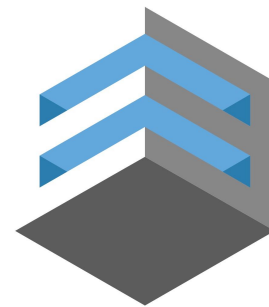


# Englist.me



## Vocabulary Builder Reference from...

*Zoe Pierrat: Earth's mysterious red glow, explained |*

*TED Talk*

[https://www.ted.com/talks/zoe\\_pierrat\\_earth\\_s\\_mysterious\\_red\\_glow\\_explained](https://www.ted.com/talks/zoe_pierrat_earth_s_mysterious_red_glow_explained)

### All Words

#### IMPORTANT

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## Session 1: Word List

### satellite

- n.* an electronic device that is sent up into space and moves around the Earth or another planet, used for gathering information or communicating by radio, television, etc.

*synonym*: orbiter, asteroid, moon

- (1) a GPS **satellite**, (2) a meteorological **satellite**

Launching an artificial **satellite** contributed to the technological development of our country.

### scan

- v.* to examine something hastily, with the eyes or with a machine, to get information

*synonym*: look over, scrutinize, browse

- (1) **scan** the face of the man, (2) **scan** a document into PDF  
She stood on the podium and **scanned** an audience.

### wavelength

- n.* the distance between two points in the same phase in consecutive cycles of a wave

- (1) **wavelength** of light, (2) long- **wavelength** laser

White color is made up of many different **wavelengths** of light.

### planet

- n.* any of the nine large celestial bodies that circle in the solar system; any celestial body that revolves around a

star

*synonym*: earth, world, globe

(1) **planet** like the Earth, (2) save the **planet**

Mercury is the closest **planet** to the sun.

**spectral**

*adj.* relating to or having the properties of a spectrum (= an ordered array of colors into which a light beam can be split); relating to a ghost or apparition

*synonym*: spiritual, ghostly, otherworldly

(1) two **spectral** bands, (2) **spectral** colors

The **spectral** analysis revealed unexpected details about the composition of the planet's atmosphere.

**carbon**

*n.* a chemical element that can be found in pure form as diamond or graphite, and it is also an essential part of coal and oil and is found in all plants and animals

(1) **carbon** dioxide, (2) **carbon** emission

Trees absorb **carbon** dioxide and give off oxygen.

**oxide**

*n.* a chemical compound that contains at least one oxygen atom and one other element

(1) silver **oxide**, (2) combined **oxide**

The blood's red coloring comes from iron **oxide**.

**baffle**

*v.* to bewilder or perplex someone completely and to be unable to understand or explain something

*synonym*: perplex, astound, hinder

(1) **baffle** his plan, (2) **baffle** outside noises

The paradox **baffled** most philosophers.

**unexpected**

*adj.* not anticipated or regarded as likely to happen

*synonym*: surprising, unanticipated, incredible

(1) an **unexpected** visitor, (2) some **unexpected** events

The **unexpected** rainstorm caused the collapse of the corral.

## origin

*n.* the first existence or beginning of something

*synonym* : root, source, ancestor

(1) **origin** of information, (2) racial **origin**

There are various hypotheses concerning the **origin** of life.

## hue

*n.* the quality of a color as determined by its dominant wavelength

*synonym* : dye, tint, coloring

(1) the **hues** of a rainbow, (2) **hue** change

To achieve a warmer **hue**, add orange paint.

## vary

*v.* to become different in terms of size, shape, etc.

*synonym* : alter, contrast, differ

(1) **vary** according to the age, (2) **vary** directly with the price

Maximum heart rates **vary** a lot for each individual.

## intensify

*v.* to increase or make something increase in extent or strength

*synonym* : amplify, boost, strengthen

(1) **intensify** diplomatic efforts, (2) **intensify** a good relationship

Rebels have pledged to **intensify** the armed struggle against the dictatorship.

## sunlight

*n.* the light emitted by the sun; the rays of the sun

*synonym* : daylight, rays, sunshine

(1) a glare of **sunlight**, (2) in direct **sunlight**

Radiation from **sunlight** has a different wavelength.

