear in Earth’s atmosphere around the north and south magnetic poles were once mysterious *phenomena.**

29. **compile**  
*v.* to collect and organize information  
**put together, collect, gather**
Modern computers can quickly compile and analyze a large volume of weather information.

30. vast
adj. extremely great in size, extent, or amount
great, enormous, huge

It is now known that the vast majority of the moon’s craters were formed by the impact of solid bodies with the lunar surface.
1. **combine**

   v. to join together

   **connect, link, unite**

   *Because of the urban heat island effect, several characteristics of urban areas* combine *to elevate artificially the ambient temperature.*

2. **projection**

   1) *n.* the process of being projected
   2) *n.* something that protrudes from a surface

   1) **presentation** 2) **bulge, protrusion**

   *The hatch dome is a smooth design with no* projections *to easily attach to.*

3. **meager**

   *adj.* lacking in quality or quantity

   **scant, sparse, thin**

   *Seattle’s park development was very limited, and its funding was meager.*

4. **mural**

   *n.* a painting that is painted directly onto a wall

   **wall painting, fresco**

   *Murals tell narrative stories through visual images.*

5. **deck**

   *n.* a platform extending from one side of a ship to the other and forming a floor or covering
The observation deck at the Empire State Building has been featured prominently in several movies.

6. **unique**
   *adj.* being the only one of its kind; unusually good and special
   *single, only, unequaled*

   What unusual or **unique** biological trait led to the remarkable diversification and unchallenged success of ants for over 50 million years?

7. **ultimately**
   *adv.* at last; in the end
   *finally, eventually, in the long run*

   Other species may become better adapted to an environment, resulting in competition, and, **ultimately**, the death of a species.

8. **rare**
   *adj.* not done, found, or occurring very often
   *scarce, unusual, uncommon*

   On the **rare** occasion when a fine piece of sculpture was desired, Americans turned to foreign sculptors.

9. **ecosystem**
   *n.* a community of living things and their relationships to their surroundings

   Humans have become experts at destroying the world and the **ecosystems** in which they live.

10. **measure**
n. a system of measurement; the process of ascertaining the quantity of something
gauge, scale, estimation

Absent an objective **measure**, therefore, the range of estimates is wide.

11. **equivalent**
*adj.* equal in value, power, or meaning
**comparable, corresponding, equal**

**Studies have shown that it costs the equivalent of about a dollar a gallon to recharge a plug-in hybrid’s energy tank.**

12. **eschew**
*v.* to avoid, keep away from, or abstain from something
**evade, escape, avoid**

**We should accept the responsibility of saving the environment by eschewing non-hybrid cars for more environmentally friendly plug-in hybrids.**

13. **eternity**
*n.* time regarded as having no end
**perpetuity, infinity, timelessness**

**The animal may soon be another one lost for eternity to human greed.**

14. **custodian**
*n.* someone who cares for something, like a public building or ancient monument
**caretaker, guardian, watchman**

**Therefore, both the ocean and the human body have a kind of custodian that maintains their bacteria levels.**
15. **debilitate**

*v.* to make someone weak or weaker  
*weaken, enervate*

*If bacteria levels increase and get out of control, they can take hold of a system, overrun it, and become **debilitating.***

16. **flora**

*n.* the wild plants of a particular region, country, or time period  
*vegetation, greenery, herbage*

*These plans have been designed to protect the endangered **flora** and fauna as well.***

17. **aggravate**

*v.* to make something worse; to exasperate or irritate  
*exacerbate, worsen, bother*

*The treatment only **aggravated** the condition.***

18. **circulate**

*v.* to move or to cause to move around freely, especially in a fixed route  
*circle, flow, move around*

*The heart must beat more forcefully if it is to **circulate** the same amount of blood.***

19. **blockage**

*n.* the state of being blocked or prevented; something that is stopping movement in a narrow place  
*obstruction, impasse*

*These pathways might suffer **blockage** or be disrupted for various reasons.
20. clot
n. a thick, almost solid, mass formed when blood or milk dries
coagulation, lump

This can cause serious problems. A clot, or a lump of blood, can form.

21. compatible
adj. able to associate or coexist agreeably
agreeable, consistent, harmonious

In a transfusion, a patient must receive a blood type that is compatible with his blood.

22. besiege
v. to surround a town or stronghold with an army
lay siege to, blockade, surround

Almost daily, the public is besieged by claims for “no-aging” diets, new vitamins, and other wonder foods.

23. intoxication
n. a condition in which certain centers in the brain are affected by toxic substances
poisoning

A sudden increase in caffeine consumption can easily produce caffeine intoxication.

24. chronic
adj. long-lasting, usually of gradual onset, and often difficult to treat
long-lasting, lingering, continuing

More often than not, chronic pain is untreated or undertreated, but it does not have to be this way.
25. **filter**
   v. to pass something through a filter, often to remove impurities
   sieve, purify, refine

   *Commercial honey is heated and **filtered** in order to stabilize and clarify it.*

26. **detonate**
   v. to explode or to make something explode
   explode, burst, blow up

   *Dynamite is ordinarily **detonated** with a device called a blasting cap.*

27. **duplicate**
   v. to make or be an exact copy or copies of something; to repeat something
   copy, reproduce, repeat

   *In science, the results of an experiment are not generally accepted until they have been **duplicated** in other laboratories.*

28. **amenable**
   adj. ready to accept someone else’s idea, proposal, advice, or guidance
   agreeable, receptive, obedient

   *Glass is **amenable** to a greater number of heat-forming techniques than most other materials.*

29. **pupa**
   n. the inactive stage during which a larva is transformed into a sexually mature adult while enclosed in a protective case
   chrysalis

   *Eight to eleven days later, an adult moth emerges from the **pupa**.*
30. brilliant
adj. very bright and sparkling; showing outstanding intelligence or talent
shining, radiant, intelligent

Robert Goddard was a brilliant pioneer in the field of rocketry.
1. **fragile**
   
   *adj.* easily broken, shattered, or damaged
   
   *brittle, feeble, frail*

   The fibers were short and **fragile**, but he predicted that spun glass fibers as thin as spider silk would be flexible and could be woven into fabric.

2. **grueling**
   
   *adj.* very difficult and tiring
   
   *exhausting, laborious, arduous*

   The 26-mile-long Boston Marathon is a **grueling** foot race.

3. **fixture** *cf. fix*
   
   *n.* a permanently fixed piece of furniture or equipment
   
   *appliance, fitting, equipment*

   The icebox became a **fixture** in most homes and remained so until the mechanized refrigerator replaced it in the 1920s and 1930s.

4. **hollow**
   
   *adj.* containing an empty space within or below; not solid
   
   *empty, vacant, void*

   As they continued this oral tradition, they were able to fill up what was **hollow** and what was missing inside of them.

5. intent
n. something which is aimed at or intended; a purpose
intention, goal, object

Despite the intent of the law, speculators often managed to obtain large tracts of land.

6. subterranean
adj. beneath the surface of the Earth
underground

Separate subterranean rooms in three pueblos were set aside for religious ceremonies.

7. be derived from
ph. to have arisen from something; to be traced back to something
stem from, be originated from

The name of the ware was probably derived from its resemblance to English earthenware made in South Yorkshire.

8. besides
prep. in addition to; apart from something or someone
as well as, additionally, aside from

Besides overhunting, at least three other reasons for the extinction have been suggested.

9. blend
v. to mix different sorts or varieties into one
mix, mingle, combine

The funeral tradition of the Toraja people blends ancient animist beliefs with the Western influences of Christianity.
10. **casual**
   1) *adj.* intended for informal situations
   2) *adj.* happening by chance
   1) *informal* 2) *accidental, fortuitous*

   Spoken language is generally more **casual** than written language.

11. **butt**
    *n.* a person who is often the target of jokes, ridicule, or criticism
    **object, target, victim**

   These so-called couch potatoes are often the **butt** of jokes or regarded as being unintelligent.

12. **supernatural**
    *adj.* relating to phenomena that cannot be explained by the laws of nature
    **paranormal, unnatural, mysterious**

   The belief in the **supernatural** powers of a stone or tree may cause a sculptor to be sensitive to that material.

13. **supposedly**
    *adv.* seemingly; probably
    **presumably, allegedly, reputedly**

   English goods were **supposedly** being smuggled into that city at a time when the Dutch controlled trading in the area.

14. **supreme**
    *adj.* highest in rank, power, or importance; most outstanding
    **uppermost, prime, excellent**

   The anthropologist suggested that all human beings have the capacity to understand that there is a
15. forge
v. to shape metal by heating and hammering; to develop something new
mold, invent, form

Genghis was able to forge his people into the greatest class of warriors the world has ever known.

16. hearth
n. the floor of a fireplace or the area surrounding it
fireplace, fireside

Most early pottery was fired over open hearths.

17. shield
1) n. a piece of armor consisting of a broad plate
2) v. to protect from danger or harm
1) buckler 2) guard, defend

Locks and escutcheon plates - the latter to shield the wood from the metal key - would often be imported.

18. sketch
v. to do a rough drawing or drawings of something
outline, delineate

Sometimes a talented man or woman who began by sketching family members gained a local reputation.

19. outnumber
v. to exceed in number; to be more than
The greatest musical expansions and experimentations have involved percussion instruments, which outnumber strings and winds.

20. **overtake**

v. to go past a moving vehicle or person in the same direction

**overhaul, catch, reach**

Art Nouveau was eventually **overtaken** by a new school of thought known as Functionalism, which had been practiced since the turn of the century.

21. **pessimistic**

adj. emphasizing or expecting the worst

**negative, cynical, hopeless**

Most people mix a **pessimistic** and an optimistic outlook to some degree.

22. **prevail**

v. to be victorious; to be the common, usual, or generally accepted thing

**predominate, preponderate, spread**

After the 1870s, a number of important authors began to reject the romanticism that had **prevailed** immediately following the Civil War.

23. **prominent**

adj. important or well-known; easily seen

**eminent, celebrated, conspicuous**

Forty-two **prominent** artists living in New York City founded the American Society of Painters in Water Colors.
Since its **inception** in Italy around the year 1600, opera has experienced a number of shifts and trends.

**Hers is a world of violence, insanity, fractured love, and hopeless loneliness.**

One crucial outcome of these musical **acculturations** was the development by blacks of the so-called **blues scale**, with its “blue notes.”

The Hopi people of Arizona stress the institutions of family and religion in a harmonious existence which makes the **self-sacrificing** individual the ideal.

Before barbed wire came into general use, fencing was often made from serrated wire, which could **snap** in cold weather due to contractions.
29. **feed**

v. to supply food to animals or something else; to supply a machine with fuel

*nurture, nourish, supply*

*The wire to make the barbs is *fed* into the machine from the sides and cut to length by knives that cut diagonally through the wire to produce a sharp point.*

30. **hull**

*n. the frame or body of a ship or airship*

*framework, structure, body*

*The clipper has a knifelike bow to slice easily through the water and a narrow *hull* so that the ship can move smoothly.*
1. **prudent**

   *adj.* sensible and careful, especially by trying to avoid unnecessary risks

   **wary, cautious, discreet**

   A **prudent** investor never takes unnecessary financial risks.

2. **raw**

   *adj.* not cooked; not processed, purified, or refined

   **unprepared, untreated, crude**

   **Raw** materials have less economic value than processed ones.

3. **cling (to)**

   *v.* to hold firmly or tightly; to stick

   **adhere, attach, stick**

   In the nineteenth century, the former colonies lagged behind Britain in industrial development because their supply of wood led them to **cling** to charcoal iron.

4. **domesticate**

   *v.* to train an animal for life in the company of people

   **tame**

   Huge numbers of people began to rely on the grain they grew and the animals they **domesticated**.

5. **eager**

   *adj.* feeling great desire or enthusiasm; keen to do something

   **avid, enthusiastic, longing**
This new technology enabled them to build factories in the largest cities, taking advantage of urban concentrations of inexpensive labor and eager customers.

6. **reconstruction**
   *n.* constructing or forming again

   **restoration**

   The desperate plight of the South eclipsed the fact that **reconstruction** had to be undertaken in the North as well.

7. **entrepreneur**
   *n.* someone who engages in business enterprises

   **industrialist**

   North American **entrepreneurs** increased productivity by reorganizing work and building factories.

8. **bust**
   *n.* a failure; a sudden decline in the economic conditions of a country

   **failure, recession**

   The more-or-less rhythmic succession of economic booms and **busts** is referred to as the business cycle.

9. **buttress**
   *v.* to support a system, idea, argument, or something else

   **brace, sustain, reinforce**

   The population flow from farms to cities increased, and the labor force it provided was **buttressed** by millions of newly arrived immigrants.
10. **clamp**  
**v.** to put or hold something in a position so that it cannot move  
*clasp, clip, fasten*

*In 1789, he invented a machine in which the cutter was clamped into a moveable slide that could be advanced precisely by a hand crank.*

11. **avail**  
**v.** to provide with something useful or desirable  
*benefit, pay, profit*

*With much of the labor force inducted into the army and with grain prices on the rise, northern farmers rushed to avail themselves of the new labor-saving equipment.*

12. **rational**  
**adj.** related to or based on reason or logic  
*logical, reasonable, sensible*

*Your rational mind tells you it’s just a stick, but your innate mind tells you it could be a snake.*

13. **resolve**  
1) **v.** to determine to do something  
2) **v.** to find a solution for something  
1) *decide, determine*  
2) *solve, answer*

*They were quick to lighten serious moments with humor and tried to resolve issues that threatened to divide the group.*

14. **afterthought**  
1) **n.** a thought after a main plan has been formed  
2) **n.** something added later  
1) *reconsideration*  
2) *addition*
In most of the earliest books for children, illustrations were an afterthought.

15. **stimulate**

v. to cause physical activity or increased activity; to initiate or to get going

*rousing, spurring, provoking*

The agricultural revolution **stimulated** many in the countryside to seek new lives in the cities.

16. **superb**

*adj. extremely good*

*perfect, marvelous, excellent*

The city had a **superb** natural harbor as well as excellent rail connections.

17. **tenement**

*n. a large building divided into several self-contained flats or apartments*

*apartment, flat*

Urban slum wards often had no sewers, garbage collection, or gas or electric lines, and **tenements** lacked both running water and central heating.

18. **determinant**

*n. a thing that decides whether or how something happens*

Economics was probably the most important **determinant** for the baby boom.

19. **dilute**

v. to make a liquid weaker; to make a quality or belief weaker or less effective

*water down, weaken, lessen*
As a result, it changes far more slowly than regular DNA, which is diluted by fifty percent each generation.

20. uniformly
   adv. without variation or diversity
   consistently, evenly, equally

   To be fair, laws must be uniformly applied to all people.

21. inspection
   n. a close look at or over someone or something in order to judge its condition
   scrutiny, examination, audit

   The perishable commodities of trade generally came under state inspection.

22. jury  cf. juror
   n. a body of people sworn to give an honest verdict

   Many Americans still feel that the jury system is at the core of their democracy.

23. legislative
   adj. concerned with making laws
   lawmaking

   Members of congress have to spend most of their time in Washington taking care of their legislative duties.

24. mock
   1) v. to make someone or something the object of unkind laughter
   2) adj. not real, but intended to be similar to a real situation or substance

   1) deride, ridicule  2) fake, sham
He was asked to be a juror in the mock trial which will take place at the law school next week.

25. **conspiracy**

   *n.* a secret plan made by two or more people to do something that is harmful or illegal

   *collusion, plot, intrigue*

   The details of John Kennedy’s death continue to elude the most relentless of conspiracy theorists.

26. **demographic**

   *adj.* pertaining to demography; relating to the dynamic balance of a population

   Today, the elderly comprise the fastest growing demographic group in many developed countries.

27. **characteristic**

   *n.* a quality or feature of something or someone that is typical of that thing or person and is easy to recognize

   *mark, trait, property*

   These factors ensured that Chicago would become a great city regardless of the disadvantageous characteristics of the available site.

28. **assign**

   *v.* to give a task or something else to someone

   *allocate, allot, apportion*

   In the research, each consideration is assigned a numerical value to reflect its relative importance.

29. **sponsor**

   *v.* to act as a sponsor for someone or something

   *patronize, support, back*
Classes for adult immigrants were **sponsored** by public schools, corporations, unions, churches, settlement houses, and other agencies.

30. **dismay**

v. to break down the courage of completely, as by sudden danger or trouble

**discourage, dishearten**

Some visitors were **dismayed** by the endless urban sprawl and dismissed Los Angeles as a mere collection of suburbs in search of a city.
1. **candidate**

*n.* someone who is competing with others for a parliamentary seat or some other position

*runner, nominee, applicant*

*Mars would be a more successful candidate for exploration and settlement.*

2. **cushion**

*v.* to make the effect of a fall or hit less painful

*soften, mitigate, absorb*

*The big surprise, though, is the role of air resistance in cushioning the shock of collisions.*

3. **bewildering**

*adj.* thoroughly confusing, disorientating, or puzzling

*baffling, perplexing, confusing*

*Telescopic images of the planet permitted the cataloging of a bewildering array of land forms.*

4. **quantify**

*v.* to determine the quantity of something

*measure*

*Scientists have tried to quantify the proportion of the sun’s energy.*

5. **refrigerate**

*v.* to freeze something or to make it cold

*chill, cool, ice*
Florists often refrigerate cut flowers to protect their fresh appearance.

6. condense
v. to decrease the volume, size, or density of a substance
compress, compact, concentrate

The water stored as vapor in the atmosphere will condense to a liquid again, and the energy will be released to the atmosphere.

7. constituent
n. a forming part of a whole
component, element, ingredient

Helium nuclei have also been found to be constituents of cosmic rays that fall on the Earth.

8. diffuse
v. to spread or to send out in all directions
disperse, distribute, scatter

The nitrogen diffuses from the tissues into the blood and from the blood into the lungs.

9. friction
n. the rubbing of one thing against another; disagreement or unfriendliness between people
abrasion, scrape, conflict

The air of the upper atmosphere is dense enough to ignite meteors by friction.

10. wander
v. to walk, move, or travel about with no particular destination
ramble, roam, range
Some of the mice wandered around the box and did not appear to be bothered by being so exposed.

11. ferocious  
adj. violently unfriendly or aggressive  
fierce, savage, cruel

Barracudas are ferocious predators and are sometimes called the “tigers” of tropical waters.

12. humidity  
n. the amount of water vapor in the atmosphere  
dampness, moisture

When parrots incubate their eggs in the wild, the temperature and humidity of their nests are controlled naturally.

13. instill  
v. to impress ideas, feelings, or something else slowly or gradually  
implant, imbue, infuse

Through this process, the conservationists instill in the whooping cranes a natural sense of migration.

14. intact  
adj. not broken or damaged; untouched  
undamaged, unimpaired, unblemished

The finding of a perfectly intact massive dinosaur fossil may seem exciting, but to paleontologists, it is just evidence that one beast died for some reason.

15. intake  
n. a thing or quantity taken in or accepted; the act of taking in  
consumption, ingestion
An important consideration of fat intake is the ratio of saturated fats to unsaturated fats.

16. expenditure

n. a payment made in the course of achieving a result
outlay, expense, cost

Each of the functions of the body, even thinking, requires the expenditure of energy.

17. incubator

n. a transparent container in which a prematurely born baby can be nurtured

The eggs were placed in incubators, hatched, and continually monitored and eventually raised by specialists.

18. ingest

v. to take food or liquid into the body
consume, eat

The nectar of flowers is ingested by worker bees and converted to honey in a special sac in their digestive systems.

19. insulation

n. the state of being alone or kept apart from others
isolation, secludedness, separateness

Fat acts as insulation against the cold and as cushioning for the internal organs.

20. jostle

v. to push something in an annoying way
hustle, jolt, push
Eventually, large rocks may be \textit{jostled} around enough to be broken into sand-sized grains.

21. \textbf{submerge}  
\textit{v.} to plunge, sink, or cause to plunge or sink under the surface of some liquid  
\textit{immerse, drench, dive}

As the Bering land bridge had been \textit{submerged} before the Eskimos came from Asia, they must have arrived by boat.

22. \textbf{decompose}  
\textit{v.} to rot, usually as a result of the activity of fungi and bacteria  
\textit{decay, break down, disintegrate}

\textit{It is the rock that gradually decomposes into clay.}

23. \textbf{deposit}  
\textit{v.} to put something down; to leave a layer of a substance on the surface of something  
\textit{place, store, bank}

\textit{When a river overflows, the coarser sand sediment is sometimes deposited on the river banks, which forms natural levees.}

24. \textbf{fine}  
\textit{adj.} consisting of tiny particles  
\textit{dusty, floury, powdery}

\textit{Table salt is finer than rock salt.}

25. \textbf{erode}  
\textit{v.} to wear away, destroy, or be gradually destroyed
Rock is eroded by wind and water, and many of the eroded parts end up in the water system at some point and, eventually, in the great rivers of the world.

26. give way to
ph. to give priority to; to collapse under pressure
concede, succumb, yield

Beyond a depth of around 2,900 kilometers, a great change takes place, and the mantle gives way to the core.

27. labyrinth
n. a highly complex network of interconnected passages
maze

Located inside Rainer’s two ice-filled summit craters, these caves form a labyrinth of tunnels and vaulted chambers about one and one-half miles in total length.

28. glowing
adj. giving out a steady heat or light without flames
burning, luminous, incandescent

Viewed from outer space, auroras can be seen as dimly glowing belts wrapped around each of the Earth’s magnetic poles.