## atmosphere

*n.* the mass of air that surrounds the Earth; the pervading tone or mood of a place, situation, or creative work

*synonym* : air, ambiance, circumstances

(1) carbon dioxide in the **atmosphere**, (2) a convivial **atmosphere**

The spaceship began to burn up as it approached the Earth's **atmosphere**.

## correspond

*v.* to match or be similar to something else almost exactly;  
to exchange messages

*synonym*: match, equate, communicate

(1) **correspond** to a standard, (2) **correspond** with a foreign student

The numbers on the sign **correspond** to points on the map.

## dense

*adj.* containing a large number of people or something with little space between them

*synonym*: heavy, thick, idiotic

(1) nutrient- **dense** foods, (2) **dense** forests

The entire mountain is covered in **dense** rainforest.

## human-made

*adj.* created or produced by humans; artificial

*synonym*: artificial, unnatural, manufactured

(1) **human-made** climate change, (2) the worst **human-made** disaster

The bridge is a **human-made** structure and was built to span the river.

## emanate

*v.* to emit, send out something; to express a quality or feeling

*synonym*: radiate, exude, give off

(1) **emanate** light, (2) **emanate** happiness

The fragrance of flowers **emanated** from the garden.

## basin

*n.* a natural depression or valley that is circular or oval on the surface of the earth, especially one that has water in it; a container with a bowl form that is typically used to hold food or liquids

*synonym*: watershed, bowl

(1) inland **basin**, (2) the **basin** of the Great Salt Lake

Many of the lakes and marshes in the **basin** are mildly salty.

## evergreen

*adj.* (of plants) retaining its leaves or foliage throughout the year; (figuratively) enduring, perennial, or constant

*synonym*: ever-blooming, perennial, unfading

(1) **evergreen** classic, (2) **evergreen** shrub

The **evergreen** trees in the forest stay green all year round.

## **cropland**

*n.* land used for growing crops, typically for agricultural purposes

*synonym*: cultivated land, farmland, arable land

(1) **cropland** management, (2) irrigated **cropland**

The government has set aside a large area of **cropland** for agricultural research.

## **ablaze**

*adj.* on fire; burning brightly

*synonym*: burning, alight, on fire

(1) sky **ablaze** with stars, (2) **ablaze** with passion

The building was **ablaze** with fire.

## **photosynthesis**

*n.* the process through which plants and other organisms transform light energy into chemical energy, which is then released through cellular respiration to power the organism's activities.

(1) oxygenic **photosynthesis**, (2) process of **photosynthesis**

In **photosynthesis**, plants use carbon dioxide to feed themselves.

## **mystery**

*n.* something difficult to understand or explain; a secret or enigmatic quality that adds to the fascination or interest of something; a genre of fiction that involves the solution of a crime or a puzzle

*synonym*: enigma, puzzle, secret

(1) **mystery** novel, (2) unsolved **mystery**

The **mystery** surrounding the disappearance of the traveler has yet to be solved by authorities.

## **process**

*n.* a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable

for consumption or use in other dairy products

*synonym* : procedure, method, system

(1) **process** improvement, (2) decision-making **process**

The **process** for applying for a visa can be lengthy and complicated.

## structure

*n.* the way of construction of something and the arrangement of its parts, or a complex thing constructed of many parts

*synonym* : construction, architecture, establishment

(1) the **structure** of a machine, (2) **structure** and function of the brain

The organizational **structure** of start-ups is often flat and straightforward.

## chloroplast

*n.* a type of membrane-bound organelle that conducts photosynthesis in plant and algal cells.

(1) **chloroplast** DNA, (2) **chloroplast** protein

**Chloroplast** membranes are incredibly vulnerable to damage by oxygen radicals produced as a byproduct of photochemistry.

## chlorophyll

*n.* any of a group of green pigments found in photosynthetic organisms

(1) **chlorophyll** pigment, (2) bacterial **chlorophyll**

**Chlorophyll** utilizes sunlight to create sugars.

## molecule

*n.* a group of two or more atoms held together by attractive forces known as chemical bonds

*synonym* : particle, element, atom

(1) small **molecules**, (2) **molecule** behavior

The shape of the DNA **molecule** is a double helix.

## absorb

*v.* to take in a fluid or other substance gradually

*synonym* : consume, soak, ingest

(1) **absorb** energy, (2) **absorb** a shock

The sponge **absorbs** water well.

## electron

*n.* a tiny particle with the negative electrical charge

*synonym* : negatron

(1) flow of **electrons**, (2) beam of **electrons**

The outermost **electron** shell determines the chemical properties of an atom.

## reaction

*n.* a response that reveals a person's feelings or attitude;  
(in chemistry) a process in which one or more substances are changed into others

*synonym* : response, reply, answer

(1) chemical **reaction**, (2) trigger a **reaction**

There was a chemical **reaction** of the lime with the groundwater.

## transform

*v.* to change in outward structure or looks;

*synonym* : alter, convert, change

(1) **transform** an education system, (2) **transform** heat into power

My father's death **transformed** my life completely.

## chemical

*adj.* relating to or connected with chemistry;

*synonym* : chemic, synthetic

(1) toxic **chemicals**, (2) a **chemical** compound

The firm has grown into a large **chemical** manufacturing.

## conversion

*n.* the act or process of changing something from one thing to another; the state of being changed

*synonym* : transformation, change, metamorphosis

(1) **conversion** rate, (2) **conversion** therapy

The developer's **conversion** of the old factory into a modern loft apartment complex was a major success.

## glucose

*n.* a type of sugar that is found in plants, especially fruit, and is an essential energy source in living things

*synonym* :

sugar, blood sugar

(1) blood **glucose** test, (2) **glucose** level

The doctor injected **glucose** into his patient's veins.

## generate

*v.* to produce or create something; to make offspring by reproduction

*synonym*: create, yield, produce

(1) **generate** more electricity, (2) **generate** \$100 a month

The economic stimulation program would **generate** a lot of new jobs.

## byproduct

*n.* a secondary or incidental product produced in the manufacture or synthesis of something else

*synonym*: side effect, spinoff, outgrowth

(1) toxic **byproducts**, (2) **byproduct** of technology

The **byproduct** of the energy production process is a large amount of carbon dioxide emissions.

## constantly

*adv.* all the time

*synonym*: continuously, always, frequently

(1) a **constantly** innovative enterprise, (2) a **constantly** varying mind

The mobile application industry is **constantly** changing.

## algae

*n.* A simple plant that grows in or near water and lacks typical leaves and roots

(1) **algae** biofuel, (2) blue **algae**

**Algae** has jammed the inlet to the water turbine.

## bacteria

*n.* single-celled or noncellular spherical or spiral or rod-shaped organisms that exist in large numbers in the air, water, and soil, and also in living and dead creatures and plants, and are often a cause of disease

*synonym*: microorganism, microbe

(1) pathogenic **bacteria**, (2) harmless **bacteria**

**Bacteria** prevalent in hospitals are often resistant to



antibiotics.

## oxygen

*n.* the chemical element with the symbol O that is present in air and water and is necessary for people, animals, and plants to live

(1) the hydrogen binds the **oxygen**, (2) lack of **oxygen**  
The passenger grabbed for the **oxygen** mask.

## regularly

*adv.* at regular intervals or times

*synonym*: repeatedly, routinely, usually

(1) **regularly** arranged, (2) post **regularly** to a blog  
This site **regularly** shares high-quality academic materials.

## consume

*v.* to spend something, especially fuel, energy, or time, in a large amount

*synonym*: absorb, ingest, use up

(1) **consume** a large of alcohol, (2) **consume** electricity  
A smaller car will **consume** less fuel.

## instance

*n.* a particular example or single occurrence of something

*synonym*: example, sample, illustration

(1) for **instance**, (2) notable **instance**  
These articles cite five **instances** of climate change.

## exposed

*adj.* having no protection or shield from something, such as bad weather, attack, or criticism

*synonym*: endangered, revealed, disclosed

(1) **exposed** to radiation, (2) an **exposed** rock  
Tech companies often employ **exposed** ducts and other materials in their office interiors.

## excess

*n.* an amount or quantity beyond what is acceptable, expected, or reasonable

*synonym*: exuberance, glut, surplus

(1) lose **excess** weight, (2) an **excess** of exports  
The road of **excess** leads to the palace of wisdom.