29. inflow
n. a flowing or coming in
influx, inrush

For a snowfall to continue once it starts, there must be a constant inflow of moisture to supply the nuclei.
30. evaporate

v. to change or cause something to change from a liquid into a vapor
vaporize, boil off, dehydrate

Rain and melting snow quickly evaporate in the dry desert climate.
1. **outlook**
   
n. a view from a particular place
   
   viewpoint, perspective, prospect

   *The town planning commission said that its financial outlook for the next fiscal year was optimistic; it expects an increase in its tax revenues.*

2. **inviting**
   
   adj. attractive or tempting
   
   alluring, captivating, enticing

   *In spite of Hunt’s inviting façade, the living space was awkwardly arranged.*

3. **loop**
   
n. a rounded or oval-shaped single coil in a piece of thread, string, or rope
   
   circle, hoop, ring

   *The Loop, which is the commercial heart of Chicago, is enclosed within a rectangular loop of elevated train tracks.*

4. **magnificent**
   
   adj. splendidly impressive in size, extent, or appearance
   
   great, grand, impressive

   *Even though many are taller, the building’s history and the magnificent view from the top have helped its popularity endure throughout the decades.*

5. **draw on**

   *The boundary of the northern United States was drawn on the map to illustrate the effect of climate on vegetation.*
A public library is a resource the entire community can **draw on**.

6. **toxic**  
*adj.* relating to the characteristics of poison or toxin  
**poisonous, venomous**

In her book *Silent Spring*, Rachel Carson wrote about insecticides and their **toxic** effects on animal life.

7. **cosmic**  
*adj.* relating to the universe  
**universal**

The extinction of the dinosaurs was caused by some physical event, either climatic or **cosmic**.

8. **drastically**  
*adv.* with force or violence; severely or extensively  
**severely, violently, forcefully**

The weather can change **drastically** in the desert over the course of a mere day.

9. **bleak**  
*adj.* cold and cheerless  
**dreary, dismal, desolate**

With its massive population and **bleak** future, many Haitians are sneaking across the border and hoping for a better one in the Dominican Republic.
10. comparably
adv. in a similar way or to a similar degree
similarly, equivalently, likely

Crows are less well known than many comparably common species.

11. conserve
v. to keep safe from damage, deterioration, loss, or undesirable change
keep, preserve, save

In winter especially, it is important for birds to conserve their precious food reserves.

12. decline
n. a lessening of strength, health, or something else
weakening, decrease, downturn

There are two major factors which contributed to the decline of the bird in the early twentieth century.

13. deficient
adj. not good enough; not having all that is needed
lacking, wanting, insufficient

If one of them is missing or deficient, an entire system can be placed in jeopardy.

14. mitigate
v. to make pain, anger, or something else less severe
moderate, relieve, lessen

One strategy for mitigating the impact of the heat island effect is to use construction materials in houses, pavements, and highways that reflect, not absorb, the sunlight.
15. discrepancy
   n. a failure of sets of information or something else to correspond to something
   disparity, disagreement, inconsistency

   The two nations have followed different paths of forest management, which has resulted in the current discrepancy.

16. exhale
   v. to breathe out
   blow, puff

   When the pressure inside the lungs increases, the air is **exhaled**.

17. abuse
   n. the wrong use of one’s power; the excessive use of harmful substances
   perversion, misuse, ill-use

   The therapy is excellent for treating individuals with eating disorders and drug **abuse**.

18. come about
   ph. to happen
   occur, take place, come up

   The train wreck **came about** as a result of the engineer’s negligence.

19. methodically
   adv. in a systematic way; systematically
   neatly, tidily, regularly

   Hazen **methodically** screened and cultured scores of soil samples, which she then sent to her partner.
20. **ironic**

*adj.* containing, characterized by, or expressing irony

*Sarcastic, satirical, sardonic*

*It is somewhat ironic that without cholesterol, a person’s body would not be able to function correctly.*

21. **holistic**

*adj.* considering a person or thing as a whole rather than as separate parts

*Many individuals are taking a more holistic approach to their bodies and health rather than simply looking for a quick cure.*

22. **imbibe**

*v.* to drink, especially alcoholic drinks

*Drink, take*

*Traditionally, herbal teas are imbibed to boost the immune system.*

23. **tissue**

*n.* a group of cells with a similar structure and particular function

*Free radicals of oxygen, common byproducts of the metabolic processes in the body, are capable of causing tissue damage.*

24. **alternative**

*adj.* secondary or different, especially in terms of being less favorable as a choice

*Substitute, surrogate*

*Natural gas really is an excellent alternative fuel to gasoline.*

25. **cease**
v. to bring or to come to an end

**end, halt, stop**

By the time the universe was a few minutes old, helium production had effectively **ceased**.

26. **concise**

*adj.* brief but comprehensive

**compact, succinct, abridged**

The system of chemical symbols, first devised around 1800, gives a **concise** and instantly recognizable description of an element or compound.

27. **tarnish**

*v.* to make or become dull and discolored

**sully, stain, spoil**

In the metal industry, hydrogen is used to prevent metals from **tarnishing** while undergoing heat treatments.

28. **homology**

*n.* the same relation; the quality of being similar or corresponding in position, value structure, or function

The concepts of analogy and **homology** are probably easier to exemplify than to define.

29. **pectoral**

*adj.* referring to or relating to the breast or chest

**thoracic**

The **pectoral** fins of a fish, the wings of a bird, and the forelimbs of a mammal are all homologous structures.
30. **affliction**  
*n. distress or suffering*  
**hardship, pain, disease**

*Future studies of the brain may make it possible to create microchips that can be implanted, thus curing stutterers of their **afflictions** for good.*
1. **enthusiasm**
   n. lively or passionate interest or eagerness
   *fervor, passion, ardor*

   *There seemed to be nothing that men are so afraid of as religious enthusiasm.*

2. **eradicate**
   v. to get rid of something completely
   *eliminate, obliterate, remove*

   *Governmental attempts to eradicate the black market were less than successful.*

3. **trend**
   n. a general direction or tendency
   *inclination, leaning, direction*

   *A generation in pop-culture terms measures about two years, and a trend can come and go in weeks.*

4. **progressive**
   adj. favoring or advocating progress, change, improvement, or reform
   *advancing, liberal, radical*

   *The progressive movement is an umbrella term referring to some reform efforts that emerged in the early 1900s.*

5. **crisscross**
   v. to cross one another in different directions
   *weave, traverse*
Wagons and coaches continued to **crisscross** the West wherever the rails had not yet been laid.

6. **designate**
   
v. to name, choose, or specify someone or something for a particular purpose
   
**nominate, appoint, select**

The Antiquities Act gives the president the unobstructed power to **designate** land as national monuments.

7. **attain**
   
v. to complete successfully
   
**accomplish, achieve, reach**

The natives **attained** one of the most complex social organizations of any nonagricultural people in the world.

8. **attribute**
   
n. a trait or characteristic of something
   
**trait, quality, feature**

The physical **attributes** of the Hole in the Rock in Arizona allow its use as a natural calendar.

9. **surmise**
   
v. to conclude something from the information available
   
**suppose, assume, guess**

One might **surmise** that these dwellings were built for protection, but the Anasazi had no known enemies.

10. **synonymous (with)**
They thought of the Industrial Revolution as **synonymous** with mechanization, with human labor replaced by machines.

11. **henceforth**

*adv.* from now on; from this point forward

**hereafter, henceforward**

In 1926, he announced that, **henceforth**, his factories would close for the entire day on Saturday.

12. **immutable**

*adj.* unable to be changed

**changeless, invariable, constant**

Adjustments in various places show that the standard is not **immutable**.

13. **imperative**

*adj.* absolutely essential; urgent

**necessary, requisite, pressing**

With the gradual evolution of society, more complex counting became **imperative**.

14. **incise**

*v.* to cut into, especially precisely and with a specialized sharp tool

**cut, gash, slash**

Some pots were adorned with **incised** or stamped decorations.
to bring something unpleasant upon oneself; to become liable for debts
draw, arouse, provoke

The reason is due to the cost since the family will incur heavy expenses because of the funeral.

16. iridescent
adj. having many bright rainbow-like colors which seem to change constantly

A favored device of the style was to imitate the iridescent surface seen on ancient glass.

17. fate
n. the apparent power that determines the course of events over which humans have no control
fortune, destiny, doom

Some writers wrote of a world in which a cruel and merciless environment determined human fate.

18. proclivity
n. a natural liking or tendency, especially towards something bad
inclination, preference, tendency

The proclivity to play hot distinguished jazz musicians from other instrumentalists.

19. undergo
v. to experience something especially unpleasant or difficult
suffer, bear, endure

The surrounding area was undergoing tremendous economic and demographic growth.

20. revere
v. to feel or show great respect or reverence for someone or something
respects, admire, worship

Founded by John Ruskin and William Morris, the movement revered craft as a form of art.

21. **rotate**
   v. to turn or make something turn about an axis like a wheel
   *revolve, spin, whirl*

   Committee membership **rotates** every year so that new voices and opinions are constantly heard.

22. **myriad**
   adj. an exceedingly great number
   *countless, limitless*

   A series of mechanical improvements finally produced an instrument capable of **myriad** tonal effects.

23. **norm**
   n. a typical pattern or situation; a standard, especially for achievement in industry
   *criterion, standard, model*

   The organization of the opera never deviates from the usual **norm**.

24. **preoccupation**
   n. the state or condition of being preoccupied
   *obsession, absorption*

   An examination of the art of the Middle Ages tells us something about the medieval **preoccupation** with theological doctrine.

25. **rage**
   n. a widespread, usually temporary, fashion
In the late eighteenth century, portraiture was the rage, so Raphaele Peale found few buyers for his still lives.

26. refreshing

*adj.* producing a feeling of comfort and new strength

*invigorating, rejuvenating, exhilarating*

Satire exists because readers appreciate a refreshing stimulus, an irreverent reminder they live in a world of platitudinous thinking.

27. exuberant

*adj.* overflowing with life and cheerful excitement

*joyful, lively, vigorous*

Self-image can be indicated by a tone of voice that is confident, shy, aggressive, or exuberant.

28. delivery

*n.* the carrying of goods, letters, or something else to a person or place

*distribution, conveyance, transportation*

The free delivery service was at first confined to cities, and soon home delivery became a mark of urbanism.

29. insulting  cf. insult

*adj.* rude or offensive with lack of respect

*contemptuous, rude, offensive*

After the Civil War, Jefferson Davis, president of the Southern Confederacy, was the subject of an insulting popular Northern song.
formidable

*adj.* causing fear, doubt, or anxiety; very impressive

appalling, awesome, overwhelming

The northwest coast of the United States is uniquely characterized by the **formidable** Cascade Mountain Range.
1. **prior**
   adj. existing or arranged before something else or before the present situation
   earlier, former, previous

   Employers often require job applicants to have **prior** experience in the field.

2. **output**
   n. the quantity or amount of something produced
   production, yield

   The innovations in manufacturing boosted **output** and living standards to an unprecedented extent.

3. **capacity**
   1) n. someone’s ability to do something
   2) n. the amount of space a container or room has to hold things or people
   1) ability, faculty 2) space, volume

   The economic heart of Canada, Ontario accounts for more than 40 percent of the nation’s productive **capacity**.

4. **cohesion**
   n. the process or state of sticking together; the tendency to unite
   cohesiveness, connection, bond

   The airplanes contributed to a kind of international **cohesion**, which was beginning to emerge due to air travel across the oceans.

5. **colossal**
adj. extraordinarily great in size, extent, or degree
great, gigantic, enormous

The Lincoln Memorial features a **colossal** statue of the sixteenth president.

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6. cramped
don. uncomfortably restricted in size
tight, crowded, close

Having a lower income generally forces people to live in more **cramped** quarters than those typically occupied by wealthier people.

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7. defunct
don. no longer living, existing, active, usable, or in use
extinct, outmoded, expired

The city cannot legally sign a contract with a **defunct** corporation.

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8. dictate
vinc. to say words for someone to write down; to tell someone what to do
command, order, demand

The quality of the hinterland **dictated** the pace of growth of the cities.

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9. astounding
don. so surprising that it is almost impossible to believe
astonishing, shocking, stunning

The circulation of Ladies’ Home Journal reached an **astounding** 700,000 copies.

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10. turmoil
There were a number of major causes for the social and religious turmoil experienced in Europe during the fourteenth century.

11. valid
1) adj. based on truth or sound reasoning
2) adj. drawn up according to proper legal procedure
1) concrete, sound 2) lawful, legitimate

In some societies, both male and female lines are considered equally valid.

12. vigilance
n. the state of being watchful or observant
alertness, watchfulness, caution

From this point until the first green corn could be harvested, the crop required labor and vigilance.

13. exorbitant
adj. going beyond a normal or acceptable limit in degree or amount
excessive, outrageous, disproportionate

Reformers argued that the privately owned utility companies would charge exorbitant rates for these essential services.

14. exponential
adj. becoming faster and faster

Except for Boston, cities grew by exponential leaps through the eighteenth century.
15. filthy
adj. extremely dirty
foul, tainted, unclean

The filthy living conditions were definitely a major reason why the Black Death was so devastating to Europe.

16. foothold
n. a place to put one’s foot when climbing; a firm or secure position
footing, bridgehead, base

The five-day working week gained a firm foothold in England during the past year.

17. foreshadow
v. to give or have some indication of something in advance
augur, indicate, presage

The beginning of a major change was foreshowed in the later 1860s.

18. ghastly
adj. making someone very frightened, upset, or shocked
awful, terrible, appalling

The date of the pandemic’s ghastly, horrific assault on Europe was probably around the mid-fourteenth century.

19. go along with
ph. to comply with something, even if reluctantly
agree to, assent to, concur with

The president would go along with the decision to hire more people if the department could bring in more revenue.
20. **grant**  
*n.* something granted, especially an amount of money from a public fund for a specific purpose  
*subsidy, subvention*

Many universities receive **grants** to do research for the federal government.

21. **herald**  
*v.* to proclaim or usher in something  
*announce, proclaim, declare*

The Declaration of Independence included the names of its signers and therefore **heralded** the support of all thirteen colonies.

22. **discourse**  
*n.* an exchange of views for the purpose of exploring a subject or deciding an issue  
*discussion, colloquy*

Much of what constituted the traditional political **discourse** of earlier ages has been lost.

23. **emissary**  
*n.* a person sent on a mission, especially on behalf of a government  
*messenger, envoy, legate*

When the British sent **emissaries** demanding the surrender of the colony, the leader wanted to fight.

24. **entanglement**  
*n.* a difficult situation or relationship that is hard to escape from  
*involvement, complication*

The first president advised the nation to avoid foreign **entanglements**, and, for the first century, the
country was quite adept at doing so.

25. facilitation  cf. facilitate
   n. the act of making something easy or easier
   aid, assist, promotion

The goals of the federal government were the facilitation of western settlements and the development of native industries.

26. fatigue
   1) v. to exhaust or to become exhausted
   2) n. tiredness after work or effort
   1) tire, exhaust 2) weariness, tiredness

People make more mistakes when they are fatigued than when they are fresh.

27. insatiable
   adj. not able to be satisfied; extremely greedy
   greedy, ravenous, unquenchable

One characteristic that many psychologists have agreed is common to creative types is an insatiable curiosity.

28. antecedent
   n. an event or circumstance which precedes another
   forerunner, precursor, predecessor

A book was generally bound simply, in boards or merely stitched in paper wrappers, which was an antecedent of modern-day paperbacks.

29. blunder
n. a foolish or thoughtless, and usually serious, mistake
error, mistake, howler

The airline blundered. It sent him to Atlanta but his luggage to Montreal.

30. ideal
1) n. the best or most suitable that something could be
2) adj. perfect in every way
1) perfection, nonpareil 2) supreme, complete

Many people feel that Hawaii has an almost ideal climate.
1. **postpone**
   
v. to delay or put off something till later
   
   *defer, adjourn, suspend*

   NASA sometimes *postpones* the launch of space vehicles on account of bad weather or technical problems.

2. **atmosphere**
   
n. the layer of gas surrounding a planet; the general or prevailing climate or mood
   
   *aerosphere, air, mood*

   *Atmosphere* is crucial because it protects humans and all other life from the continuous bombardment of cosmic radiation.

3. **axis**
   
n. an imaginary straight line around which an object, like a planet, rotates

   *The axis is tilted so that Earth has various seasons at the northern and southern regions.*

4. **bypass**
   
v. to avoid a congested or blocked place by taking a route which goes round it
   
   *evade, circumvent, sidestep*

   *The moon’s relatively harsh environment is the major reason why it should be bypassed.*

5. **related**
   
   adj. connected with something or someone in some way
   
   *associated, linked, allied*
In science, a theory is a reasonable explanation of observed events that are related.

6. capsize
v. to turn over completely
invert, overturn, upset

Small sailboats can easily capsize if they are not handled carefully.

7. abrasion
n. the process of rubbing a surface very hard so that it becomes damaged or disappears
erosion, friction, wear

Abrasion due to daily wear alters the surface features of beads.

8. atom
n. the smallest unit of a chemical element that can display the properties of that element

Physicists have known since the early nineteenth century that all matter is made up of extremely tiny particles called atoms.

9. aurora
n. an atmospheric phenomenon consisting of bands of light caused by charged solar particles following the Earth’s magnetic lines of force

The colors of an aurora depend on the atoms emitting them.

10. keen
1) adj. having a sharp edge or point
2) adj. enthusiastic about something or someone
1) sharp, pointed 2) eager, enthusiastic
The rhinoceros has a poor sense of sight but a **keen** sense of smell.

11. **gigantic**
   adj. extremely large in size, amount, or degree
   *enormous, huge, massive*

   *Like the dinosaurs, some of the pterosaurs became gigantic.*

12. **grasp**
   1) v. to take a firm hold of something or someone
   2) v. to completely understand
   1) **grip, seize** 2) **understand, comprehend**

   *A couple of major contrasts between ant and human societies are perhaps easier to **grasp.***

13. **groundbreaking**
   adj. making new discoveries; using new methods
   *innovative*

   *The **groundbreaking** work of primatologists Louis Leakey and Jane Goodall has shown that the chimpanzee is not just another monkey.*

14. **hibernation**
   n. passing the winter in a sleeping or inactive condition

   *Some animal activities, such as mating, migration, and **hibernation**, have a yearly cycle.*

15. **hue**
   n. a color or type of color
   *tint, shade, tone*
The bird’s head is colored red and black, and its eyes are a deep, golden hue.

16. **fertilize**  
v. to make new animal or plant develop; to supply soil or land with extra nutrients  
*impregnate, pollinate, enrich*  

The male ants serve one purpose only; to **fertilize** the eggs of the queen.

17. **lacerate**  
v. to cut skin deeply with something sharp; to wound or hurt someone’s feelings  
*gash, rip, wound, hurt*  

The weed has sharp, spiny leaves that can **lacerate** the flesh of ranchers and horses alike.

18. **litter**  
1) n. discarded rubbish lying in a public place  
2) v. to make something untidy  
1) *rubbish, debris* 2) *clutter, scatter*  

The ground under towering oaks is often **littered** with thousands of half-eaten acorns, each one only bitten from the top.

19. **huddle**  
v. to gather or crowd together in a close mass  
*cluster, crowd, pack*  

The effect of sheltering is magnified by several birds, including wrens, swifts, and brown creepers, **huddling** together in the roosts.

20. **nostril**
n. either of the two external openings in the nose

nare

The sea otter is well adapted to its marine existence, with ears and nostrils that can be closed under water.

21. summit

n. the highest point of a mountain or hill

pinnacle, zenith, peak

The snow-covered summit of Mount Hood is the highest point in the state of Oregon.

22. igneous

adj. of rocks formed when magma becomes solid, especially after it has poured out of a volcano

Even today, approximately 95 percent of the entire crust is igneous.

23. crack

n. a partial fracture in a material produced by an external force or internal stress

split, crevice, rift

If there is a crack in the rock, a crack that runs from the aquifer to the surface pushes the water up through it.

24. facet

n. any of the flat sides of something; an aspect of a problem

side, aspect, phase

The more facets a diamond has, the more it glitters.

25. expedition
n. an organized journey with a specific purpose

definition: excursion, exploration

The Lewis and Clark expedition, sponsored by President Jefferson, was the most important examination of the high plains and the northwest before the War of 1812.

26. entomb

v. to put a body in a tomb; to bury someone or something

definition: bury, inter

Although they were entombed in rock for millions of years, many fossils have organic remains in them.

27. fleck

n. a spot or marking

definition: speck, dot, mark

The Glass Mountains of northwestern Oklahoma are covered with flecks of gypsum, which shine in the sunlight.

28. oscillation

n. a movement of swinging or making something swing backward and forward

definition: fluctuation, vibration, swing

In the diurnal type of tidal oscillation, the alternate rise and fall of sea level, a single high water and a single low water occur each tidal day.

29. consecutive

adj. following one after the other; in sequence

definition: successive, succeeding, sequential

The driest deserts are called hyper-arid, and rain is absent for at least twelve consecutive months.
30. **embed**

* v. to set or fix something firmly and deeply

**root, entrench, implant**

When meteorites fell on the continent, they were **embedded** in the moving ice sheets.
1. **harmonize**
   *v.* to form or be made to form a pleasing whole

   *coordinate, conform*

   *Frank Lloyd Wright is known for his highly original methods of harmonizing buildings with their surroundings.*

2. **intimacy**
   *n.* a state of having a close personal relationship with someone

   *familiarity, closeness, nearness*

   *The American farmer is as free of the intimacy of the village as the urbanite.*

3. **impetus**
   *n.* the force with which something moves; a driving force

   *thrust, impulse, stimulus*

   *Brick houses became common in Boston, where the danger of fire gave an impetus to using more durable materials.*

4. **edifice**
   *n.* a building, especially a large and impressive one

   *building, hall, palace*

   *The Executive Mansion, constructed in the 1790s and now called the White House, is the oldest edifice in Washington, D.C.*

5. **foliage**
   *n.* the green leaves on a tree or plant; the sprays of leaves used for decoration
Art deco regularized the forms into abstracted repetitive patterns rather than presenting them as flowing, asymmetrical foliage.