## dam

*n.* a wall constructed over a river to block the flow of water, mainly used to generate energy

*synonym*: barricade, barrier, embankment

(1) **dam-building** program, (2) **dam** collapsing

The break in the **dam** threatened the valley.

## machinery

*n.* a group of large machines or the components of a machine that make it work; social institution functions or structure for doing something

*synonym*: apparatus, appliance, equipment

(1) heavy **machinery**, (2) inactive **machinery**

The **machinery** of audit formally issued a business improvement order.

## dissipate

*v.* to disperse or scatter widely

*synonym*: scatter, disperse, evaporate

(1) **dissipate** heat, (2) **dissipate** stress

The fog **dissipated**, and the air cleared up.

## interact

*v.* to communicate or react with somebody

*synonym*: cooperate, combine, collaborate

(1) **interact** directly with customers, (2) **interact** with one another

He should **interact** more with his colleagues.

## radiate

*v.* to spread out or emit something, such as light or heat, in all directions

*synonym*: give off, scatter, beam

(1) **radiate** an aura, (2) **radiate** in all directions

Roads **radiate** from the famous building in the center of the city.

## fluorescence

*n.* the property of certain substances to absorb light at one wavelength and emit light at a longer wavelength, often producing a visible glow or color change; the visible light or color change resulting from this process

*synonym*: glow, luminescence, radiance

(1) **fluorescence** microscopy, (2) **fluorescence** labeling  
The **fluorescence** of the green dye made it easy to see the bacteria under the microscope.

## emit

v. to give off or send out something such as light, heat, sound, gas, etc.

*synonym*: give off, radiate, expel

(1) **emit** a gamma ray, (2) **emit** air pollution

During the unloading, the container box **emits** a clicking sound.

## spectrum

n. an ordered array of colors into which a light beam can be split

*synonym*: range, scale, spread

(1) a broad **spectrum** of opinion, (2) infrared **spectrum**

This device displayed the speech **spectrum** spectrographically.

## fluoresce

v. to emit visible light when exposed to certain sources of radiation, such as ultraviolet light; to glow or shine brightly

*synonym*: glow, radiate, luminesce

(1) **fluoresce** yellow, (2) **fluoresce** in the dark

The minerals in the rock **fluoresce** brightly under UV light.

## glow

v. to give out a steady, strong light

*synonym*: shine, radiate, beam

(1) **glow** a pale orange, (2) **glow** gold in the light

The sun was setting, and the sky **glowed** with beautiful colors.

## observe

v. to watch or notice something carefully, often to gather information or insights; to take note of something or someone; to celebrate or commemorate a special event or occasion

*synonym*: watch, monitor, scrutinize

(1) **observe** a tradition, (2) **observe** wildlife

It is important to **observe** safety procedures in the workplace to prevent accidents.

## accidental

*adj.* happening or existing by chance or unintentionally

*synonym*: inadvertent, fortuitous, coincidental

(1) **accidental** death, (2) cover **accidental** damage

This system prevents **accidental** deletion of data.

## discovery

*n.* the act or process of finding information, a place, or an object, or learning about something that was previously not known

*synonym*: finding, uncovering, detection

(1) a scientific **discovery**, (2) the great **discovery** of the century

Her research team made an important **discovery**.

## breakthrough

*n.* a sudden, dramatic, and important discovery or development that helps to improve a situation or provide an answer to a problem

*synonym*: advance, progress, innovation

(1) **breakthrough** in the negotiations, (2) **breakthrough** discovery

A technique called deep learning has led to **breakthroughs** in AI.

## monitor

*v.* to observe, check, and track the progress or quality of something over a period of time

*synonym*: proctor, check, observe

(1) **monitor** an exam, (2) **monitor** the data carefully

They used a special receiver to **monitor** police radio channels.

## ecosystem

*n.* all the plants and living creatures in an area and the way they affect each other and the environment

(1) marine **ecosystem**, (2) change the **ecosystem**

Human conservation efforts often fail unexpectedly because

they disturb the balance of the **ecosystem**.

## estimate

*v.* to guess or calculate the cost, size, value, etc. of something

*synonym*: calculate, gauge, evaluate

(1) **estimate** a fair value, (2) **estimate** this chicken to weigh three pounds

We **estimated** the season's total trade deficit at \$50 billion.