6. archaic
adj. from or relating to ancient times; old and no longer used
antiquated, outmoded, out-of-date

In fact, hybrid technology was archaic as was battery technology.

7. bark
n. the tough and protective outer layer which covers the stems and roots of woody plants

The bark of a tree thickens with age.

8. emission cf. emit
n. the act of sending out light, heat, or gas
discharge, ejection, radiation

Emissions from the new diesel release up to 30% less carbon dioxide into the air than gas burners.

9. encroach (on)
v. to advance beyond proper, established, or usual limits
intrude, trespass, infringe

As populations in Africa explode and encroach on chimpanzee societies, they begin to become infected with disease, suffer, and die.

10. entrench
v. to fortify something with trenches dug around it; to establish something firmly
This combination of resources and technology is entrenched in man’s way of life.

11. environs
n. surrounding areas, especially the outskirts of a town or city
environment, neighborhood

The numbers of bacteria are vast, which allows them both to dominate and maintain a healthy balance within their environs.

12. impede
v. to prevent or delay the start or progress of an activity or something else
obstruct, hamper, hinder

Weeds clog waterways, destroy wildlife habitats, and impede farming.

13. epic
adj. having the features of an epic; very great and impressive
heroic, imposing, impressive

This is unfortunate since the loss of the menhaden spells an eco-disaster of epic proportions.

14. forage
v. to gather food or provisions from an area
graze, pasture

During the day, parties of birds will have spread out to forage over a very large area.

15. fraction
n. a small part of something
Only a small fraction of all the organisms that have ever lived are preserved as fossils.

16. layman

*n.* someone who is not a member of the clergy; someone who does not have specialized knowledge

worldling, nonprofessional

*Both doctors and laymen talk about both hemispheres of the brain as if each has specially assigned functions.*

17. ailment

*n.* an illness, especially a minor one

sickness, affliction, disease

*Anthrax is generally an ailment of sheep and cattle but may also be transmitted to humans.*

18. nausea

*n.* a sensation that one is about to vomit

queasiness, squeamishness

*Early signs characteristic of the acute phase of viral hepatitis are abdominal pain, nausea, and fever often accompanied by chills.*

19. perspiration

*n.* the secretion of fluid by the sweat glands of the skin

sweating

*Anyone working under conditions that cause a heavy amount of perspiration can suffer heat exhaustion.*
20. *pharmaceutical*  
*n.* the preparation of drugs and medicines; medicine  
**medication, drug**

*Thousands today claim that pharmaceuticals have done wonders, helping them manage stress better on a day-to-day basis.*

21. *pulsate*  
*v.* to make sounds or movements that are strong and regular like a heart beating  
**beat, throb, pulse**

*Ki is a kind of life force that pulsates through every human’s body.*

22. *rectify*  
*v.* to correct a mistake; to adjust something  
**correct, revise, fix**

*Research has demonstrated that rapid weight loss can be rectified by providing adequate protein associated with certain foods.*

23. *spinal  cf. spine*  
*adj.* belonging, relating, or referring to the spine

*The spinal column is like the brain in that its main functions can be classified as either sensory or motor functions.*

24. *stamina*  
*n.* energy and staying power  
**vigor, robustness, indefatigability**

*Some teas build stamina and are good for digestive purposes.*
25. correlate
v. to have a connection or correspondence; to relate one thing to another
link, associate, connect

One function of a virus that does not correlate with its size is its ability to cause a serious disease.

26. corrosive
adj. capable of eating away; tending to cause corrosion
caustic

The chemical element chlorine is a corrosive, greenish-yellow gas that has a sharp odor and is 2 1/2 times heavier than air.

27. detergent
n. a liquid or powder used for washing clothes, dishes, or something else
cleanser

Detergents clean clothes by first removing particles of dirt from the fabric and then suspending the particles until they can be washed away.

28. tart
adj. sharp or sour in taste
acidic, sour, tangy

Citric acid gives citrus fruit their tart taste.

29. haphazard
adj. happening or done in a way that is not planned or organized
casual, random, arbitrary

At first, the results of the experiment seemed haphazard, but a pattern finally emerged.
30. tamper (with)
1) v. to interfere or to meddle
2) v. to handle thoughtlessly, ignorantly, or mischievously
1) intervene 2) fiddle, mess

One should never buy food or medicine if the package has obviously been tampered with.
1. **fort**
   *n.* a fortified military building, enclosure, or position
   **fortress, base, stronghold**

   *In addition to their military role, the forts of the nineteenth century provided numerous other benefits for the American West.*

2. **imposing**
   *adj.* impressive, especially in size, dignity, or appearance
   **majestic, magnificent, grand**

   *The First Bank of the United States still stands in the imposing building constructed in the 1790s.*

3. **retract**
   *v.* to refuse to keep an agreement, a promise, or something else
   **withdraw, revoke, cancel**

   *Once determined, little can be done to retract or stop the establishment of monuments.*

4. **apparent**
   *adj.* easy to see or to understand
   **obvious, evident, clear**

   *The way in which a society views its environment is sometimes apparent in its choice and use of artistic materials.*

5. **unearth**
   *v.* to dig something up out of the ground
Vast quantities of tablets in Sumerian have been **unearthed** during the intervening years from numerous sites.

6. **utmost**
   
   *adj.* the greatest possible in degree, number, or amount
   
   **paramount, ultimate, supreme**

   *The clay used in prehistoric pot making was invariably selected with the *utmost* care.*

7. **luster**
   
   *n.* the shiny appearance of something in reflected light
   
   **radiance, luminosity, sheen**

   *The distinctive color and *luster* of pottery were the results of skillful adjustments of the kiln’s temperature.*

8. **mundane**
   
   *adj.* connected with ordinary daily life rather than religious matters
   
   **everyday, prosaic**

   *A man remains a creation eternally torn between the divine and the *mundane.**

9. **ornate**
   
   *adj.* covered with a lot of decoration
   
   **elaborate, flamboyant**

   *These tools were highly *ornate*, with elaborate barbs and points on them.*

10. **procure**
v. to manage to obtain something or to bring something about
**acquire, gain, come by**

Hunting is a precarious way of **procuring** food even when the person’s diet is supplemented with seeds and fruits.

11. **ramble**

v. to go where one pleases; to wander
**stroll, amble, meander**

The Anasazi began to build their homes above ground and joined them together into **rambling** multistoried complexes.

12. **rebuke**

1) n. a stern reprimand or reproach
2) v. to speak severely to someone
1) **criticism** 2) **reprove, scold**

Fighting, bullying, or attempting to surpass others brings automatic **rebuke** from the community.

13. **sufficient**

adj. as much as is needed for a particular purpose
**enough, adequate**

They enjoyed **sufficient** patronage to allow them to maintain an image of themselves as professional artists.

14. **setting**

n. a set of surroundings; a background within or against which action takes place
**environment, background, scene**

The museum featured paintings by Peale and his family and displays of animals in their natural
settings.

15. **solemn**

*adj.* very serious and not happy; performed in a very serious way

**grave, serious, sober**

Within a very short time, the incongruity of playing lively music for a **solemn** film became apparent.

16. **contrasting**

*adj.* different or dissimilar between things or people that are being compared

**different, dissimilar, distinct**

The new taste demanded dramatic effects of **contrasting** stark outline and complex textural surfaces.

17. **struggle**

*n.* a long and hard fight to get freedom, political rights, or something else; a task requiring strenuous effort

**fight, strife, effort**

The Hudson River School seems to have emerged in the 1870s as a direct result of the **struggle** between the old and new generations of artists.

18. **prodigious**

*adj.* very large or great in a surprising or impressive way

**huge, enormous, immense**

Her productivity has been **prodigious**, as she has, in less than two decades, written nearly thirty works.

19. **protrude**

*v.* to stick out from somewhere

**project, extend**
The painter stands out with his life-sized painting of a woman’s bent back from which protrude real thorns.

20. score

n. a written or printed copy of music for several parts and which is set out vertically down the page

The most famous score was composed and arranged for D. W. Griffith’s film Birth of a Nation.

21. spontaneous

adj. unplanned and voluntary or instinctive; not provoked or invited by others

Music began playing a greater role in opera, was spontaneous, and often mirrored the characters’ emotions.

22. criterion

n. a standard or principle on which to base a judgment

Some groups judged potential members through a complex set of criteria that often included class, education and skin tone.

23. in vain

ph. without success; to no purpose

Supply ships were essential during the war because, without the supply ships, all would be in vain.

24. rugged
adj. not having a level or smooth surface
jagged, rough, bumpy

The glass fibers were brittle, **ragged**, and no longer than ten feet.

25. **in proportion to**

*ph. having due proportion*
corresponding

The high-pressure engine was far lighter **in proportion to** its horsepower and was much easier and cheaper to repair than the previous one.

26. **obsessed**

*adj. completely or constantly occupied by thoughts or the mind*
haunted, preoccupied, possessed

Evans quickly became **obsessed** by the possibilities of mechanized production and steam power.

27. **option** cf. *opt*

*n. the power, right, or opportunity to choose*
choice, selection

Their speed of travel made steamboats the most attractive and practical **option** for shipping as well as for human travel.

28. **ridge**

*n. a long and narrow strip of relatively high ground with steep slopes on either side*
crest, strip, top edge

The distance was more than 350 miles, and there were **ridges** to cross and a wilderness of woods and swamps to penetrate.
29. resort (to)
v. to turn to something as a means of solving a problem

It is pleasant to imagine a woodworker carefully matching lumber and joining a chest together without resort to nails or glue.

30. aid
v. to help or support in the form of money, supplies, or services

The swamp’s environment kept bacterial decay down, which aided in the preservation of plants and animals.
1. **wage**

*n. a regular payment from an employer to an employee*

*salary, pay, earnings*

*Congress sets the minimum wage, which is the lowest amount of money workers may be paid per hour.*

2. **communal**

*adj. for or by a group rather than individuals*

*collective, shared, common*

*Communal violence broke out in different parts of the country.*

3. **boom**

*v. to become rapidly prosperous; to increase sharply in value*

*prosper, flourish, roar*

*The glass factories of Toledo, Ohio, boomed after Michael Owens invented a process that turned out bottles by the thousands.*

4. **ploy**

*n. a stratagem or maneuver to gain an advantage*

*artifice, trick, wile*

*At this point, she may use one of several ploys to deceive her enemy.*

5. **follow suit**

*ph. to do the same thing; to follow the example of another*

*follow in one’s tracks, conform to*
When Britain developed coke smelting, the colonies did not follow suit because they had plenty of wood.

6. **foment**
   v. to encourage or foster ill-feeling or something else
   agitate, inflame, provoke

   The event was a major issue that fomented the break between England and the British colonies.

7. **implement**
   1) v. to take action or make changes that have been decided
   2) n. a tool, especially one used for outdoor physical work
   1) execute, carry out 2) instrument, utensil

   A plow is a farm implement used to break up soil and to prepare the land for planting.

8. **jolt**
   n. a jarring shake; an emotional shock
   bounce, blow, shock

   The coach’s rugged body and suspension system of leather straps could handle the hard jolts from rough roads.

9. **altogether**
   adv. wholly; with all or everything included
   entirely, totally, utterly

   The interrelationship of science, technology, and industry is summed up, not altogether accurately, as “research and development.”
10. assassinate  cf. assassin
v. to kill suddenly or secretly
kill, murder

A group who favored the restoration of the Roman Republic assassinated Caesar in 44 B.C.

11. optimal
adj. most favorable; most suitable
optimum

Proponents of the worksheet procedure believe that it will yield optimal, that is, the best decisions.

12. hygiene
n. a condition of cleanliness that helps maintain health
cleanliness, sanitation

City streets were crowded with citizens, and hygiene was not at the top of a fourteenth-century European’s list of priorities.

13. influx
n. a continual stream or arrival of large numbers of people or things
inflow, inrush

This black influx to cities increased during World War II as blacks came seeking jobs in the war industries.

14. ingenuity
n. inventive cleverness, skill, or originality; inventiveness
handiness, brilliance, creativity

Some functions of the park are direct results of the ingenuity of the citizenry.
15. **instability**  cf. **stability**
n. a lack of physical or mental steadiness or stability
insecurity, precariousness, shakiness

The rezoning plan would catalyze physical expansion and accelerate the inherent **instability** of urban life.

16. **gulf**
n. a portion of an ocean or sea partly enclosed by land; a large difference between two people or groups
bay, cove, gap

A **gulf** that at times seemed unbridgeable was created between husbands and wives.

17. **intriguing**
adj. arousing curiosity or interest
interesting, fascinating, immersing

The bustle and social interaction of urban life seemed particularly **intriguing** to those raised in rural isolation.

18. **cooperation**
n. an act or instance of working or acting together for a common purpose
collaboration, teamwork, interaction

The original motivation for the space station was to foster **cooperation** between the United States and the Soviet Union.

19. **accuse**
v. to make a claim of wrongdoing against
blame, denounce, indict
In the United States, every person **accused** of a crime has the right to a trial by a jury of his or her peers.

20. **eloquently**

*adv. in an eloquent manner; by powerful discourse*

**fluently, persuasively, effectively**

*Few American politicians have spoken more **eloquently** than William Jennings Bryan.*

21. **feeble**

*adj. lacking strength*

**fragile, weak, infirm**

*The national government made a **feeble** attempt to reduce taxes.*

22. **intertwine**

*v. to twist or be twisted together*

**interweave, interlace, entangle**

*The American Constitution clearly states that religious worship and governmental activities shall not be **intertwined**.*

23. **nominate**

*v. to suggest someone formally for a position, office, or something else*

**appoint, designate, name**

*In 1884, Belva Lockwood, a lawyer who had appeared before the Supreme Court, became the first woman **nominated** for president of the United States.*

24. **decree**

*v. to order or decide something formally or officially*
The president decreed that no more money would be spent on missile defense.

25. fair
n. an event at which people or businesses show and sell their products; a market
exhibition, exposition, bazaar

The fairs provided a means of bringing handmade goods from outlying places to would-be buyers in the city.

26. bond
1) n. something used for tying, binding, or holding
2) n. a written agreement to pay money
1) tie 2) contract, covenant

Investment banking deals with corporate stocks and bonds as well as the government bonds.

27. condemn
1) v. to declare something to be wrong or evil
2) v. to give someone a punishment after deciding the person is guilty of a crime
1) criticize 2) convict, sentence

When Martin Luther was condemned as a religious outlaw, he experienced profound spiritual and physical torment.

28. nurture
1) n. care or nourishment given to a growing child
2) v. to nourish and tend to a growing child
1) raising 2) foster, nourish

The other theory maintains that a child is defined by environment – nurture – not nature.
29. **statutorily**

*adv.* in terms of rules or laws which have been formally written down

**legally, legitimately**

The name “charter” refers to the **statutorily** defined performance contract that the schools are expected to meet.

30. **intrude**

*v.* to force or impose oneself without welcome or invitation

**encroach, interfere, break in**

The printed word, unquestionably, was **intruding** on the insulation that had characterized the United States society in an earlier period.
1. **fickle**
   
   *adj.* likely to change suddenly and without reason
   
   *capricious, inconstant*

   This, along with the **fickle** nature of hurricanes, adds to the turmoil that hurricanes inflict on the populations of the areas they hit.

2. **celestial**
   
   *adj.* belonging or relating to the sky
   
   *astronomical, heavenly*

   The orbit of a **celestial** body is usually in the shape of an ellipse.

3. **staggering**
   
   *adj.* almost unbelievable
   
   *amazing, surprising, unpredictable*

   The process could take hundreds or even thousands of years to complete, and the cost would be **staggering**.

4. **contradict**
   
   *v.* to assert the opposite of a statement or something else made by a person; to disagree with
   
   *controvert, counter*

   Newton's idea of gravity as a force of attraction, which **contradicted** the idea of a universe that is static, was unchanging.

5. **crater**
n. the bowl-shaped mouth of a volcano or geyser

hole, cavity, pit

The roughness of the moon’s surface is mostly caused by the abundance of craters.

6. retreat

v. to move back or away from the enemy or to retire after defeat
withdraw, recede, evacuate

Some 800 years ago, Alaska’s Hubbard Glacier advanced toward the sea, retreated, and advanced again 500 years later.

7. interstitial

adj. pertaining to, situated in, or forming a space or crack

Some fossil bones have all of their interstitial spaces filled with foreign minerals.

8. misconception

n. a wrong or misguided attitude, opinion, or view
misapprehension, misjudgment, misunderstanding

That all deserts are hot is a common misconception.

9. granular

adj. made of or containing tiny particles or granules
grainy, gritty, particulate

As new snow falls and buries the older snow, the layers of granular snow further compact.

10. hemisphere

n. one half of a sphere
Logically, in the Northern Hemisphere, a north wind turns to bring colder weather and the south wind warmer weather.

### 11. ornamental

*adj.* serving as an ornament

**decorative, adorning, beautifying**

An *ornamental* plant is cultivated chiefly for its beauty.

### 12. estimate

*v.* to judge or calculate size, amount, or value roughly or without measuring

**approximate, gauge, guess**

A professor *estimated* that each large white oak produced between two and eight thousand acorns.

### 13. disproportionately

*adv.* out of proportion, as in size or number

**asymmetrically, unevenly**

Humans are *disproportionately* right-handed.

### 14. stash

*v.* to put aside or away for safekeeping or future use, usually in a secret place

**cache, secrete**

The ant colony contains all of the ants’ important possessions, such as the queen and their *stashed* food reserves.

### 15. forerunner

*n.* a person or thing that goes before; an earlier type or version
predecessor, forebear, precursor

Experts have concentrated their studies on the species called the Allosaur, a forerunner of the massive Tyrannosaurus Rex.

16. fragrant
adj. having a pleasant scent or aroma
sweet-smelling, sweet-scented, aromatic

The daylily is an attractive, fragrant flower.

17. dehydration
n. dryness resulting from the removal of water; an abnormal loss of water from the body

evaporation

Dehydration occurs when more water is lost through perspiration or diarrhea than is replaced by fluid intake.

18. obedient
adj. doing what one is ordered to do; willing to obey
observant, docile, compliant

They are wild animals and do not make obedient, domesticated pets.

19. impinge
1) v. to interfere with or encroach on something or someone
2) v. to make an impression
1) infringe, encroach 2) impact

Florida’s surrounding lushness cannot impinge on its desert scrubbiness.
20. omnivorous
adj. eating any type of food, especially both meat and vegetable matter

polyphagous

Chimpanzees are omnivorous, which means that they rely on meat, plant life, and fruit for subsistence.

21. pandemonium
n. any very disorderly or noisy place or assembly
chaos, turmoil, uproar

The chimpanzee’s ability to use tools caused near pandemonium in the scientific world.

22. transmit
v. to pass or hand on, especially a message, an inheritance, or disease
transfer, convey, send

Paths, roads, and trails made journeys easier, and the creation of maps transmitted this knowledge to others.

23. bound
adj. tied with or as if with a rope or other binding; stuck together
fastened, tied, fixed

The process by which individual crystals become bound together in a collection of ice crystals produces glacial ice.

24. ore
n. rock, earth, or something else from which metal can be obtained

The ore is broken up in a series of blasting operations.
25. bunch
1) n. a number of things fastened or growing together
2) v. to group together in or to form a bunch or bunches of something
1) bundle, cluster 2) collect, gather

In the polar regions, the magnetic lines of force of the Earth and of the solar wind bunch together.

26. acronym
n. a word made from the first letters of other words and pronounced as a word in its own right
abbreviation

The word laser was coined as an acronym for Light Amplification by the Stimulated Emission of Radiation.

27. conflict
1) n. a disagreement; a fierce argument
2) v. to be incompatible or in opposition; to fight
1) dispute, opposition 2) disagree, clash

When Jules Verne wrote Journey to the Center of the Earth in 1864, there were many conflicting theories about the nature of the Earth's interior.

28. outfit
1) n. a set of equipment; an organization
2) v. to provide someone with an outfit
1) apparatus, group 2) equip, furnish

The cable ship crew will pull the trencher back up to the surface and outfit it with a burying apparatus.

29. percolate
v. to pass slowly through a material that has small holes in it
All of the minerals deposited within the bone have been recrystallized from solution by the action of water *percolating* through them.

30. **insurmountable**

*adj.* too large or difficult to be dealt with

**unbeatable, indomitable, invincible**

The difficulties involved in rapidly collecting and processing the raw weather data from such an old network were *insurmountable*. 
1. **commission**

* v. to give a commission or authority to someone
* authorize, license, charge

*The city’s social leadership *commissioned* mansions while apartments and hotels began to sprout on multiple lots.*

2. **engage**

1) *v.* to take someone on as a worker
2) *v.* to involve or to occupy

1) *employ, hire* 2) *occupy, absorb*

*In 1903, the governing board of the University of Washington *engaged* a firm of landscape architects.*

3. **frenetic**

*adj.* wildly excited or active; in an uncontrolled way
*frantic, frenzied*

*Hotels were both creatures and creators of communities as well as symptoms of the *frenetic* quest for community.*

4. **hurl**

* v. to throw something with force
*cast, throw, pitch*

*Passenger terminals, like the luxury express trains that *hurled* people over spots, spotlight the romance of railroading.*
5. **suspension**  
*n.* the act of suspending or the state of being suspended

The George Washington Bridge is a **suspension** bridge between New York City and Fort Lee, New Jersey.