## foliage

*n.* the leaves of a plant or tree, especially in large quantities or as seen from a distance; natural greenery, often used for decorative purposes

*synonym*: leaves, greenery, flora

(1) colorful **foliage**, (2) autumn **foliage**

The vibrant **foliage** on the vines made the winery look even more beautiful.

## typical

*adj.* having the usual characteristics or traits of a specific group of things

*synonym*: characteristic, usual, distinctive

(1) **typical** leader, (2) fairly **typical** symptoms

This artwork is **typical** of her work.

## indicate

*v.* to show, point out, or make known something, often through a sign or a symbol; to suggest or imply something without stating it directly

*synonym*: hint, suggest, show

(1) **indicate** a preference, (2) **indicate** an error

The data **indicates** that the company's profits have steadily increased over the past quarter.

## unreliable

*adj.* not able to be trusted or depended on

*synonym*: inconsistent, erratic, undependable

(1) prove **unreliable**, (2) **unreliable** source of information

By incorrect assumption, statistics can be notoriously **unreliable**.

## contrast

v. to put in opposition to show or emphasize differences  
*synonym*: differ, vary, counterpoint

(1) **contrast** with a decade ago, (2) **contrast** two things  
It's intriguing to compare and **contrast** the two authors.

## infer

v. to form an opinion or conclude that something is true based on existing facts

*synonym*: guess, deduce, assume

(1) **infer** quality from price, (2) **infer** the possibility  
Animal desire and preference are always **inferred** from their behavior.

## release

v. to set free or allow to escape from confinement

*synonym*: free, let go, discharge

(1) **release** a prisoner, (2) **release** CO2 into the air  
The animal rights group worked to **release** the dolphins back into the wild.

## visible

adj. capable of being seen; or open to easy view

*synonym*: clear, observable, seeable

(1) **visible** stars, (2) **visible** by X-ray  
My home is easily **visible** from the shore.

## phytoplankton

n. tiny little plants that float on the surface of the water and on which sea creatures feed

(1) marine **phytoplankton**, (2) **phytoplankton** blooms  
She studies the relationship between marine creatures' toxicity and the **phytoplankton** they feed on.

## bloom

n. a flower, especially one having showy or colorful parts; the best time of youth

*synonym*: blossom, flush, flower

(1) **bloom** in autumn, (2) black-and-white **blooms**  
The cherry blossoms in the park were in full **bloom**.

## drought

- n.* a long period of time during which there is very little or no rain, leading to a shortage of water and often causing damage to crops and other vegetation

*synonym*: dryness, aridity, water shortage

- (1) periods of **drought**, (2) **drought** conditions

The region has been experiencing a severe **drought**, leading to water shortages and crop failures.

## investigate

- v.* to conduct a systematic or formal inquiry to identify and evaluate the facts of a crime, problem, statement, etc. to establish the truth

*synonym*: examine, analyze, look into

- (1) **investigate** the matter, (2) **investigate** a data leak

The committee **investigated** several apparent inconsistencies.

## gauge

- n.* an instrument for measuring and displaying the amount, level, or contents of something; (verb) to judge tentatively or form an estimate of something

*synonym*: measure, benchmark, judge

- (1) pressure **gauge**, (2) take the **gauge** of a situation

We use various precision **gauges** in the manufacturing process of machinery.

## silent

- adj.* without any or little sound

*synonym*: quiet, hushed, mute

- (1) **silent** reading, (2) give **silent** consent

The politician remained **silent** despite intense media scrutiny.