6. **arbitrary**  
*adj.* not based on any principle  
capricious, erratic

In constructing the botanical gardens, some **arbitrary**, practical decisions were made.

7. **fringe**  
*n.* a border of loose threads on a garment or something else  
border, edge, trimming

In terrestrial ecosystems and in **fringe** marine ecosystems, the most common problem is habitat destruction.

8. **germinate**  
*v.* to cause a seed to start growing; to show the first signs of development  
sprout

These acorn halves, many of which contain seeds, may later **germinate**.

9. **hack**  
*v.* to cut or chop something roughly  
hew, slash, slice

What is so worrisome is that acre upon acre of the animals’ habitat is being **hacked** to the ground every day.
10. **herbicide**  
*n*. a substance used to kill weeds  
**weed-killer**

*The herbicides are effective, but some pose serious problems, particularly if misused.*

11. **scurry**  
*v*. to move hurriedly or briskly  
**hurry, rush, dash**

*The ducks respond by *scurrying* to gather around her.*

12. **inclination**  
1) *n*. the degree at which an object slopes away from a vertical line  
2) *n*. a particular tendency  
1) **tilt, slope** 2) **disposition, preference**

*Individual birds have markedly different interests, *inclinations*, and strategies.*

13. **infrastructure**  
*n*. the basic inner structure of a society, organization, or system  
**base**

*They have established another company to help develop the *infrastructure* of hydrogen separation and hydrogen supply points.*

14. **iron out**  
*ph.* to solve or get rid of problems or difficulties, especially small ones  
**resolve, clear up**

*Until these basic problems are *ironed out*, hydrogen will not turn into a major source of energy.*
15. **lurking**
*adj.* lying in wait, especially in ambush, with some sinister purpose in mind
*hiding, sneaking, slinking*

Still, there is another predator **lurking** invisibly in the bodies of water of the world; bacteria.

16. **stimulant**
*n.* any substance that produces an increase in particular activity
*stimulus, spur, incentive*

Occasionally, doctors will provide **stimulants**, but these can cause addiction and are usually avoided except in the most extreme cases.

17. **stroke**
*n.* a interruption to the supply of blood to the brain, thereby causing unconsciousness
*cerebral apoplexy, attack, seizure*

If a blood clot goes to the brain, it can cause a **stroke** or even death.

18. **stutter**
*n.* an inability to form words at what is considered a normal speed of speech
*stammer, slur*

*The newest theories on stuttering concentrate on how the brain functions during speech.*

19. **subconscious**
*adj.* denoting mental processes which a person is not fully aware of
*subliminal*

*Specialists believe stutterers are listening to themselves as they talk but at a **subconscious** level of*
transfusion

n. the process of introducing blood directly into the bloodstream of a person

You may know that, nowadays, blood transfusions, or the giving of one person’s blood to another, are a common practice.

transplanted

adj. having taken a living organ from someone and using it as an implant; having taken a plant out of the ground and put it in a different place

relocated, uprooted, removed

The immune system takes action against foreign invaders and transplanted tissues that are treated as foreign cells.

equilibrium

n. a state in which various forces balance each other

balance

Illness can result when bodily systems are not in equilibrium.

outage

n. a period of time during which a power supply fails to operate

power failure, power cut

The 1979 power outage in New York City caused half of the city to be without electricity for several hours.

infinitesimal

adj. infinitely small; with a value too close to zero to be measured
A virus is so infinitesimal that it can be seen only with an electron microscope.

25. inert
adj. tending to remain in a state of rest or uniform motion
inactive, inanimate, motionless

These gases include helium, neon, and argon and are called inert because they bond with other elements only with extreme difficulty.

26. integrity
n. the quality or state of being whole and unimpaired
completeness, entirety, soundness

The colony odor allows ants to identify intruders and to maintain colony integrity.

27. malleable
adj. able to be beaten into a different shape or bent without breaking
flexible, pliable, tractable

The mixture becomes soft and malleable and can be formed into many shapes and sizes.

28. fortuitously
adv. by chance or haphazardly
incidentally, haphazardly, accidentally

On a 1948 vacation, Hazen fortuitously collected a clump of soil from the edge of a cow pasture in Fauquier County, Virginia.
**bow**, **head**

To ensure proper identification, the **prows** of Viking warships were either adorned with carved figures or vividly painted.

**counterpart**

*n.* one of two parts which form a corresponding pair

**rival, equivalent, parallel**

Digital cameras are likely to replace their traditional **counterparts** as prices of electronic components go down.
1. **veil**

1) *n.* a fabric covering for a woman’s head or face
2) *v.* to cover something

1) *cloak, curtain* 2) *conceal, hide*

Eventually, stories arose which explained or **veiled** the mysteries of the rites.

2. **worldly**

*adj.* relating to this world; material, as opposed to spiritual or eternal

*earthly, secular, mundane*

*An elaborate funeral celebration is also important to impress the gods with the individual’s **worldly** importance and wealth.*

3. **relent**  cf. **relentlessly**

*v.* to become less severe or unkind

*relax, soften*

*He could have **relented,** but he decided to attack.*

4. **sanitation**

*n.* the system that keeps places clean, especially by removing human waste

*In Sacramento, an excavation at a site revealed garbage in the building basement despite **sanitation** laws to the contrary.*

5. **scorch**

*v.* to burn or be burned slightly or superficially
This timber might be scorched occasionally, but it was far enough in front of the rising column of heat to be safe from catching fire.

6. stalk
1) v. to walk in a proud proved or angry way and with long steps
2) v. to hunt, follow, or approach stealthily
1) strut, prance 2) chase, hunt

Many accounts say that Genghis Khan stalked and killed his older half-brother.

7. stringent
adj. not allowing for any exceptions or loosening of standards
rigid, strict, inflexible

The archaeologists stated that they have subjected their findings to stringent and numerous tests.

8. subjugate
v. to dominate someone; to bring someone under control
subdue, suppress, subject

The peoples subjugated by the Nazis labored, sometimes without pay and sometimes for a pittance.

9. lavish
adj. spending or giving generously
generous, unsparing, open-handed

In most cultures, it is traditional to prepare lavish meals to celebrate holidays.

10. vital
adj. relating to or essential for life; extremely important and necessary
essential, requisite, crucial

From colonial times, sailing ships were vital to the economy.

11. supplant
v. to take the place of someone or something, often by force or unfair means
replace, substitute, supersede

Modern dictators are using art to help their states supplant religion with political myths.

12. frustration   cf. frustrate
n. the fact that something is preventing someone from succeeding; the feeling of being frustrated
prevention, disappointment, dissatisfaction

Expressionist drama often shows the influence of modern psychology by reflecting the inner frustrations of the dramatist.

13. trace
1) v. to track by following clues
2) n. a sign of presence in a particular place
1) pursue, shadow 2) print, footprint

Another theory traces the theater’s origin from the human interest in storytelling.

14. vividly
adv. in a very clear and detailed manner
distinctly, clearly, lively

In his novel The Red Badge of Courage, Stephen Crane vividly describes a Civil War battle.
15. accomplished
adj. expert or skilled
versed, adept, proficient

An accomplished saxophonist and composer, John Coltrane began his career playing in the big bands of the early 1950s.

16. subject  cf. be subject to
v. to cause something to undergo something unpleasant
expose, submit, lay open

When songs have been subjected to complex processes, their origins are usually impossible to trace.

17. unadorned
adj. without unnecessary or special features or decorations
undecorated, unornamented, unembellished

Many early jazz bands played unadorned published arrangements of popular songs.

18. inflection
n. a change in the tone or pitch of a voice
accent, intonation

Babies can detect the difference between syllables pronounced with rising and falling inflections.

19. vary
v. to be different from each other in size, shape, or something else
differ, diverge

In the early days of the United States, postal charges were paid by the recipient, and charges varied according to the distance carried.
20. **apply (to)**

*v. to use something like a method, idea, or law in a particular situation, activity, or process*

*use, utilize, employ*

This term was usually applied to a fabric of wool and linen used in heavy clothing and quilted petticoats worn in the wintertime.

21. **periphery**

*n. the edge or boundary of something*

*perimeter, circumference, rim*

Over 100 areas designated as conservation of wildlife preserves exist around the periphery of the Caribbean Sea.

22. **persist**

*v. to continue with something in spite of resistance and difficulty*

*continue, preserve, insist*

Along with market days, the institution days of twice-yearly fairs persisted in Philadelphia.

23. **indigenous**

*adj. belonging naturally to a country or area*

*native, local, aboriginal*

The indigenous people of Australia were called Aborigines by the English settlers.

24. **submission**

*n. a bending to the authority or control of another*

*surrender, concession, obedience*

Genghis Khan often sent an emissary ahead to a city to ask for its submission.
25. **thereby**

*adv.* with the result that something else happens

*thus, therefore, hence*

Non-Western music typically divides an interval between two pitches more finely than Western music does, **thereby** producing a great number of distinct tones, or microtones, within the same interval.

26. **agent**

1) *n.* someone or something that affects or changes a situation
2) *n.* someone who represents an organization and acts on its behalf

*1) factor, means 2) proxy, representative*

Organisms must be buried rapidly to escape destruction by the elements and to be protected from *agents* of weathering and erosion.

27. **trickle**

*v.* to flow in a thin and slow stream or drops

*drip, drop, flow*

The climate is dry, but tiny streams **trickle** at the bottom of deeply cut canyons.

28. **perishable**  *cf. perish*

*adj.* liable to rot or to go bad quickly

Before refrigerators came into common use, people in rural areas often had a well or a springhouse to keep *perishable* foods fresh.

29. **preside**

*v.* to take the lead at an event; to be in charge

*chair, supervise, oversee*
Mr. Kennedy was scheduled to *preside* at 4 p.m. over a meeting of the National Security Council.

30. **anonymous**

adj. having no name; from someone whose name is not known

*nameless, incognito, unidentified*

*The terminology by which artists were described at the time suggests their status: "limner" was usually applied to **anonymous** portrait painters up to the 1760s.*
1. **yield**
   1) *v.* to give up or to give in
   2) *n.* the amount of profits or crops that something produces

   1) **surrender, hand in**  2) **production, output**

   *Fertilizers can increase farmers’ yields.*

2. **allot**
   *v.* to give a share of something to each member of a group

   *allocate, apportion, distribute*

   *Rationing is a system for **allotting** scarce resources.*

3. **discriminate**
   *v.* to recognize a difference between things; to treat a person or group differently from another in an unfair way

   *differentiate, discern, segregate*

   *It is illegal for universities and colleges to **discriminate** on the basis of sex, religion, or national origin.*

4. **lull**
   *v.* to make someone relaxed and calm

   *soothe, calm, tranquilize*

   *Parents often sing to children to **lull** them to sleep.*
v. to tempt or to entice, often by the offer of some reward
tempt, attract, seduce

Many adults were lured to the cities by promises of steady employment.

6. mason
n. someone who is skilled in shaping stones for building work
stonecutter

Where stone was the local building material, a mason was sure to appear on the list of people who paid taxes.

7. merger
n. a joining together, especially of business firms
consolidation, amalgamation, combination

A merger is achieved when a company purchases the property of other firms.

8. mint
v. to manufacture coins
coin

Both the United States silver dollar and half-dollar, first minted in 1794, had the figures of Liberty on one side and an eagle on the reverse side.

9. ratify
v. to give formal consent to a treaty or agreement
approve, endorse, validate

Congress must write and ratify the declaration much like a law.
Today, there is a high demand for people who might be able to control or reverse the aging process.

The agricultural potential of the area was enormous if water for irrigation could be found.

It can always be proven that the members of a lineage share blood ties.

A person who has been accused of a crime cannot be forced to divulge any information that is self-incriminating.

Patrilineal descent is often used in monarchies to determine who has the best claim on the throne.
15. municipal
adj. relating to or belonging to the local government of a town or region
civic, urban

Water and sewage systems were usually operated by municipal governments.

16. potential
adj. possible or likely, though as yet not tested or actual
possible, dormant, latent

Real estate developers added 800,000 potential building sites to the Chicago region in just fifty years.

17. precarious
adj. not in complete control of something unsafe
unreliable, perilous, risky

Thousands abandoned their precarious lives on the farm for more secure and better paying jobs in the city.

18. notoriety cf. notorious
n. the state of being known for something bad or unfavorable
disgrace, dishonor, disrepute

He achieved notoriety as chief counsel to President Nixon during the Watergate break-in.

19. prejudice
n. a biased opinion based on insufficient knowledge
partiality, bias, prejudegment

Ethnic and religious prejudice often influences politics.
20. **split**
n. a tear or crack in something; a separation or division through disagreement
   crack, rift, division

*It was the split of eleven southern states from the Union in 1861 that led to the Civil War in the United States.*

21. **appliance**
n. a piece of equipment, especially something electrical
gadget, contrivance

*The electric toaster was one of the earliest appliances to be developed for the kitchen.*

22. **loom**
1) v. to appear in an enlarged form
2) v. to appear important or threatening and likely to happen soon
   1) appear, emerge 2) predominate

*After the Civil War, financial problems loomed large in both the North and the South.*

23. **dramatically**
adv. forcefully in appearance or effect
sensationally, strikingly, suddenly

*Critics argue that urbanization has created many problems and has dramatically decreased people’s quality of life in cities.*

24. **snippet**
n. a scrap of information, news, or something else
snatch, extract

*In snippets, politicians assert but do not argue.*
25. superintendent
   n. someone whose job is to manage a department
   supervisor, overseer, foreman

   She served as the superintendent of a group of hospital nurses for the federal government.

26. pertinent
   adj. relating to or concerned with something
   appropriate, pertaining, relevant

   It is an ability to ask pertinent questions, recognize defensible answers, and reject spurious or irrelevant ones.

27. trigger
   v. to pull a trigger or detonating device; to start a train of events
   activate, propel, spark

   A sense of danger nearby, whether real or imagined, triggers various reactions in the body.

28. cursive
   adj. having letters which are joined rather than printed separately
   flowing, running

   The children moved from writing in block capital letters to cursive script.

29. rank
   1) v. to have a particular status in relation to others
   2) n. a position of seniority within an organization
   1) rate, grade 2) status, standing
Despite its greater number of dead, the Russian effort ranks second place to the American effort during World War II.

30. **preoccupied**

*adj.* lost in thought and unaware of one’s surroundings or actions

**engrossed, absorbed, rapt**

*People were becoming more and more preoccupied with their own lives.*
1. **descend**
   *v.* to go or move down from a higher to a lower position
   *get down, decline, slope*

   Smokejumpers are firefighters who **descend** into remote areas by parachute to fight forest fires.

2. **inexorable**
   *adj.* incapable of being made to change a position; unrelenting
   *unavoidable, inevitable, merciless*

   A glacier’s process is slow but **inexorable**.

3. **docket**
   *n.* any label accompanying a package; a list of things to be done
   *tag, timetable, agenda*

   The moon is already on NASA’s **docket** for further exploration within the next couple of decades.

4. **commence**
   *v.* to begin or start something
   *begin, initiate, launch*

   The Space Age **commenced** in October 1957 when Sputnik was launched by the Soviet Union.

5. **entity**
   *n.* something that has a physical existence as opposed to a quality or mood
   *being, object, thing*
But none of the shapes on the list describes the largest single *entities* in the universe.

6. **extract**
   v. to pull or draw something out, especially by force or with effort
   *extricate, pull, derive*

   *Hydrogen can be extracted from water sources and used as fuel.*

7. **rear**
   n. the back of something, as distinguished from the front
   *back, end, hind part*

   *As the cat rotates the front of its body clockwise, its *rear* and tail twist counterclockwise so that the total spin remains zero.*

8. **intense**
   adj. very great or extreme, especially in quality or feeling
   *powerful, severe, extreme*

   *A laser uses a synthetic ruby to concentrate light into an extremely *intense* high-energy beam.*

9. **plate**
   n. a thin and flat piece of metal; any of the rigid sections that make up the Earth’s crust
   *panel, layer*

   *They can measure the movement of the *plates* but not when they will spawn an earthquake.*

10. **kinetic**
    adj. relating to or producing motion
    *motive*
When each fragment slammed into the atmosphere, its immense kinetic energy was transformed into heat.

11. lubricant

*n.* oil, grease, or something else used to reduce friction

Subglacial streams of meltwater might act as a lubricant, allowing the glacier to flow rapidly toward the sea.

12. extend

*v.* to make something longer or larger

*stretch,* *elongate,* *broaden*

The evaporated water is replaced by water moving from inside the plant in unbroken columns that extend from the top of a plant to its roots.

13. cast off

*ph.* to remove something or someone that becomes unnecessary

*throw off,* *shed*

When attacked, the sea cucumber also casts off attached structures such as tentacles.

14. colony

1) *n.* an area under the political control of a distant country
2) *n.* a group of the same kind of animals or plants
1) *settlement* 2) *community*

When it comes to ant colonies, certain kinds of ants are divided into highly specialized positions.

15. porous

*adj.* referring or relating to a material that contains pores or cavities
spongy, permeable, pervious

Porous rocks such as chalk and sandstone allow water to soak through them.

16. discard
v. to get rid of something as useless or unwanted
dispense with, dispose of, abandon

Using its bill and tongue, the bird cracks open and discards the woody seed covering and swallows the nutritious inner kernel.

17. counteract
v. to reduce or prevent the effect of something
counterbalance, neutralize, nullify

Increased protection by the mass roots is counteracted since they attract predators and are vulnerable if they are on the ground.

18. parasite
n. a plant or animal that lives on or in other living things
hanger-on, freeloader

Perhaps the most straightforward dependence of one species on another occurs with parasites.

19. peculiar
adj. strange or unusual, especially in a way that is unpleasant or worrying
odd, weird, quaint

All birds have wings, too, but wings are not peculiar to birds.
n. any animal that obtains food by eating other animals

Fish are not the only predators of menhaden as birds also depend on them as a source of nourishment.

21. dwindle

v. to shrink in size, number, or intensity
decrease, diminish, reduce

The amount of open space has dwinded as more and more land is developed.

22. application

n. the act of using something for a particular purpose
utilization, operation, use

The applications of GPS are wide-ranging.

23. primate

n. a member of the group of animals that includes humans and monkeys

Their astonishing research reveals that these primates exhibit numerous highly developed physical as well as mental characteristics.

24. pry

v. to move, raise, or open by leverage
lever, jimmy, prize

Squirrels pry off the caps of acorns and bite through the shells to get at the inner kernels.

25. benign

adj. kind and gentle; not dangerous or likely to cause death
gentle, mild, nonfatal
Following the early Proterozoic, the climate appears to have been fairly **benign** for a very long time.

26. **hydraulic**

*adj.* moved or operated by the pressure of water or other liquid

Hydraulic elevators are still used in some old buildings, but almost all new buildings are equipped with electrical elevators.

27. **discrete**

*adj.* separate and distinct from each other

**separate, individual, disconnected**

By such ingenious adaptations to specific pollinators, orchids have avoided the hazards of rampant crossbreeding in the wild, assuring the survival of species as **discrete** identities.

28. **quarry**

*v.* to dig stone or sand from a quarry

**mine, extract**

One of the latest methods of **quarrying** stone is cutting the stone with a jet torch.

29. **scuff**

*v.* to brush, graze, or scrape, especially shoes or heels while walking

**scrape, abrade**

Caves are usually created by carbonate acid trickling down, but the cave was **scuffed** out by powerful acid that rose from below.

30. **sediment**

*n.* solid particles that have settled at the bottom of a liquid
A delta can build up for many centuries, and, if there is enough sediment, it can produce islands.
1. **adjoin**
   v. to be next to; to be contiguous to
   **neighbor, abut, border**

   Their rooms on upper floors could be entered both by doorways from *adjoining* rooms and by a hole in the ceiling.

2. **cluster**
   1) n. a small group or gathering
   2) v. to form into a cluster or clusters
   1) **collection, bunch** 2) **gather**

   The motels *clustered* along transcontinental highways such as U.S. Routes 40 and 66.

3. **lug**
   n. a part of something that sticks out and can be used as a handle or a support
   **grip, handle**

   Wood from a freshly cut tree was used for the *lug* pole, so it would resist heat.

4. **sumptuous**
   adj. very impressive and expensive
   **costly, expensive, luxurious**

   These who could afford the buildings were quite content to live in the more *sumptuous*, single-family homes.

5. **motif**
1) n. an idea or subject repeated throughout a work
2) n. a single design
1) theme, topic 2) pattern, figure

Stone carvers engraved motifs of skulls and crossbones and other religious icons of death into the tombstones in old burial grounds.

6. aerial
adj. relating to or found in the air; from a plane

An aerial view of the border between Haiti and the Dominican Republic shows a remarkable sight.

7. mar
v. to spoil something; to make something less attractive or enjoyable
damage, spoil, impair

Marring our gardens is one of the milder effects of weeds.

8. pneumatic
adj. filled with air; worked by air pressure

Compressed air provides the power to drive pneumatic tools.

9. paucity
n. less than is needed of something
lack, shortage, scarcity

Because of skyrocketing populations and the paucity of housing in many regions of Africa, developers are cutting back the jungle.

10. perpetuation
n. an endless existence for an indefinite period of time
continuance, eternity, immortality

Migration is the second major hurdle the whooping crane and conservationists alike needed to overcome in order to secure the birds’ perpetuation.

11. pesky
adj. annoying
troublesome, bothersome, disturbing

Are squirrels dispersers and planters of oak forests or pesky seed predators?

12. pillage
v. to steal things from a place or region, especially in a war, by using violence
loot, plunder

Once the eggs were pillaged from nests, future generations became placed even more in jeopardy.

13. pollutant cf. pollute
n. any substance or agent that pollutes
adulterant, contaminant, impurity

In the future, even water vapor might be considered an air pollutant under certain conditions.

14. proliferate
v. to reproduce rapidly; to increase in number
grow, increase, multiply

The species will continue to expand and to proliferate in most regions of the world.

15. purification cf. purify
n. the act or an instance of cleansing or purifying
cleansing, sanctification

Human output may temporarily overload the natural purification scheme of the cycle.

16. fracture
n. a crack or broken part in a bone or other hard substance
break, breakage

We are able to repair damage such as bone fractures and injuries to the skin and muscles.

17. cranial
adj. relating to or in the region of the skull

The peripheral nervous system is responsible for controlling cranial, spinal, and autonomic nerves.

18. dissection
n. the separation and identification of the parts of a whole
breakdown, anatomizing

Early studies of anatomy were hampered by the authorities’ disapproval of dissections, and by the lack of refrigeration.

19. vein
n. one of the tubes which carries blood to the heart from other parts of a body

Cholesterol tends to get built up as excess residue in the arteries and veins of the body.

20. champion
v. to strongly support or defend a person or cause
advocate, back, support
For many years, doctors have *championed* the view that cholesterol is a dangerous substance.

21. **acupuncture**  
*n.* a treatment for pain and disease that involves pushing special needles into parts of the body  

*Two of the most popular forms of alternative therapies in the West today are *acupuncture* and herbal medicine.*

22. **appendage**  
*n.* anything added or attached to a larger or more important part  

*accessory, attachment, addition*  

*The muscles are responsible for the actual, physical movement of our limbs and *appendages.**

23. **artery**  
*n.* one of the tubes that carries blood from the heart to the rest of the body  

*The pulmonary *artery* carries blood from the right side of the heart to the lungs.*

24. **complication**  
*n.* a second disease that arises as a result of an existing one  

*A painful *complication* of diabetes may be caused by an underproduction of a hormone that nourishes and maintains the body’s nervous system.*

25. **microbe**  
*n.* an extremely small living thing that can only be seen under a microscope and that may cause diseases  

*microorganism, germ*  

*When fish populations become depleted due to factors like overfishing, *microbes* such as algae expand...*
and threaten the fragile ecosystems of the ocean.

26. **resin**
n. a thick and sticky liquid that comes out of some trees

*Amber is a hard, yellow-brown substance formed from the *resin* of pine trees that lived millions of years ago.*

27. **saturated**
*adj.* extremely wet; containing as much of a solute as can be dissolved

drenched, soaked

*All fats are combinations of *saturated* and unsaturated fatty acids.*

28. **treble**
v. to become three times as much or as many

triple, threefold

*A baby usually doubles his birth weight at the end of four months and *trebles* it at the end of one year.*

29. **summon**
v. to order someone to come to a place

call, assemble, convene

*Ultrasonic whistles, which cannot be heard by human beings, are audible to dogs and are used to *summon* them.*

30. **helical** cf. helix
*adj.* relating to or like a helix

spiral, coiling, screwlike
Franklin used the technique known as X-ray crystallography to show that DNA has a **helical**, or spiral, shape.
Chapter 12  UNIT 45 Humanities

1. maritime
adj. connected with the sea in relation to navigation; pertaining to the sea
marine, nautical, oceanic

The Native American people of the north Pacific Coast created a highly complex maritime culture.

2. jolly
adj. good-humored; pleasant and enjoyable
joyful, cheerful, merry

The jolly character Falstaff is one of Shakespeare’s finest comic creations.

3. shun
v. to intentionally avoid or keep away from someone or something
avoid, eschew, stay away from

The Shakers were a strict religious group that shunned all types of pleasure.

4. envision
v. to picture mentally some future events
envisage, imagine, visualize

Before hunting, hunters would draw and study migrating animals and envision having a successful hunt.

5. depict
v. to describe something or someone in writing or to show someone or something in a painting
describe, characterize, picture
In their novels, Joel Chandler Harris and Ellen Glasgow depicted life in the South.

6. tremendously
adv. greatly in size, amount, or intensity
enormously, vastly, utterly

During the Great Depression, the economy suffered tremendously.

7. vigorous
adj. strong and active
brisk, dynamic, energetic

The Board of Health took vigorous measures to bring the tenement houses of New York up to the best sanitary condition.

8. vocalize
v. to utter or produce something with the voice
articulate, verbalize, speak

The Malcolm X march has often been used as an outlet to vocalize discontent over the development of Harlem.

9. puzzling
adj. confusing and difficult to understand or explain
baffling, perplexing, bewildering

Sherlock Holmes, a fictional detective, solved many puzzling crimes.

10. usher
v. to escort someone into a place
In 1839, the daguerreotype was introduced to America, **ushering** in the age of photography.

11. complement
   1) v. to make up a lack of something
   2) n. something that completes or perfects another
   1) complete, enhance 2) supplement

   *Movie directors use music to complement the action on the screen.*

12. eerie
   adj. strange and disturbing or frightening
   uncanny, weird, creepy

   *The writer H.P. Lovecraft wrote many eerie stories about the supernatural.*

13. entice
   v. to tempt by arousing hopes or desires or by promising a reward
   seduce, lure, tempt

   *Vance Packard’s book, The Hidden Persuaders deals with the tactics advertisers use to entice consumers.*

14. jargon
   n. the specialized vocabulary of a particular profession
   argot, cant, lingo

   *Technical jargons greatly accelerate changes in usage, often blurring the definitions of words and fracturing the grammatical rules of purists.*
15. **roll back**
*ph.* to return to a lower level of prices, wages, or something else

In 1979, Santa Monica’s municipal government ordered landlords to **roll back** their rents to the levels charged in 1978.

16. **maintenance**
*n.* the process of keeping something in good condition

continuance, persistence

Rental prices promote the efficient **maintenance** of existing housing and stimulate the construction of new housing.

17. **kiln**
*n.* a heated oven or furnace used for drying or for firing something

furnace, oven

More and more large **kilns** were built to create the high-fired stoneware.

18. **carve**
*v.* to cut wood, stone, or something else into a shape

hew, sculpt, engrave

Sculptors use hammers and chisels to **carve** statues out of stone.

19. **rehearse**
*v.* to practice something before performing it in front of an audience

exercise, practice

Musicians have to **rehearse** before performing.
20. **time-wise**
*adv.* with regard to time

*Because the railroad was more efficient and reliable *time-wise*, it quickly became the dominant mode of transportation.*

21. **mythology**
*n.* ancient myths in general

*folklore, lore, stories*

*In the seventh and sixth centuries, potters depicted episodes from *mythology* and ancient Greek heroic narratives.*

22. **deteriorate**
*v.* to grow worse

*worsen, degrade*

*Fired clay does not *deteriorate* over time.*

23. **homage**
*n.* a display of great respect toward someone

*respect, admiration, esteem*

*The priests transcribed their *homage* in Egyptian and Greek using the three prevailing scripts of the day.*

24. **carcass**
*n.* the dead body of an animal

*corpse, remains*

*An important function of early stone tools was to extract highly nutritious food from large animal *carcasses.*
25. **tactics**

*n.* the art or science of disposing military forces for battle

**maneuvers, strategy, plans**

*It is a reflection of the American and Russian commanders’ battle tactics, with the former being more concerned with saving lives.*

26. **cathartic**

*adj.* helping someone to remove strong or violent emotions

**purgative, cleansing**

*Through songs and the oral tradition, slaves were able to be free in a sense, which became cathartic for them.*

27. **logistical**

*adj.* relating to supplies carried by an army

*A great logistical effort was required to support both its own forces and those of many other nations.*

28. **spectacular**

*adj.* impressively striking to see or watch

**dramatic, splendid, sensational**

*D.W. Griffith was the first director of spectacular films. There were movies made on a colossal scale.*

29. **unravel**

*v.* to separate the strands of a knitted fabric; to explain something that is mysterious or complicated

**untwine, untangle, solve**

*The pot’s history, manufacture, cultural context, economic role, and ornamental use are all points of*
information one hopes to unravel.

30. obscure

adj. not clearly understood or expressed

uncertain, confusing, ambiguous

The poetry of Ezra Pound is sometimes difficult to understand because it contains so many obscure references.
1. **preach**
   v. to deliver a sermon as part of a religious service; to talk about something in order to persuade people to accept it
   *evangelize, sermonize, urge*

   *Before the Great Depression, classical economics *preached* the theory of laissez-faire.*

2. **abound**
   v. to present in large numbers
   *teem, overflow*

   *All sorts of fine trees were *abounded*, and those who pushed westward encountered new forests as well.*

3. **accelerate**
   v. to increase the speed of something
   *hasten, quicken, speed*

   *The opening of the Erie Canal in 1825 *accelerated* the development of commerce on the Great Lakes.*

4. **pastoral**
   adj. relating to the countryside or country life
   *rustic, rural, provincial*

   *Some hunters and gatherers continued the old *pastoral* and nomadic ways.*

5. **plush**
   adj. expensively or showily luxurious
   *luxurious, opulent, lavish*
The accommodations were by no means plush.

6. shrewd
adj. possessing or showing keen judgment gained from practical experience
astute, clever, sharp

A shrewd businesswoman, Oprah has inspired trends in the marketplace simply by mentioning a product on the air.

7. stabilize
v. to make or become firm or steady
balance, steady, fix

The International Monetary Fund was created to stabilize exchange rates without interfering with the growth of trade.

8. rejuvenate
v. to make someone feel young again
reinvigorate, renew, revitalize

Music can help to rejuvenate or soothe the patient.

9. vying cf. vie
adj. competing with someone for some gain or advantage
competing, contending, struggling

In the 1880s, five railroads were vying for traffic between New York and Chicago.

10. abolish
v. to put an end to customs, laws, or something else
In 1864, the House resumed the consideration of the constitutional amendment to **abolish** slavery.

11. **precursor**  
*n.* something that comes before another and leads to it  
*forerunner, harbinger, herald*  

The icebox was a **precursor** of the modern refrigerator.

12. **uncanny**  
*adj.* having a supernatural or inexplicable basis; beyond the ordinary  
*supernatural, unnatural, unaccountable*  

Abraham Maslow possessed an **uncanny** intelligence that put him in the company of the greatest social thinkers of the day.

13. **reciprocal**  
*adj.* giving and receiving or given and received  
*mutual, complementary, shared*  

The **reciprocal** relationship ensured that all would have a means of survival.

14. **replicate**  
*v.* to reproduce or copy something exactly  
*copy, duplicate, transcribe*  

Researchers make tools that **replicate** excavated specimens as closely as possible.

15. **revolt**  
1) *v.* to rise up against a government
While infanticide may revolt the vast majority of people, it has its purpose within the animal kingdom.

He observed that individuals whose basic needs had been gratified performed differently from dissatisfied people.

Among some species, males that take over a group of females kill every child sired by the other males.

Political discontent arises when existing political parties fail to give voice to those frustrated by social upheavals.

In addition to his political aspirations, he served as the leader of the Green Mountain Boys.
20. coordinate
v. to integrate and adjust a number of different parts or processes
systematize, organize, harmonize

Political parties help to coordinate the campaigns of their members.

21. union
n. an association, confederation, or group of people united for a common goal; a trade union
alliance, coalition, league

In 1886, many national unions formed the American Federation of Labor under the leadership of Samuel Gompers.

22. autocratic
adj. pertaining to autocracy or exercising power or authority without interference by others
tyrannical, despotic, dictatorial

An autocratic ruler who serves his people well is sometimes called a benevolent dictator.

23. lucid
adj. bright or shining; clearly presented and easily understood
luminous, distinct, clear

Julius Caesar is known for his political skills and for his lucid, informative writing.

24. morale
n. the level of confidence or optimism in a person or group
spirit, confidence, self-esteem

The USO is a service organization that entertains U.S. troops and improves their morale.
25. **substantially**  
*adv.* in real worth, value, or effect  
*actually, practically, virtually*  

The effect of advertising increased **substantially** as ads for products like coffee, tea, and chocolate appeared in newspapers.

26. **dogma**  
*n.* a belief or principle laid down by an authority as unquestionably true  
*creed, doctrine, tenet*  

The experiments with the animals eroded the behaviorist **dogma** that only humans have minds.

27. **endow**  
*v.* to provide a source of income for an organization  
*donate, grant, contribute*  

Massachusetts used much of its funds to **endow** the Massachusetts Institute of Technology.

28. **inevitably**  
*adv.* without possibility of escape  
*inescapably, unavoidably, certainly*  

The focus of educators **inevitably** turned toward the lower grades and back to basic academic skills and discipline.

29. **wharf**  
*n.* a landing-stage built along a waterfront for loading and unloading vessels  
*pier, dock*  

The largest companies have fired many employees, and many of their vessels sit idle at the **wharf**.
30. **arable**

*adj.* suitable or used for plowing and growing crops

*Land refers to all natural resources usable in the production process: arable land, forests, and so on.*
1. *arid*

*adj.* having so little rain as to be very dry and unproductive

desert, dry, torrid

*Southern Arizona has an arid climate, and there are some deserts.*

2. *precipitation*

*n.* water that falls from clouds in the atmosphere to the Earth’s surface

rainfall, shower, downpour

*Deserts are regions that receive less than 25 centimeters of annual precipitation.*

3. *rim*

*n.* the outside edge or border of, especially a round object

edge, brim, border

*The totally eclipsed moon will appear to have a bright rim along its southern edge.*

4. *incinerate*

*v.* to burn or reduce to ashes

burn

*The asteroid impact caused an explosion that quickly expanded as each icy mass incinerated itself.*

5. *inhospitable*

*adj.* not friendly or welcoming to others

unwelcoming, unfriendly, unfavorable
According to the evidence gathered by space probes and astronomers, Mars is an **inhospitable** planet.

6. **intensity**  
   *n.* the quality or state of being intense  
   **power, strength, forcefulness**

The habitable zone is the region 75 to 140 million miles away from a star with the **intensity** of our sun.

7. **lethal**  
   *adj.* causing or enough to cause death  
   **fatal, mortal, deadly**

Mars has no ozone layer to screen out the sun’s **lethal** radiation.

8. **ambient**  
   *adj.* relating to the surrounding area  
   **surrounding**

The report, which was prepared for the Environmental Protection Agency, stated that the level of lead in **ambient** air poses a significant threat to infants.

9. **acidic**  
   *adj.* like, or containing, acid; very sour  
   **sour, tart**

Rain is slightly **acidic** even in unpolluted air.

10. **ominous**  
    *adj.* containing a warning of something evil or bad that will happen  
    **foreboding, sinister**
The black clouds of a gathering thunderstorm look quite ominous.

11. radiation
   *n.* the energy in the form of heat or light that is sent out as waves
   *emission, emanation, diffusion*

   The nuclear chamber continues to smolder and to emit harmful radiation into the air and water.

12. resonance
   *n.* the sound produced in an object by sound of a similar frequency from another object
   *vibration, echo, reverberation*

   The musical tone of an electric guitar is created not by the resonance of the body of the guitar but by electronic amplification.

13. aggression
   *n.* the act or tendency of attacking another person or country without being provoked
   *attack, belligerence, hostility*

   Within this colony, there is little aggression among ants from different nests.

14. speculate
   *v.* to consider the possibilities regarding something
   *postulate, hypothesize, conjecture*

   Experts have speculated that there may have been a cycle of dry and wet seasons.

15. bizarre
   *adj.* weirdly odd or strange
   *odd, peculiar, weird*
What else can be said about the **bizarre** animal that eats mud is that it feeds almost continuously day and night.

16. **carnivore**
   
   *n.* an animal that feeds mainly on the flesh of other animals

   *Our image of dinosaurs is either of massive herbivores like the Brontosaurus or of **carnivores** such as the Tyrannosaurus Rex.*

17. **torque**
   
   *n.* the measured ability of a rotating element to overcome turning resistance

   *While nobody can acquire spin without **torque**, a flexible one, like a cat, can readily change its orientation.*

18. **scale**
   
   1) *v.* to climb up
   2) *n.* an extent or level relative to others
      
      1) **ascend, mount** 2) **range, scope**

   *One of the most popular peaks for mountain climbers to **scale** is El Capitan in Yosemite National Park.*

19. **scavenger**
   
   *n.* a person or animal that searches among waste for usable items or food

   **prowler**

   *Like vultures, condors are **scavengers**, so they eat animals that are already dead.*

20. **blistering**
   
   *adj.* viciously angry and aggressive

   **harsh, critical**
Its climate, despite more than 50 inches of annual rainfall, is **blistering**.

21. **untamed** *cf. tame*

*adj.* undomesticated or uncultivated

**unsubdued, savage, wild**

Hawaii’s variety of **untamed** volcanic ranges and pristine beaches attracts many tourists who enjoy the diverse wilderness.

22. **accessible**

*adj.* able to be reached easily

**approachable, attainable, available**

Rivers also reveal clay along their banks, and erosion on a hillside may make the clay easily **accessible**.

23. **apparatus**

*n.* the equipment needed for a specified purpose

**device, gear, machine**

*Though delicate apparatuses are used, volcanoes have been great mysteries.*

24. **sieve**

1) *n.* a utensil with a meshed or perforated bottom
2) *v.* to strain or sift with a sieve

1) **mesh, net** 2) **filter, screen**

*Clay is far too small to **sieve** accurately.*

25. **scourge**
n. a cause of great suffering and affliction
affliction, misery, plague

With their ability to disseminate numerous seeds quickly, weeds soon became the scourge of the prairies.

26. skim
v. to remove floating matter from the surface of a liquid
cream, scoop, take off

The bubbles rose to the surface with the mineral particles attached, and they were skimmed.

27. trench
n. a long and narrow ditch in the ground
channel, furrow, pit

The trenchers, which are complex machines that dig the trench for the cable, lay it in the correct position and then bury it.

28. thruster
n. a rocket attached to a spacecraft used to control its attitude

In the back of the trencher, it contains ten fan thrusters that propel it through the water.

29. accumulate
v. to collect or gather something in an increasing quantity
amass, stock, pile up

There seem to have been several periods when water accumulated in these basins.

30. homogeneous
adj. made up of elements that are all of the same kind or nature
uniform, consistent, identical

Railroads have made the people of the United States **homogeneous** and have broken through the peculiarities and provincialisms.
1. reorient  cf. orient
v. to set or arrange in a new or different determinate position
modify

Railroads reshaped the North American environment and reoriented North American behavior.

2. deciduous
adj. involving plants which shed all their leaves at a certain time of year

This pest defoliates ornamental trees such as deciduous oaks.

3. expedient
adj. useful or helpful for a purpose
beneficial, effective, practical

He felt that there must be a more expedient way to send messages.

4. stake
1) n. an interest, especially a financial one
2) n. a sum of money risked in betting
1) interest, share 2) bet

Holding a large stake in the community, nineteenth-century American hotelkeepers exercised power to make it prosper.

5. adverse
adj. going against; unfavorable to one’s interests
contrary, negative, hostile
Penicillin can have an **adverse** effect on a person who is allergic to it.

6. **replenish**

   *v. to fill up or make complete again*

   *refill, restock, restore*

   *There is no easy source of hydrogen to replenish the supply.*

7. **resilient**

   *adj. able to recover quickly*

   *elastic, flexible, springy*

   *By ridding the ocean of weaker fish, predators allow the stronger ones to multiply, making their species more resilient.*

8. **sanctuary**

   1) *n. a holy or sacred place, like a church or temple*
   2) *n. an area for birds or animals where they cannot be hunted*

   1) *sanctum, shrine* 2) *reservation*

   *The designation of a marine sanctuary indicates that it is a protected area, just as a national park is.*

9. **sedentary**

   *adj. involving much sitting; not moving from one place to another*

   *seated, stationary, unmoving*

   *Aphids are particularly vulnerable to predators because of their gregarious habits and sedentary nature.*

10. **stagnant**
not flowing; not developing or growing

**motionless, standing, stale**

A cupful of **stagnant** water may contain millions of microorganisms.

11. **suffocate**

*v. to kill or be killed by a lack of air*

**choke, stifle**

*If the bacteria are not kept in check, they could **suffocate** the oceans.*

12. **nemesis**

*n. a person or thing that causes serious harm as punishment*

**enemy, foe, rival**

*He believed AIDS is our collective **nemesis**.*

13. **hatch**

*v. to break out of an egg; to produce young animals from eggs*

**breed, incubate, brood**

*Female sea turtles swim as much as 2,000 kilometers to return to the beaches where they were **hatched**.*

14. **surrender**

*v. to admit defeat by giving oneself up to an enemy*

**give up, concede, yield**

*The military was charged with defending the nation’s forests and had orders to kill illegal loggers who did not **surrender**.*
15. **symbiotic**
*adj.* relating to a relationship in which organisms, people, or living things involved depend on each other

A *symbiotic* relationship is when two organisms of different species “work together” and each benefit from the relationship.

16. **glucose**
*n.* a natural form of sugar found in fruit and used in the body

*Glucose* does not have to be digested, so it can be put directly into the bloodstream.

17. **prosthetic**
*adj.* relating to a device that substitutes for or supplements a missing or defective part of the body

A *prosthetic* leg enables a person to function without the assistance of a wheelchair or crutches.

18. **amnesia**
*n.* a loss of memory, either in part or completely

*forgetfulness*

In cases of a minor injury to the brain, *amnesia* is likely to be a temporary condition.

19. **analgesic**
*n.* a remedy that relieves or allays pain

*painkiller*

*Analgesics* are used to relieve pain and reduce fever.

20. **antibiotic**
*n.* a substance like penicillin which is used in the treatment of bacterial infections
Fungi are the source of many of the most potent antibiotics used in clinical medicine, including penicillin.

21. **hynpasis**
n. an induced sleeplike state in which a person is deeply relaxed

**hypnotism, mesmerism**

*Hypnosis* is sometimes employed as a means of helping people to quit smoking.

22. **insomnia**
n. a condition where the individual has trouble falling asleep or wakes up repeatedly during the night

**sleeplessness, wakefulness**

The causes of *insomnia* are usually psychological in the form of stress, depression, and too much worrying.

23. **terminology**
n. the words and phrases used in a particular subject or field

**jargon, lingo, argot**

In very loose *terminology*, the right hemisphere of the brain controls the left side of the body.

24. **ulcer**
n. a sore place appearing on the skin inside or outside the body which may bleed or produce poisonous matter

**sore, abscess, canker**

People with ulcers must eat bland foods.

25. **secrete**
v. to form and release a substance
release, ooze, exude

Pheromones are secreted to the outside of the body and cause other individuals to have specific reactions.

26. volatility

n. the property of changing readily from a solid or liquid to a vapor

The chemical signal can be persistent depending upon the volatility of the chemical.

27. weld

v. to join two pieces of metal; to unite something together firmly

join, unite, combine

There are two gas tanks connected to the welding equipment; one is full of oxygen, and the other is full of acetylene.

28. streamlined

adj. designed to offer the least possible resistance; optimally shaped

hydrodynamic, aerodynamic, efficient

The challenge is to build a wing streamlined enough to fly at high speeds for long distances.

29. revolutionize

v. to bring about revolution; to change dramatically

Iron production was revolutionized in the early eighteenth century when coke was first used instead of charcoal for refining iron ore.

30. serene

adj. calm and composed
The architects emphasized the need for natural, serene settings where hurried urban dwellers could periodically escape from the city.
Chapter 13  UNIT 49 Humanities

1. subsidize
v. to provide or support with a subsidy
finance, fund, sponsor

One award subsidizes a promising American writer’s visit to Rome.

2. utter
1) adj. having no exceptions or restrictions
2) v. to express a thought or emotion in words
1) complete, thorough 2) state

This movie illustrates people’s utter helplessness in the face of machines meant to serve their basic needs.

3. article
1) n. an object
2) n. a short written composition in a newspaper
1) item 2) essay, report

The Pomo people used four distinct variations on the basic twining process, often employing more than one of them in a single article.

4. convergence
n. the coming together of two or more things to the same point
confluence, conjunction, meeting

From this unity created by the convergence of artists from various social and geographical backgrounds came a new spirit.
5. **hilarious**

*adj.* very funny or humorous

*amusing, comical, merry*

Shirley Jackson’s sometimes chilling, sometimes **hilarious** stories were largely ignored by critics when they were published.

6. **jester**

*n.* a colorfully-dressed professional clown

*clown, joker*

This funny costume reminds you of a **jester** or even a woman.

7. **puppet**

*n.* a type of doll that can be operated by strings or sticks

*marionette*

Music based on Indonesian music was used in the shadow **puppet** theater of that region.

8. **memoir**

*n.* a record of events written by a person having knowledge of them

*biography, life, reminiscence*

A **memoir** is restricted in scope, and it is usually shorter than an autobiography.

9. **obscenity**  *cf.* **obscene**

*n.* the state or quality of being obscene

*bawdiness, vulgarity, filthiness*

Also influential was a novel by Williams S. Burroughs, *Naked Lunch*, which also survived an **obscenity** trial.
10. **prosaic**

*adj.* not poetic; boring or ordinary

**unimaginative, common, routine**

*For babies, language is a sensory-motor delight rather than the route to* **prosaic** *meaning that it often is for adults.*

11. **auditory**

*adj.* referring to hearing or the organs involved in hearing

**acoustic, aural, auricular**

*Babies’ responses to the sound of the human voice are different from their responses to other sorts of* **auditory** *stimuli.*

12. **utensil**

*n.* an implement or tool, especially one for everyday or domestic use

**tool, implement, device**

*The fork has been used as an eating* **utensil** *at least since the twelfth century.*

13. **cumbersome**

*adj.* difficult to use or operate, especially because of size, weight, or design

**awkward, clumsy, unhandy**

*As a part of a* **cumbersome** *process, a pit was dug, and a platform was set up across it.*

14. **strategic**

*adj.* done as a part of a plan, especially in a military or business

**tactical**
Another area to take into consideration was the *strategic* bombing campaign.

15. **coarse**
adj. of low quality; not having a level or smooth surface
*crude, inferior, rough*

*The Egyptians made coarse fibers by 1600 B.C., and fibers survived as decorations on Egyptian pottery dating back to 1375 B.C.*

16. **infiltrate**
v. to filter something like a liquid; to pass into a territory
*insinuate, permeate, sneak*

*Using the cover of darkness, the soldiers infiltrated the enemy’s defenses.*

17. **niche**
n. a shallow recess suitable for a thing; a position in life in which one feels fulfilled
*alcove, hollow, place*

*The archaeological site contained niches for ceremonial objects and a central fire pit.*

18. **eccentricity**
n. an odd or peculiar habit
*unusualness, strangeness, peculiarity*

*Playwright Oscar Wilde distinguished himself for his wit and eccentricity in dress, taste, and manners.*

19. **rote**
n. the mechanical use of the memory to perform something without thinking
*memory*
John Dewey strongly believed that children should not be taught by **rote**.

20. **shard**  
   *n.* a fragment of something brittle  
   *chip, fragment, piece*

   By digging up different *shards* from different stratum layers, archaeologists can easily date the stages of a culture’s development.

21. **chronicle**  
   *v.* to record historical events in the order in which they occurred  
   *record, list, document*

   The book vividly **chronicled** the writer’s struggle to overcome alcoholism.

22. **libation**  
   *n.* a liquid suitable for drinking; the pouring of wine or something else in honor of a god  
   *drink*

   Large quantities of food and **libations** are consumed during the festivities.

23. **figurine**  
   *n.* a small carved or molded figure  
   *figure, statuette*

   At the archaeological site, there were many poor-quality **figurines** and painted pots produced in quantity by easy, inexpensive means.

24. **conventional**  
   *adj.* conforming to established practice or accepted standards  
   *customary, traditional, ordinary*
The European influences on jazz can be heard in its use of such conventional instruments as the trumpet, string bass, and piano.

25. **betray**
   v. to be disloyal or unfaithful to
   **sell out, let down, fail**

Arthur Miller’s masterpiece, *Death of Salesman*, is the tragic story of a salesman betrayed by his own hollow values.

26. **sentiment**
   n. a subjective response to a person, thing, or situation
   **feeling, emotion**

Modern Times does accurately reflect the sentiments of many who feel they are victims of an over-mechanized world.

27. **dilapidated**
   adj. falling to pieces because of neglect or age; in great need of repair
   **ruined, destroyed, broken-down**

These painters usually chose subjects that were interesting only because they were so ordinary; a closed-down gas station, an old man waiting for a bus, a dilapidated billboard.

28. **aviation**
   n. the science of mechanical flight through the air; the industry that makes aircraft
   **aeronautics**

Charles Lindbergh’s first transatlantic flight opened a whole new world of possibilities for aviation, especially commercial aviation.
29. **pluck**
v. to pull out something with one’s fingers; to sound the strings of a violin or something else using the fingers
**pick, extract, draw out**

The harp is a stringed musical instrument of ancient origin, and its strings are **plucked** by the fingers.

30. **decode**  cf. **encode**
v. to translate a coded message into ordinary language
**decipher, interpret**

In order to **decode** Egyptian numerals, long stretches of symbol groupings had to be sorted out and added together.
Chapter 13  UNIT 50 Social Sciences

1. pivotal
adj. constructed as or acting like a pivot; crucially important
central, vital, crucial

The development of steam engines played a pivotal role in the spread of the factory system.

2. barter
1) n. a trade by exchanging goods rather than by selling them for money
2) v. to trade or exchange goods or services without using money
1) trade 2) exchange, bargain

Before currency came into use, people used the barter system to exchange goods directly for goods.

3. lay off
ph. to stop employing someone because there is no work for that person to do
dismiss, sack

The Brindley Corporation had to lay off ten percent of its employees due to decreased sales.

4. reprieve
n. a delay or cancellation of someone’s punishment
postponement, suspension

To farmers, factories offered a reprieve from the backbreaking work and financial unpredictability associated with farming.

5. juggernaut
n. a mighty force sweeping away and destroying everything in its path
They were the **juggernauts** of the sky and by far the largest commercial planes of their day.

6. **per capita**  
*ph.* by or for each individual person  
**per head, per each person**

*Fifteen hundred dollars a year was the* **per capita** *income in the United States in 1950.*

7. **arduous**  
*adj.* needing a lot of work, effort, or energy  
**hard, laborious, exhausting**

*Mountain climbing is an* **arduous** *sport.*

8. **frivolous**  
*adj.* not sufficiently serious; silly or amusing  
**insignificant, trivial, childish**

*He was frustrated because his boss assigned him some* **frivolous** *work.*

9. **consistent**  
*adj.* in agreement with something; in keeping with something  
**conforming, accordant, constant**

*Decades of research have failed to produce* **consistent** *evidence.*

10. **subdue**  
*v.* to overpower and bring under control; to reduce in intensity  
**conquer, suppress, quell**
Policemen armed with riot shields and batons were called in to subdue the angry soccer fans.

11. patent
1) n. a sole right to make and sell a particular article
2) v. to obtain a patent for an invention

Barbed wire, first patented in the United States in 1867, played an important part in the development of American farming.

12. strain
n. a type of animal, plant, or disease
family, bloodline, race

The second strain was the pneumonic plague, which was probably a mutation of the bubonic plague.

13. abortion
n. the deliberate ending of a pregnancy at an early stage
termination

In some societies like China, with its one-child policy, the preference for sons is a driving reason for abortion.

14. census
n. an official count of a population carried out at periodic intervals
poll

The United States census for 1970 showed that the French-speaking residents of Louisiana were one of the country’s most compact regional linguistic minorities.

15. locale
n. the scene of some event or occurrence
The information on the alarm pertained to the locale in which it would be used.

16. **ovulate**  
v. to release an ovum or egg cell from the ovary

*During estrus, a female is ovulating and can become pregnant.*

17. **put down**  
1) *ph.* to criticize someone to make that person feel silly  
2) *ph.* to stop a revolution or something else by using force  
1) **belittle, insult** 2) **overpower, suppress**

*The leaders put down a rebellion in their country by appeasing the different groups.*

18. **falter**  
v. to move unsteadily; to become weaker  
**totter, stumble, weaken**

*After starting out in the lead, he began to falter near the finish line.*

19. **federal**  
*adj.* belonging to a country consisting of a group of states

*The federal system of government in Canada is similar to that of the United States.*

20. **electorate**  
n. all the people in a city or country who have the right to vote

*The British Reform Bill of 1867 more than doubled the electorate by granting the right to vote to*
common working men.

21. **hierarchical**

*adj.* classified according to various criteria into successive levels or layers

*Because of the fierceness of their army and their hierarchical organization, they became the largest Native American society.*

22. **amendment**

*n.* a small change or improvement that is made to a law or a document

*correction, alteration*

*The first ten amendments to the Constitution are known as the Bill of Rights.*

23. **ammunition**

*n.* bullets, shells, bombs, or something else made to be fired from a weapon

*Many of the Frenchmen had provided all sorts of things, from food to ammunition, for the Indians.*

24. **bladder**

*n.* a hollow sac-shaped organ in which liquid waste is stored before it is passed out of the body

*vesica*

*Your bowels and bladder prepare to empty their contents because, if they experience an injury, their contents could infect your body.*

25. **ruthless**

*adj.* having or showing a lack of sympathy or tender feeling; hard and cruel

*relentless, pitiless, merciless*

*The pirate Blackbeard had a reputation for being a harsh, ruthless man.*
26. **incest**
n. sexual intercourse between closely related people

While virtually all cultures have rules prohibiting **incest**, the definition of what constitutes incest fluctuates widely.

27. **inaugural**
adj. coming before all others in time or order; relating to a ceremony that officially marks the beginning of something

initial, introductory, maiden

On the **inaugural** flight of the Dixie Clipper across the Atlantic, twenty-two passengers enjoyed a main sitting area equipped with plush sofas.

28. **soothe**
v. to bring relief from pain or something else

comfort, calm, mitigate

Food, drink, and celebration after the group work provided relaxation and **soothed** weary muscles.

29. **interdisciplinary**
adj. involving two or more subjects of study

Cognitive science is an **interdisciplinary** field of research that employs psychology, linguistics, and biology.

30. **dignify**
v. to make something impressive or dignified

enoble, glorify, exalt
Agriculture was not even considered a science until it was dignified by the work of research stations.
1. **hexagonal**  
   cf. **hexagon**  
   *adj.* having a plane figure with six sides and angles

   *Simple snowflakes possess a variety of beautiful forms, most of which are* **hexagonal**.

2. **torrential**  
   *adj.* caused by or like a torrent; falling in large amounts  
   **rushing, streaming, violent**

   *The* **torrential** *rains and heavy winds the hurricane brought are contributing to its storm surge.*

3. **luminous**  
   *adj.* full of or giving out light  
   **bright, shining, glowing**

   *The most* **luminous** *objects seen by telescopes are probably ten thousand million light years away.*

4. **spiral**  
   *adj.* moving in a continuous curve that winds around a central point  
   **coiled, helical, screw**

   *The Milky Way is a* **spiral** *galaxy, a flattish disc of stars with two spiral arms emerging from its central nucleus.*

5. **tentacle**  
   *n.* long and thin appendages which are used as sense organs

   *Giant squid have eight short arms and two long* **tentacles**.
6. **sinuous**

*adj.* marked by a long series of irregular curves

*curving, twisting, winding*

*The large circular maria were seen as strange, and sinuous features were observed in the maria.*

7. **rupture**

*v.* to be broken or to burst apart; to burst or break apart something

*break, split, breach*

*This change in the volume of air may cause the lungs to distend and even to rupture.*

8. **tension**

1) *n.* a feeling of anxiety and stress that makes it impossible to relax

2) *n.* the state of being stretched tight

1) nervousness, distress 2) strain, pressure

*As water is lost from the surface of the leaves, a negative pressure or tension is created on it.*

9. **translucent**

*adj.* allowing light to pass diffusely

*semi-transparent, see-through*

*One cannot see through translucent materials, but light can pass through them.*

10. **borealis**

*n.* a luminous display of colors in the night sky of the Northern Hemisphere

*It is almost impossible to capture the beauty of the aurora borealis in photographs.*
11. reactor

*n.* a large structure used for the controlled production of nuclear energy

*In late April 1986, the number four reactor at the Chernobyl nuclear power plant exploded.*

12. oval

*adj.* with the outline of an egg or shaped like an egg

egg-shaped, ovoid, elliptical

*The pear tree has simple, oval leaves that are smoother and shinier than those of the apple.*

13. gyration

*n.* a rapid turning about on an axis or central point

whirl, rotation, spin

*The gyrations of the cat in midair are too fast for the human eye to follow, so the process is obscured.*

14. anomaly

*n.* something that is unusual or different from what is expected

abnormality, freak, exception

*If we stand above nature and if technology is all powerful, then AIDS is a horrifying anomaly that must be trying to tell us something.*

15. antler

*n.* either of a pair of solid bony outgrowths on the head of an animal

*Deer use their antlers chiefly to fight for mates or for leadership of a herd.*

16. epidermis
n. the outer layer of skin

skin

The external surfaces of plants, in addition to being covered by an epidermis and a waxy cuticle, often carry spiky hairs.

17. conifer

n. a tree with narrow needle-like leaves and which produce pollen and seeds in cones

The conifer, which is among the tallest trees, has an unusually low root pressure.

18. pique

v. to hurt someone’s pride; to arouse curiosity or interest
annoy, offend, intrigue

Although this impact event was of considerable scientific important, it especially piqued the public’s curiosity and interest.

19. phosphorescent

adj. producing a faint light in the dark; luminous without sensible heat
light, radiant, luminous

Fish living in complete darkness at the bottom of deep-sea trenches have evolved incredibly sensitive eyes and phosphorescent organs.

20. vascular

adj. relating to the blood vessels of animals or the sap-conducting tissues of plants

Club mosses, considered to be advanced because they are vascular, often inhabit moist places.

21. pollinate
Some honeybees are raised for their ability to **pollinate**, which ensures plant fertilization that increases fruit yields.

22. **unfurl**

v. to spread out or unroll something from a rolled-up state

spread, unfold, open

The water **unfurls** in the sunlight with the colors of the rainbow playing across it.

23. **aquifer**

n. an area of rock underneath the surface of the Earth that absorbs and holds water

The first condition for a geyser’s eruption is that water must be contained in an **aquifer**.

24. **cartographer**

n. a person who makes charts or maps

mapmaker

The task of a **cartographer** is to represent the Earth’s surface at a greatly reduced scale.

25. **fault**

n. a break or crack in the Earth’s crust resulting in the slippage of a rock mass

slip

The original architects of the University of California at Berkeley built the campus directly on top of a **fault**.

26. **parole**
n. the release before the end of one’s sentence on the promise of good behavior

GPS is even used to keep track of criminals on day leave or parole.

27. **ensue**

_v._ to happen after or as a result of another event

follow

_In 1906, much of San Francisco was destroyed by an earthquake and the fires that ensued._

28. **impending**

_adj._ being soon to appear or take place

imminent, approaching, nearing

_Even with our improved ability to identify hazardous areas and to warn of impending eruptions, increasing numbers of people face certain danger._

29. **overcast**

_adj._ covered by clouds

cloudy, gloomy, dark

_Because ultraviolet light from the sun can penetrate clouds, it is possible to get a sunburn on an overcast day._

30. **gauge**

_n._ a standard against which things are measured; an instrument used to measure a quantity

yardstick, measure, indicator

_The gauge known as potential evaporation totals the water lost through both normal evaporation and the evaporation that occurs from plant life._
1. **minuscule**
   *adj.* extremely small
   *minute, tiny*

   *In order to build his dream, he borrowed $50 million, which sounds* minuscule *by today’s standards.*

2. **ledge**
   *n.* a narrow horizontal shelf or shelf-like part
   *shelf, projection, overhang*

   *Two* ledges *were built across from each other on the inside of the chimney.*

3. **tendon**
   *n.* a cord of strong fibrous tissue that joins a muscle to a bone

   *Muscle fibers are attached bones by* tendons.*

4. **electron**
   *n.* a particle which has a negative electric charge in atoms

   *The proton has a positive charge, and the* electron *has a negative charge.*

5. **scaffolding**
   *n.* a temporary framework of metal poles and planks
   *frame, rack*

   *Construction workers have begun dismantling the* scaffolding *that has encased the Guggenheim Museum for nearly three years.*
6. terrestrial
adj. relating to the land or to the Earth
earthly, earthbound

Much has been written about the diversity of terrestrial organisms.

7. thwart
v. to prevent or hinder someone or something
impede, obstruct, block

Ocean predators play a critical role by thwarting bacteria growth and maintaining the oceans’ equilibrium by reducing vulnerable links in the food chain.

8. parched
adj. dried up; slightly roasted
dry, torrid, burned

According to one of the scientists, most parched trees transmit their plight in the 50- and 500-kilohertz range.

9. saline
adj. containing sodium chloride or salt
briny, salty

When the saline water table rises to within two meters of the surface, evaporation concentrates salt at the surface.

10. seemingly
adv. in appearance
apparently, ostensibly, superficially
Why did the huge, seemingly successful mammoths disappear?

11. **bog**  
*n.* an area of low and wet muddy ground that sometimes contains bushes or grasses  
marsh, swamp, fen

Many animals became trapped in **bogs** overgrown by vegetation.

12. **propagation**  
*n.* multiplication by natural reproduction; dissemination  
proliferation, generation, spread

Our problems do not stem from evaporated water supplies but from a **propagation** of carbon dioxide and other greenhouse gases due to industrial and automobile emissions.

13. **groom**  
*v.* to clean the fur or skin of another animal or itself  
dress, neaten up, tidy up

Monkeys are highly social animals. A good example of this is the fact that they **groom** one another.

14. **cetacean**  
*n.* an animal belonging to the order which includes dolphins, porpoises, and whales

It is widely believed that **cetaceans** are highly intelligent.

15. **antigen**  
*n.* a foreign substance that stimulates the body’s immune system to produce antibodies

*Each blood cell has an antigen,* a kind of protein,* on its surface.*
16. **capillary**
*adj.* having a very small diameter; relating to capillarity

**hair-like**

*Oxygen and nutrients reach the body’s tissues by passing from the blood through the capillary wall.*

17. **canine**
*n.* one of the long, sharp, and pointed teeth in front of a human’s or animal’s mouth

**cuspid, dogtooth**

*The front teeth are used to bite food, the canines to tear it, and the molars to grind it.*

18. **incisor**
*n.* one of the eight sharp teeth at the front of the mouth and which are used for biting

**front tooth, fore-tooth**

*A baby’s first teeth to appear are generally the lower incisors.*

19. **diaphragm**
*n.* the layer of muscle between the lungs and the stomach and which is used especially to control breathing

*The power required for breathing comes from the intercostal muscles and the diaphragm.*

20. **iris**
*n.* the colored part of the eye that controls the opening and closing of the pupil

*The iris is basically the aperture of the eye, which is similar to that of a camera.*

21. **neurosis**
n. a mental disorder that causes obsessive fears and unreasonable behavior
nervous breakdown

A psychosis is a severe mental disorder that is more serious than a neurosis.

22. pneumonia
n. an inflammation of the lungs, usually as a result of bacterial or viral infection

The symptoms of pneumonia, a lung infection, include high fever, chest pains, breathing difficulty, and coughing.

23. pupil
n. the dark and circular opening in the center of the iris

The pupil regulates the amount of light allowed into the eye.

24. paralysis
n. a temporary or permanent loss of muscular function or sensation
numbness, palsy

Although complete paralysis is rare with neuritis, it is common for some muscles to become weak.

25. arthritis
n. a disease that causes pain and swelling in one or more joints of the body

Isadora Martinez invented a knee implant that lets people with arthritis bend their knees easily.

26. viable
adj. capable of being done or carried out
feasible, possible, practical
During the nineteenth century, further advances were made, notably Bessemer’s process for converting iron into steel, which made the material more commercially viable.

27. **carbohydrate**
   *n.* a group of organic compounds which consist of carbon, hydrogen, and oxygen

*Carbohydrates* such as sugar or starches are important energy sources for humans and animals.

28. **viscosity**
   *n.* the degree to which a fluid can resist flowing

**cohesion**

*Viscosity* is a measurement describing the relative difficulty or easiness with which liquids flow.

29. **pavilion**
   *n.* a large and elaborate tent; a large ornamental building

*The Liberty Bell, formerly housed in Independence Hall, was moved to a separate glass pavilion in 1976.*

30. **prodigy**
   *n.* a child of extraordinary brilliance; something extraordinary or surprising

**genius, wonder, marvel**

*Edison has been referred to as a child prodigy since he began working on his first inventions at the age of twelve.*
1. caliber

*caliber*  
*n. the level of quality or ability that someone or something has achieved*  
*talent, capacity, merit*  

*The actors may be of the highest *caliber* or simply part-time novices.*

2. cardinal

*cardinal*  
*adj. highly important; having other things based on something*  
*essential, main, principal*  

*A *cardinal* rule for players of the lute, a stringed instrument, is that every note is sustained for as long as possible.*

3. hiss

*hiss*  
*n. a sound like a long ‘s’; unwanted background noise in a sound system*  
*sibilance*  

*Environmental sounds and electrically generated *hisses* can be incorporated into a musical composition.*

4. luminosity

*luminosity*  
*n. the property of emitting light*  
*radiance, glow, splendor*  

*His paintings show the same *luminosity* and attention to detail that the works of the Dutch masters show.*

5. lurid
adj. too bright in color; arousing a strong and superficial interest or emotional reaction
flaming, sensational, startling

Paperback novels in the 1940s often had lurid covers to attract readers’ attention.

6. choreography
n. the arrangement of the pattern of movements in dancing

It was around 1925 that an accurate, convenient system for recording the choreography of ballet was developed.

7. punctuality
n. the quality or habit of arriving on time
promptness, timeliness

You will no doubt meet people with varying attitudes towards punctuality.

8. babble
v. to talk or say something quickly
prattle, chatter, jabber

Between four months and eight months, infants begin to babble meaningless syllables.

9. cliché
n. a phrase which has become stale and hackneyed through overuse
trite saying, banality

Some of the American expressions are so common they have become clichés; “Time is money,” “Time waits for no one,” and so on.

10. sprout
v. to develop a new growth of leaves, hair, or something else
*come up, bud, germinate*

*Thanks to the steamboat, numerous towns and industries began to *sprout* up along the rivers.*

11. **supplement**
n. something that is added to make something else complete
*addition, annex, accessory*

*Wagon freighting, stage coaching and steamboating became *supplements* of feeders for the first train.*

12. **treacherous**
adj. not to be trusted; ready or likely to betray
*unreliable, faithless, disloyal*

*The early slave songs provided them with a kind of spiritual escape from the *treacherous* bonds of slavery.*

13. **discretion**
n. the right to make decisions; the quality of behaving in a discreet way
*volition, discernment, discrimination*

*Establishing monuments is at the president’s *discretion.**

14. **feudal** *cf. feudalism*
adj. relating to the feudal structure that was used in medieval Europe

*Although based on *feudal* models, the colony of Pennsylvania developed a reputation for a progressive political and social outlook.*

15. **mutiny**
n. a rebellion or an act of rebellion; open fighting against authority
rebellion, revolt, uprising

The mutiny of a ship’s crew signifies the breakdown of obedience and discipline.

16. detectable  cf. detect
adj. able to be noticed or discovered
perceptible, observable, discernible

The fact that DNA in detectable amounts has survived for 40,000 years has given scientists hope that genetic material of other long-vanished species may be found.

17. limbo
n. an area between heaven and hell

The natives believe that only through a funeral are they able to break the limbo of their dead family member.

18. hominid
n. a primate belonging to the family of modern man and his ancient ancestors human

A great deal can be learned from the actual footprints of early hominids.

19. vault
n. an underground burial chamber
crypt, catacomb

The body is placed in a horizontal vault and enclosed with stone or wood.

20. freakish
A trumpeter of **freakish** gift, Louis Armstrong will be remembered as the most influential jazz musician of all time.

21. **characterize**

v. to describe something; to be a typical feature of something

depict, label, mark

*Her works can not be characterized in a few words.*

22. **glorify**

v. to make someone or something seem more important or beautiful than he, she, or it really is

exalt, dignify, ennoble

*The art did not glorify any specific rulers.*

23. **delineate**

v. to describe, draw, or explain something in detail

describe, outline, portray

*The regional novel delineates the lives of people in a particular place to demonstrate how an environment influences its inhabitants.*

24. **embark (on)**

v. to begin a task, especially a lengthy one

commence, launch, start

*The Dadaists embarked on their crusade by trying to shock the public by constructing offensive or outrageous works of art and literature.*
25. rekindle
v. to relight a fire; to revive or renew something
restore, revitalize, renew

In 1912, O’Keeffe’s creative spark was **rekindled** when she attended an art class at the University of Virginia summer school.

26. relegate
v. to move someone down to a lower grade
banish, exile, demote

The show was hounded off the legitimate stage and found itself **relegated** to saloons and barrooms.

27. come of age  cf. constant
*ph.* to become established and accepted

Colonial coppersmithing also **came of age** in the early eighteenth century and prospered in northern cities.

28. in regards to
*ph.* with regard to; regarding or about
as regards, in respect of

Pay particular attention to details, especially **in regards to** Poe’s work, because they are there for a reason.

29. impostor
*n.* someone who pretends to be someone else in order to deceive others
pretender, deceiver, trickster

The character looks very much like a fool or even an **impostor**; that is, he might have wealth, but,
essentially, he is a clown, a fake.

30. **lyrics**

*n. the words of a song*  
*libretto, book, words*

*Louis Armstrong was one of the first musicians to sing in the scat style, using rhythmic nonsense syllables instead of **lyrics**.*
Chapter 14  UNIT 54 Social Sciences

1. **spearhead**
   v. to lead a movement, campaign, attack, or something else
   lead, initiate, pioneer

   Taylor was an American engineer who **spearheaded** the Efficiency Movement at the beginning of the 20th century.

2. **haul**
   v. to pull with great effort or difficulty
   drag, draw, tow

   Farm women had to **haul** large quantities of water into the house from wells or pumps for every purpose.

3. **arithmetic**
   n. the branch of mathematics that uses numbers to solve problems
   calculation, computation

   Reading, writing, and **arithmetic** were the basics of an elementary school education.

4. **encyclopedia**
   n. a reference containing information on every branch of knowledge

   Publishers of **encyclopedias** employed hundreds of specialists and large editorial staffs.

5. **protocol**
   n. the version of an agreement; correct, formal, or diplomatic etiquette or procedure
   treaty, manners, convention
This endless repetition, combined with strict schedules and office protocol, has a very wearing effect on workers.

6. hinge on
ph. to be dependent or contingent on, or as if on a hinge
depend on, rely on, turn to

Industrial growth hinged on several economic factors.

7. lathe
n. a machine tool used to cut, drill, or polish a piece of metal

Until the late 1700s, metal could not be turned on a lathe to make it uniformly smooth and round.

8. subsist
v. to live or to manage to stay alive
exist, live, survive

Many prehistoric people subsisted as hunters and gathers.

9. heading
n. a word or series of words, often in larger letters, placed at the beginning of a passage in order to introduce or categorize
headline, rubric, title

The work of a factory worker and an office worker falls under the general heading of labor.

10. disseminate
v. to make something be widely circulated or diffused
disperse, spread, dissipate
Hollywood disseminated an image of the good life in Southern California on screens all across the nation.

11. **windfall**
   *n.* a fruit, especially an apple, blown down from its tree; an unexpected fortune
   *jackpot, bonanza, lucky strike*

The South received great financial **windfalls** from its agricultural produce.

12. **linger**
   *v.* to remain for a long time
   *remain, stay, loiter*

Some people like to **linger** after dinner over coffee and dessert.

13. **ideology**
   *n.* the body of ideas which forms the basis for a social system
   *beliefs, doctrine, philosophy*

The farmers’ distrust of a city was caused, in part, by a national **ideology** that proclaimed farming the greatest occupation and rural living superior to urban living.

14. **litter**
   *n.* a number of animals born to the same mother at the same time
   *offspring, young, brood*

Many animal species produce large **litters** at birth.

15. **puberty**
   *n.* the stage of change in the human body from childhood to the adult state
Adolescence is a transitional stage in human development from the beginning of puberty to the attainment of the emotional, social, and physical maturity of adulthood.

16. chaos
n. a state of utter confusion or disorder
disorder, pandemonium, turmoil

These new urbanities eagerly embraced the progressive reforms that promised to bring order out of the chaos of the city.

17. institution
n. a public body founded for a special purpose; a custom or tradition
establishment, foundation, practice

The institution of slavery has been a part of human history for thousands of years.

18. gullible
adj. easily tricked or fooled
innocent, naive, unwary

Con artists are criminals who take advantage of gullible people by tricking them and taking their money.

19. pending
adj. waiting to be decided or dealt with
impending, undecided

The pending plan for the improvement of New York Harbor was discussed at a conference, but, unfortunately, it was not agreed to.
20. **ravage**  
* v. to cause extensive damage to a place  
* **demolish, destroy, raze**  

*The country currently is being *ravaged* by ancient religious conflicts.*

21. **epithet**  
* n. a word applied to a person or thing to describe an actual quality  
* **nickname, label, tag**  

*Even the name is an *epithet*, a synonym for the stunted, the scruffy, and the insignificant.*

22. **cabinet**  
* n. an executive policy-making body made up of senior ministers  
* **council, ministry**  

*In the United States, the attorney general is the *cabinet* member in charge of the administration of the Department of Justice.*

23. **credential**  
* n. the personal qualifications that can be quoted as evidence of one’s competence  
* **identification, reference, license**  

*Whatever their opinion of Mr. Jelks was, he had very impressive *credentials.*

24. **isolationism**  
* n. the policy of not joining with other countries in international affairs  

*A whole movement, known as *isolationism*, which called for America to remain out of world affairs unless threatened directly, grew.*
25. arena
n. a playing field where sporting events take place; a place of great activity
stadium, theater

In foreign affairs, he led the United States into the arena of international power politics, thrusting aside the American tradition of isolationism.

26. bowels
n. an intestine, especially the large intestine in humans
intestines, guts, innards

An estimated one in five Americans suffers from irritable bowel syndrome, a disorder that can cause disabling cramping, constipation, and diarrhea.

27. variable
n. a factor which may change or be changed by another

A worksheet can be especially useful when the decision involves a large number of variables with complex relationships.

28. exaltation
n. the act of exalting or raising high
elevation, glory, praise

The Second Chicago School adhered to neoclassical economics and rejected the Keynesian exaltation of government regulation.

29. cost-effective
adj. giving an acceptable financial return in relation to the initial outlay
profitable, economical, worthwhile
Pamphlets and chapbooks could be printed in large, cost-effective editions and sold cheaply.

30. territory

n. an area of land, especially considered with regard to the government that owns or controls it

land, area, domain

Canada, which has a small population, covers slightly more territory than the United States does.
1. **concentric**
   *adj.* having a common center

   The planets in our solar system are arrayed on nearly the same flat plane, with their orbits forming roughly **concentric** ellipses around the sun.

2. **wisp**
   *n.* a thin and fine tuft or shred; a thin or delicate untidy piece
   *bit, tuft, snippet*

   Daytime temperatures may reach above freezing, but because the planet is blanketed by the mere **wisp** of an atmosphere, the heat radiates back into space.

3. **eclipse**
   1) *v.* to cause an eclipse of a heavenly body
   2) *v.* to surpass or to outshine
   1) **veil, overshadow** 2) **surpass**

   The moon has been **eclipsed** by mankind, and it is only natural that Mars be the next step for space exploration.

4. **skewed**
   *adj.* sloping or twisted
   *oblique, distorted*

   Made of hard wood, the boomerang is roughly V-shaped with arms slightly **skewed**.

5. **constellation**
n. a group of stars which form a pattern and have a name

In addition to the twelve ones of the Zodiac, thirty other **constellations** were familiar to people in ancient times.

6. **tributary**

n. a stream or river that flows into a larger stream or river

*branch, offshoot, streamlet*

A western **tributary**, called Valerie Glacier, advanced up to 122 feet per day.

7. **velocity**

n. a rate of motion; a speed in a certain direction

*speed, pace, rapidity*

The **velocity** of a river is controlled by the slope, depth, and toughness of the riverbed.

8. **refraction**

n. a change in the direction of a wave of light when it passes from one medium to another

*Because of refraction, the water in a tank never looks as deep as it actually is.*

9. **narcotic**

adj. taking away pain or especially causing sleep

*anesthetic, hypnotic, soporific*

*Some doctors have questioned whether surgical treatments, injections, and narcotic pain medications are being used appropriately in many patients.*

10. **petal**

n. one of the modified leaves, often scented and brightly colored
The most noticeable of the petals is called the labellum, or lip.

11. hitch
*n.* a small and temporary setback or difficulty
*problem, snag, obstacle*

There was a hitch in the program, which caused a two-hour delay.

12. molt
*v.* to shed feathers, hair, or skin to make way for a new growth
*shed*

All adult birds molt their feathers at least once a year.

13. coronary
*adj.* denoting vessels, nerves, or something else belonging or relating to the heart

Cholesterol may lead to coronary heart disease by building up in the arteries of the heart.

14. hypersensitive
*adj.* unusually sensitive; having feelings which are too easily hurt
*temperamental, touchy*

In an allergy, the animal’s immune system is hypersensitive to some substances it encounters, called allergens.

15. embryo
*n.* a developing young organism until hatching or birth

Eggs should not become chilled to a point where the embryo can no longer survive.
16. **fauna**
n. the animals of a given region or period considered as a whole

*Crows are probably the most frequently met and easily identifiable members of the native fauna of the United States.*

17. **intestine**
n. the long tube that carries waste matter from the stomach out of the body

*bowls, guts*

*Protein digestion begins in the stomach and ends in the small intestine.*

18. **resilience**
n. the power or ability to return to an original form or position after being bent, compressed, or stretched

*elasticity, springiness, flexibility*

*The tiny ant could be one of the most successful and marvelous species ever witnessed due to its unrivaled resilience.*

19. **metabolism**
n. the chemical reaction that occurs within the cells of a living organism

*Virtually all species have biological clocks that regulate their metabolism over a 24-hour period.*

20. **crevice**
n. a narrow crack

*fissure, cleft, cranny*

*Cactus range from the three-inch fishhook cactus nestled in a rock crevice to the towering Saguaro Cactus, which reaches heights of 30 to 40 feet.*
21. **grid**

*n.* a network of evenly spaced horizontal and vertical lines that can be superimposed on a chart

On more modern GPSs used in vehicles, it even shows an animated car exactly where it is on a city **grid**.

22. **quicksand**

*n.* wet sand that can suck down anything that lands or falls on it

Although **quicksand** can be found all over the world, little was known about its composition until recently.

23. **dune**

*n.* a ridge or hill, usually on a seashore or in a hot desert

Sand **dunes** are made of loose sand built up by the action of the wind.

24. **geyser**

*n.* a type of hot spring that intermittently spouts hot water and steam into the air

**Geyser**s have often been compared to volcanoes because they both emit hot liquids from below the Earth’s surface.

25. **incandescent**

*adj.* white-hot or glowing with intense heat

**Glowing, flaming, flaring**

Some geologists thought that the Earth’s interior contained a highly compressed ball of **incandescent** gas.
26. **synchronize**
1) v. to happen or make something happen in exact time with something else or each other
2) v. to set clocks and watches so that all show the same time

1) **coincide** 2) **coordinate, mate**

The GPS receiver **synchronizes** its clock with that of the satellites’ atomic clocks.

27. **basalt**

*n.* a fine-grained dark volcanic rock formed by the solidification of molten lava

The black obsidian cliffs of Yellowstone National Park are the result of a lava flow of **basalt** running head on into a glacier.

28. **stratum**

*n.* a layer of sedimentary rock; a layer of the atmosphere or the ocean

**level, layer**

The formation of snow begins with these ice crystals in the subfreezing **strata** of the middle and upper atmosphere.

29. **weathering**

*n.* the action of weather on rocks making them change shape or color

**efflorescence, erosion**

**Weathering** involves the interaction of the lithosphere with the atmosphere and hydrosphere.

30. **symmetrical**

*adj.* characterized by or exhibiting symmetry; proportionally balanced

**proportional, well-balanced**

The elliptical galaxies have a **symmetrical** elliptical or spheroidal shape with an obvious structure.
1. **thaw**
   v. to melt; to make snow or ice melt
   melt, deice, unfreeze

   During the summer, the permafrost **thaws** enough so that plants are able to grow and reproduce.

2. **crooked**
   adj. bent or curved, angled, or twisted; not straight
   bowed, askew, distorted

   Lombard Street in San Francisco, which zigzags its way up a steep hill, is known as the most **crooked** street in the world.

3. **hoist**
   v. to lift or heave something up, especially something heavy
   elevate, raise, uplift

   During the construction of skyscrapers, cranes are used to **hoist** building materials to the upper floors.

4. **opulent**
   adj. having or showing great wealth
   affluent, wealthy, well-to-do

   Many of the world’s most **opulent** restaurants are located in luxury hotels.

5. **barge**
   n. a long and flat-bottomed boat used on rivers and canals
Coal, grain, steel, and other products are often shipped by barge on inland waterways.

6. peg
   n. a little shaft of some wood shaped for any of various fixing
   pin, rod, bolt

Early carpenters, having no nails, had to use wooden pegs to secure their constructions.

7. canal
   n. an artificial channel or waterway

It is said that George Washington was one of the first to realize how important the buildings of canals would be to the nation’s development.

8. vindicate
   v. to prove that something is true or right; to clear someone of blame or criticism
   justify, support, exonerate

Carson’s work was vindicated by a 1963 report of the President’s Science Advisory Committee.

9. roam
   v. to ramble or wander with no fixed purpose or direction
   wander, range, rove

Millions of bison once roamed the plains of North America.

10. pasture
    n. an area of grasslands suitable or used for the grazing of livestock
    meadow, grassland, range
Overgrazing is a result of too much livestock being kept on a given area of pasture.

11. **pulverization**  
*cf.* **pulverize**  
n. the action of reducing to dust or powder.  
grinding, shattering, crushing

The result of cattle grazing in an area is the reduction of the natural vegetation and the **pulverization** of the soil.

12. **enzyme**  
n. a specialized protein molecule that acts as a catalyst

*In fact the enzyme may cause a reaction to proceed billions of times faster than it would otherwise.*

13. **stasis**  
n. a situation in which there is no change or development  
counterpoise, equilibrium, equipoise

*Basil works together in conjunction with helpful predatory insects to create a state of stasis in which the levels of harmful pest damage are minimized without the use of any chemicals.*

14. **mileage**  
n. the number of miles traveled or to be traveled

*Tests have shown that the new diesel gets between 25% and 45% better mileage than gasoline.*

15. **tusk**  
n. one of a pair of long and projected teeth certain animals, like the elephant, have

*Mammoths were distinguished from today’s elephants by their thick, shaggy coats and their huge, upward-curving tusks.*
16. camouflage

*n.* the way that the color or shape of something can make it difficult to see

*cover, disguise, concealment*

*These snakes have camouflage patterns on them and can be very difficult to see.*

17. splice

*v.* to join two pieces of rope by weaving the strands of one into the other

*knit, unite, bind*

*Another possible solution to the problem of overfishing is gene splicing, which can accelerate the reproduction of fish many times.*

18. arboretum

*n.* a botanical garden where trees and shrubs are grown

*In an arboretum, trees are cultivated for scientific and educational purposes.*

19. infrared

*n.* a wavelength between the red end of the visible spectrum and microwaves and radio waves

*The greenhouse effect is a process by which the sun’s infrared radiation is more readily absorbed by the atmosphere.*

20. kingdom

*n.* a category in biological taxonomy; one of the five major groups into which all living things are organized

*Members of the animal kingdom have developed a variety of defense mechanisms for dealing with parasites.*
21. veterinarian
   n. a person trained in the medical care and treatment of sick animals

   A dog should be checked regularly by a veterinarian to ensure that it remains in good health.

22. slash and burn
   ph. characterized by a system of agriculture in which trees are cut down and burned in order to make land available for crops

   This terrible loss of vegetation and farmland is due to the slash and burn agricultural practices used by the indigenous people.

23. astigmatism
   n. the inability of the eye to see properly because of its shape

   Symptoms of astigmatism are blurred vision and, in more extreme cases, headaches.

24. dementia
   n. a loss or severe lessening of normal mental ability

   Alzheimer disease is the most common form of dementia.

25. hepatitis
   n. an inflammation of the liver caused by a viral infection

   Early signs characteristic of the acute phase of viral hepatitis are abdominal pain, nausea, and fever often accompanied by chills.

26. plasma
n. the component of blood or lymph in which the blood cells are suspended

Blood is usually stored as whole blood or plasma.

27. **hypersomnia**
n. the condition of sleeping for excessive periods

Contrary to popular belief, many studies have shown that hypersomnia could actually be even more common than its nocturnal cousin, insomnia.

28. **ligament**
n. a band of tough connective tissue that holds two bones together at a joint

sinew, string

They are also the muscles that connect to tendons and ligaments, which connect them to our bones.

29. **anesthesia**
n. a reversible loss of sensation in all or part of the body

narcosis

Frontier surgeon Ephraim MacDonald had to perform operations without anesthesia.

30. **pituitary gland**
ph. a small and oval endocrine gland attached to the base of the vertebrate brain

Endocrine is used to refer to glands like the thyroid and pituitary glands, which secrete products directly into the bloodstream.
1. **footage**
n. a clip from a film used in a TV program or a movie

Scenes of factory interiors account for only about one third of the *footage* of Modern Times.

2. **chisel**
n. a hand tool which has a strong metal blade with a cutting edge at the end of the blade, used for cutting into or shaping wood, stone, or something else

Neoclassical sculptors seldom held a mallet or *chisel* in their own hands.

3. **snide**
adj. expressing criticism or disapproval in an unpleasant manner

*scornful*

Although many intellectuals make *snide* remarks about TV viewing, there are a number of “high-brow” shows.

4. **intonation**
n. the rise and fall of the pitch of the voice in speech

*inflection, accent, tone*

These differences in adult stress and *intonation* can influence babies’ emotional states and behavior.

5. **vowel**
adj. pertaining to any of the human speech sounds in which the breath is let out without any closing of the air passage in the mouth or throat
Most common are those words beginning with p, b, d, or n sounds followed by a vowel sound.

6. stationary
adj. not moving; standing still
fixed, immovable, static

As early as 1802, he was using a stationary steam engine of high-pressure design in his mill.

7. surge
v. to move up and down or to swell with force
wave, bulge, rise and fall

Most of the surging population growth came from a natural increase.

8. salvage
v. to rescue property or a ship from potential destruction or loss
save, rescue, retrieve

Even after a ship has sunk, its cargo can often be salvaged.

9. hinterland
n. a region lying inland from the coast or the banks of a river
interior, province

Philadelphia became an increasingly important marketing center for a vast and growing agricultural hinterland.

10. semantics
n. the branch of linguistics that deals with the meanings of words

One important branch of linguistics is semantics, which analyzes the meanings of words.
11. **utilitarian**

*adj.* intended to be useful rather than beautiful

**functional, practical, useful**

*Pottery usually has utilitarian purposes, and sometimes it is designed purely for decorative reasons.*

12. **derogatory**

*adj.* showing disapproval, dislike, scorn, or a lack of respect

**depreciating, lowering, insulting**

*We used to call them Eskimos, but, today, that term is regarded by many Inuit as derogatory.*

13. **polygamy**

*n.* the custom of having more than one husband or wife

*Marriages were not always monogamous. Some men practiced polygamy.*

14. **hieroglyphs**

*n.* a symbol representing a word, syllable, sound, or idea

*Hieroglyphs catered to religious rules and represented important concepts with stylized pictures.*

15. **etch**

*v.* to make designs on metal by using acid to eat out the lines

**engrave**

*The monument at Mount Rushmore is a giant sculpture of four United States presidents that is etched into the highest peak in the Black Hills mountain range.*
16. humanitarian
adj. concerned with improving people’s lives and welfare

She is remembered for her work in literature and also for her humanitarian work.

17. evacuate
v. to leave a place, especially because of danger
leave, vacate, decamp

The Bucks returned to China in the year 1927 only to be evacuated to Japan during the Chinese Civil War.

18. hoard
v. to store or gather something especially for use in the future
store, reserve, set aside

The famous miser Ebenezer Scrooge would hoard his money and never spend it.

19. consort
v. to associate or keep company with someone
mingle, mix, pal

Some colonial urban portraitists consorted with affluent patrons.

20. gruff
adj. having a deep and rough voice
hoarse, husky, rough

Louis Daniel Armstrong is known for the beautiful, clear tone of his trumpet-playing and for his gruff, gravelly singing voice.
21. faction

*n.* an active or trouble-making group within a larger organization

**group, cabal, bloc**

Those who were pro-slavery joined the Democrats, and the anti-slavery *faction* switched to the Republicans, who were led by Abraham Lincoln.

22. morph

*v.* to form, shape, or structure

Their distinct styles reflected the social mentality of the era and its ability to *morph* and grow in a new direction.

23. fiddle

*n.* a violin, especially when used to play folk music or jazz

After work, the people of the frontier sang and danced to *fiddle* tunes or country dances.

24. prop

*n.* a small article, such as a weapon or piece of furniture, that is used on stage in the acting of a play

Provincial theaters frequently lacked heat and even minimal *props* and scenery.

25. pretend

1) *adj.* imaginary
2) *v.* to make believe; to act as if
1) *imagined, fake* 2) *make believe, feign*

In the experiment, the child was presented with a picture of some kind of *pretend* creature.

26. lexicon
n. a dictionary; the vocabulary of terms used in a particular branch of knowledge
dictionary

Whether the term “couch potato” was first said in jest or not, it has stuck and is now a part of the lexicon of modern-day people.

27. **metaphysical**

*adj.* belonging or relating to metaphysics

abstract, psychic

*Metaphysical* philosophy is concerned with the principles, structures, and meanings that underlie all observable reality.

28. **template**

*n.* a piece of metal cut in a particular shape and used as a pattern when cutting out material

pattern, model

*The Rainbow provided the template for a new generation of ships that amazed the world.*

29. **catalyze**  *cf. catalyst*

*v.* to bring about a change in the rate of a chemical reaction; to alter significantly

*Mass transportation catalyzed physical expansion, it sorted out people and land uses, and it accelerated the inherent instability of urban life.*

30. **thermal**

*adj.* belonging or relating to, caused by, or producing heat

*Glass fibers were little more than a novelty until the 1930s, when their thermal and electrical insulating properties were appreciated.*
1. **premise**
   
n. a statement or idea assumed to be true as a basis for stating something further
   
   **assumption, proposition, supposition**

   *Keynes’ premise was that the rate of economic growth depends on an aggregate demand for goods.*

2. **heyday**
   
n. the climax of the most success and prosperity
   
   **golden age, best days**

   *Clipper ships saw their heyday in the early to mid-1800s.*

3. **consensus**
   
n. a general agreement; the opinion of most of the people in a group

   *The conference came to a consensus, overcoming a variety of challenges.*

4. **sweatshop**
   
n. a workshop in which the employees work hard, often in terrible conditions

   *There were sweatshops in city tenements, where groups of men and women manufactured clothing or cigars.*

5. **depression**
   
1) n. a period of low business and industrial activity
2) n. a mental state of prolonged sadness and pessimism

   *recession, slump 2) dejection, gloom*
The Wall Street Crash of 1929 leads to years of economic depression in the United States.

6. **tariff**
   *n.* the tax to be paid on a particular class of goods imported or exported

The federal government set up a system of tariffs that was basically protectionist.

7. **microcosm**
   *n.* any structure which contains, in miniature, all of the larger structure

The settlement at Jamestown in Virginia was in many ways a microcosm of the economy of colonial North America.

8. **surplus**
   *n.* an amount that exceeds the amount required

   leftover, oversupply, excess

The administration raised the possibility that the slowing economy could drive the federal budget surplus down this year.

9. **embargo**
   *n.* an official order forbidding something, especially trade with another country

   ban, prohibition, proscription

The Nazi’s embargo immediately affected the United States and many of its allies.

10. **laissez-faire**
    1) *adj.* with minimally restricted freedom in commerce
    2) *n.* a policy of not interfering in what others are doing

    He reversed the traditional federal policy of laissez-faire and sought to bring order, social justice, and
fair dealings to American industry and commerce.

11. tenet

n. a principle or belief held by a person, group, or something else
creed, doctrine, dogma

Not all of the members accepted the church’s tenets.

12. pluralism

n. the belief or theory that reality consists of more than two kinds of substances

Locke recommended a cultural pluralism through which artists could enrich the culture of America.

13. decimal

adj. based on the number 10

Canada adopted the decimal system of coinage in 1867.

14. pseudo

adj. not actual but having the appearance of; false or spurious
quasi, sham, deceptive

According to the pseudo-science of racial classification, Africans were deemed inferior and unintelligent.

15. breadbasket

n. an area which produces large amounts of grain for export
rich grain district, granary

The regions around New York and Philadelphia became the breadbasket of North America.
16. genealogy
n. the history of the members of a family from the past to the present; a person’s direct line of descent from an ancestor
pedigree, lineage

Today, individuals, driven by an urge to learn more about their family’s history, often trace their personal lineages through online genealogy sites.

17. miscarriage
n. a case of accidentally giving birth to a child too early for it to live

Abortion exists in some animals as a natural phenomenon in the form of miscarriages.

18. commentary
n. a spoken description of an event while it is happening, especially on the radio or television; a criticism or discussion of something
comment, exposition, criticism

James Franklin was the first editor to see the newspaper as a means of expressing social and political commentary.

19. questionnaire
n. a set of questions formulated as a means of collecting information

One of the most important tools for research in social science is a well-written questionnaire.

20. treaty
n. a formal agreement between states or governments
agreement, compact, protocol

The defeated were forced to sign a treaty with their opponents.
21. **veto**
   1) *n.* the right to formally reject a proposal
   2) *v.* to formally and authoritatively reject or forbid
   1) *turndown, rejection* 2) *deny, proscribe*

   *If it’s not to the president’s liking, the bill can be **vetoed** or killed in two other ways.*

22. **bracket**
   *n.* a group or category fixed according to certain upper and lower limits
   *class, group, rank*

   *Unfortunately, such options are not available to all, especially those in a lower income **bracket.***

23. **egalitarian**
   *adj.* relating to the principle that all human beings are equal

   *Olmstead’s concept was to make the park a symbol of democracy and **egalitarian** ideals.*

24. **cognition**
   *n.* the mental processes which enable humans to experience and process knowledge and information

   *What psychologists call **cognition** is a general category that includes all mental states and activities.*

25. **ethology**
   *n.* the study of animal behavior with an emphasis on their behavioral patterns

   *Ethology began to be applied to research on children in the 1960s but has become even more influential today.*
26. paranoia
n. a rare mental disorder characterized by delusions of persecution by others

The memories of the terrible events were so powerful that they suffered from insomnia, paranoia, and other dramatic side effects.

27. traumatic
adj. relating to, resulting from, or causing physical wounds; of an experience deeply and unforgettable shocking

Anyone who has been in a car accident, been robbed, or been in any kind of traumatic event can suffer from post-traumatic stress disorder.

28. supersede
v. to take the place of something

displace, replace, supplant

Plastic and fiberglass have superseded metal in the replacement of such body parts as eyeballs, teeth, and bones.

29. hub
n. the center of a wheel; the center of activity or importance

center, core, pivot

Phoenix is the ninth largest city in the United States and is the hub of the rich agricultural region of the Salt River Valley.

30. anarchy
n. lawlessness and social and political disorder caused by absence of government or control; any state of disorder and confusion

The Dadaists’ answer was to embrace anarchy and the irrational.
1. **tilt**
n. a sloping position or angle; a slant
incline, pitch, slope

*Earth’s tilt, which gives us the seasons, is probably due to the impact of a large object at its birth.*

2. **nebula**
n. a mass of gas and dust among the stars, appearing often as a bright cloud at night

*Jupiter is the best-preserved sample of the early solar nebula.*

3. **tug**
1) v. to pull sharply or strongly
2) n. a strong, sharp and sudden pull
1) draw, haul 2) drag, yank

*Tides are caused by the tug of the moon’s gravity.*

4. **elliptical**
adj. relating to, or having the shape of, an ellipse; rounded like an egg
oval

*The satellite is following an elliptical path 680 miles from the Earth at its farthest point.*

5. **plasma**
n. a gas that has a nearly equal number of positively and negatively charged particles

*The gas is stripped of its electrons by heat, and each atom thereby acquires a positive electric charge.*
In this form, the gas is called “plasma.”

6. **diffraction**
   *n.* the spreading out of light waves as they emerge from a small opening or slit

*Two young scientists boldly published the results of their experiments on the diffraction of light.*

7. **spell**
   *n.* a period or bout of illness, work, weather, or something else
   *interval, period*

*High-pressure cells may bring brief warm spells even in the middle of winter.*

8. **imprinting**
   *n.* the process by which animals rapidly learn the characters of their own species

*Like all migratory birds, they have a natural instinct called imprinting, which means they will follow and trust the first object they open their eyes to.*

9. **gill**
   *n.* a respiratory organ of a fish that extracts dissolved oxygen from the surrounding water
   *branchia*

*Menhaden swim with their mouths open, allowing water to flow through their gills.*

10. **herbarium**
    *n.* a classified collection of preserved plants in a room

*Unfortunately, no book described the weed, and no samples existed in any herbaria in the United States.*
11. biodiversity
*n.* the existence of different species of living organisms within a given area

One definitive characteristic of tundra is a very low level of biodiversity.

12. pathological
*adj.* of or pertaining to pathology; caused by or involving disease

morbid

Some researchers have argued that some left-handedness may have a pathological origin, having been caused by brain trauma during birth.

13. vertebrate
*n.* any animal that has a backbone

The first flying vertebrates were true reptiles which had one of the fingers from their front limbs become very elongated.

14. invertebrate
*n.* any animal that does not possess a backbone

Some marine invertebrates migrate from deep water to shallow water to spawn during spring and early summer.

15. metamorphosis cf. metamorphose
*n.* a change in physical form that occurs during the development process; a complete change

transformation, change

Butterflies undergo metamorphosis changing from caterpillar to pupa.
16. **superficial**  
*adj.* apparent rather than actual or substantial  
*external, shallow*

There was only a **superficial** resemblance between the two creatures.

17. **avalanche**  
*n.* the rapid movement of a large mass of snow down a mountain slope  
*snowslide*

Occurring predominantly in mountainous areas, **avalanches** are triggered by **earthquake** tremors, human disturbances, or excessive rainfall.

18. **estuary**  
*n.* the broad mouth of a river that flows into the sea

Other deltas do not appear to be deltas at all but are more like **estuaries** because the strength of the tides and waves is so strong in those areas.

19. **longitude**  
*n.* the imaginary circles that pass through both poles measured from Greenwich

Lines of **longitude** run from the North to South poles.

20. **coma**  
*n.* the envelope of gas which forms around the nucleus of a comet

The visible **coma** is a huge cloud of gas and dust that has escaped from the nucleus.

21. **reclamation**  
*n.* the conversion of wasteland to commercial use
Reclamation is the successful attempt to make unusable land suitable for farming.

22. congregate

v. to gather together into a crowd
assemble, collect, cluster

Like stars, galaxies tend to congregate in clusters.

23. granite

n. a hard and coarse-grained igneous rock widely used in buildings and roads

Granite is a coarse-grained igneous rock whose individual mineral crystals have formed to a size easily seen by the naked eye.

24. lava

n. the magma that has erupted from a volcano; a rock in a very hot liquid state flowing from a volcano

In its molten state, the material is called magma when it pushes into the crust and lava when it runs out onto the surface.

25. asteroid

n. a small rocky object or a celestial body orbiting a star

Our solar system has 240 moons, or natural satellites, that circumnavigate the planets and asteroids.

26. bulge

v. to swell outwards
swell, protrude, stick out
A planet’s rotation generally causes a slight flattening at the poles and **bulging** at the equator.

27. **scrap**
   1) **v.** to discard or cease to use
   2) **n.** a small piece
   1) **abandon, discard** 2) **piece, fragment**

   Denver’s plan to build a subway system was **scrapped** in the 1970s.

28. **tectonics**
   **n.** the study of continental drift and how mountains and volcanoes form

   With an understanding of plate **tectonics**, geologists have put together a new history of the Earth’s surface.

29. **latitude**
   **n.** the imaginary circles drawn around the Earth parallel to the equator

   **Latitude** lines start at zero degrees at the equator and then run north to the North Pole.

30. **stark**
    **adj.** barren or severely bare; harsh or simple
    **vacant, severe, desolate**

   Mars is an inhospitable planet, more similar to Earth’s moon than to Earth itself – a dry, **stark**, seemingly lifeless world.
1. **vicinity**
n. an area very near to or around a stated place
*neighborhood, environs, locale*

*A metropolitan area consists of a central city and any suburban areas in its vicinity.*

2. **feasibility**  cf. feasible
*n. the capability of being done or achieved
*practicability, workability, viability*

*The canal was never completed, but it showed the nation the feasibility of canals.*

3. **arch**
n. a curved and both-side supported structure forming an opening of a roof, post, or pillar

*The committee appointed by the mayor will undertake the erection of a memorial arch in honor of the soldiers who died in the war.*

4. **divergence**
n. the act of moving away in a different direction from a common point; a difference between two or more things
*separation, division, difference*

*Most domestic architecture during the first three-quarters of the eighteenth century displays a wide divergence of tastes.*

5. **topography**
n. the science of describing the character of an area; the natural and constructed features on the surface of
He and his brothers believed that parks should be adapted to the local **topography**.

**6. order**
n. the groups into which a class is divided and subdivided into more families

*Scientists cannot agree on how fleas are related to other orders of insects.*

**7. environmentally-kind**
adj. suitable to the surroundings; harmonizing with the circumstances

*eco-friendly, nature friendly, green*

*There is a number of what we call green fuels, more environmentally-kind fuels, on the market right now.*

**8. adrenal**
adj. pertaining to the adrenal glands; relating to the kidneys

*suprarenal*

*The adrenal glands, one on top of each kidney, secrete many important hormones.*

**9. cardiac**
adj. relating to or affecting the heart

*As the name implies, cardiac muscle is the tissue that surrounds the heart and allows it to pump blood throughout our bodies.*

**10. inflammation**
n. the presence of redness and swelling from an infection
Encephalitis is an inflammation of the brain that can be caused by rabies.

11. hyperopia  
*n.* a condition in which distant objects are seen more distinctly than near ones  
**farsightedness**

As they grow and develop, sometimes the shape of the eye does as well, thereby alleviating the *hyperopia*.

12. narcolepsy  
*n.* a condition marked by sudden episodes of irresistible sleepiness  

*Scientists believe that narcolepsy is a genetic disorder passed down through generations.*

13. antidepressant  
*n.* a drug that prevents or relieves the symptoms of depression  

*Seven out of ten practicing health care professionals in Alaska prescribe antidepressants to their patients.*

14. neutron  
*n.* one of the electrically uncharged particles in the nucleus of an atom  

*The neutron is neutral, meaning it has no charge.*

15. photosynthesis  
*n.* the process of manufacturing carbohydrates from carbon dioxide and water by using light  

*During the process of photosynthesis in green plants, light energy is captured and used.*
16. **genetics**
*n.* the scientific study of heredity and of its mechanisms

*Our body types are usually fixed by heredity, that is, genetics.*

17. **antioxidant**
*n.* a substance that slows down the oxidation of other substances

*One excellent example of an herbal remedy is mushroom tea, which is an excellent antioxidant.*

18. **asthma**
*n.* a long-lasting disease which causes difficulty in breathing

**chronic respiratory disease**

*Hot, humid weather can make an asthma sufferer’s condition much worse.*

19. **chromosome**
*n.* the microscopic thread-like structures of a cell which contain all the genetic information

*Almost all the hereditary material of an individual organism resides in the chromosomes.*

20. **endocrine**
*adj.* relating to internal secretions or to a pathway or structure that secretes internally

*The endocrine system functions in close relationship with the nervous system.*

21. **cornea**
*n.* the convex transparent membrane that covers the front of the eyeball

*The cornea protects the internal workings of the eye from things like foreign debris.*
22. **lens**  
*n.* a piece of round and transparent flesh behind the pupil in the eye

*The lens focuses the image before it moves inwardly onto the retina.*

23. **myopia**  
*n.* a condition in which distant objects appear blurry

**shortsightedness**

*People with myopia have difficulty seeing objects far away but can see things up close very easily.*

24. **measles**  
*n.* a highly infectious disease characterized by fever, a sore throat, and a blotchy red rash

**rubeola**

*Among the symptoms of measles are a high fever, the swelling glands and a cough.*

25. **polio**  
*n.* a viral disease of the brain and spinal cord which can result in paralysis

**poliomyelitis**

*The polio vaccine was discovered by a physician named Jonas Salk.*

26. **receptor**  
*n.* an element of the nervous system adapted for reception of stimuli

*These are genes that are associated with particular nerve-cell receptors in the brain.*

27. **kidney**
n. an organ whose function is the removal of waste products from the blood

The **kidneys** play a vital role in maintaining health by removing impurities from the bloodstream.

28. **pancreas**

n. an organ that is situated behind the stomach and which produces insulin

The hormone secretin travels through the bloodstream and stimulates the **pancreas** to liberate digestive fluid.

29. **isotope**

n. one of two or more atoms with the same atomic number but with different numbers of neutrons

Carbon can have **isotopes** like carbon-12, carbon-13, and carbon-14.

30. **proton**

n. the positively charged particles that are found at the center of an atom

The number of **protons** in the nucleus of an atom varies from element to element.