## Session 2: Spelling

- |                                 |  |
|---------------------------------|--|
| 1. di_____te stress             | <i>v.</i> to disperse or scatter widely  |
| 2. cr_____nd management         | <i>n.</i> land used for growing crops, typically for agricultural purposes   |
| 3. infrared sp_____um           | <i>n.</i> an ordered array of colors into which a light beam can be split  |
| 4. post re_____ly to a blog     | <i>adv.</i> at regular intervals or times  |
| 5. co_____e a large of alcohol  | <i>v.</i> to spend something, especially fuel, energy, or time, in a large amount  |
| 6. mo_____r an exam             | <i>v.</i> to observe, check, and track the progress or quality of something over a period of time                            |
| 7. or____n of information       | <i>n.</i> the first existence or beginning of something  |
| 8. toxic by_____cts             | <i>n.</i> a secondary or incidental product produced in the manufacture or synthesis of something else                       |
| 9. ge_____te more electricity   | <i>v.</i> to produce or create something; to make offspring by reproduction  |
| 10. mo_____r the data carefully | <i>v.</i> to observe, check, and track the progress or quality of something over a period of time                            |
| 11. marine ec_____em            | <i>n.</i> all the plants and living creatures in an area and the way they affect each other and the environment              |
| 12. ev_____en shrub             | <i>adj.</i> (of plants) retaining its leaves or foliage throughout the year; (figuratively) enduring, perennial, or constant |

ANSWERS: 1. dissipate, 2. cropland, 3. spectrum, 4. regularly, 5. consume, 6. monitor, 7. origin, 8. byproduct, 9. generate, 10. monitor, 11. ecosystem, 12. evergreen



- |                                     |   |
|-------------------------------------|---|
| 13. in__r the possibility           | <i>v.</i> to form an opinion or conclude that something is true based on existing facts   |
| 14. marine phy_____ton              | <i>n.</i> tiny little plants that float on the surface of the water and on which sea creatures feed   |
| 15. in____te a preference           | <i>v.</i> to show, point out, or make known something, often through a sign or a symbol; to suggest or imply something without stating it directly                    |
| 16. con_____on rate                 | <i>n.</i> the act or process of changing something from one thing to another; the state of being changed  |
| 17. notable in____ce                | <i>n.</i> a particular example or single occurrence of something  |
| 18. bre_____ugh in the negotiations | <i>n.</i> a sudden, dramatic, and important discovery or development that helps to improve a situation or provide an answer to a problem                              |
| 19. beam of el_____ons              | <i>n.</i> a tiny particle with the negative electrical charge   |
| 20. a ch_____al compound            | <i>adj.</i> relating to or connected with chemistry;  |
| 21. chemical re_____on              | <i>n.</i> a response that reveals a person's feelings or attitude; (in chemistry) a process in which one or more substances are changed into others                   |
| 22. two sp_____al bands             | <i>adj.</i> relating to or having the properties of a spectrum (= an ordered array of colors into which a light beam can be split); relating to a ghost or apparition |

ANSWERS: 13. infer, 14. phytoplankton, 15. indicate, 16. conversion, 17. instance, 18. breakthrough, 19. electron, 20. chemical, 21. reaction, 22. spectral

23. re____e CO2 into the air	<i>v.</i> to set free or allow to escape from confinement
24. e__t a gamma ray	<i>v.</i> to give off or send out something such as light, heat, sound, gas, etc.
25. the h_es of a rainbow	<i>n.</i> the quality of a color as determined by its dominant wavelength
26. ba____e his plan	<i>v.</i> to bewilder or perplex someone completely and to be unable to understand or explain something
27. prove unr____le	<i>adj.</i> not able to be trusted or depended on
28. em____e light	<i>v.</i> to emit, send out something; to express a quality or feeling
29. inactive ma____ry	<i>n.</i> a group of large machines or the components of a machine that make it work; social institution functions or structure for doing something
30. trigger a re____on	<i>n.</i> a response that reveals a person's feelings or attitude; (in chemistry) a process in which one or more substances are changed into others
31. in direct su____ht	<i>n.</i> the light emitted by the sun; the rays of the sun
32. my____y novel	<i>n.</i> something difficult to understand or explain; a secret or enigmatic quality that adds to the fascination or interest of something; a genre of fiction that involves the solution of a crime or a puzzle
33. st____re and function of the brain	<i>n.</i> the way of construction of something and the arrangement of its parts, or a complex thing constructed of many parts

ANSWERS: 23. release, 24. emit, 25. hue, 26. baffle, 27. unreliable, 28. emanate, 29. machinery, 30. reaction, 31. sunlight, 32. mystery, 33. structure

- |  |   |
|--|---|
| 34. change the ec_____em               | <i>n.</i> all the plants and living creatures in an area and the way they affect each other and the environment   |
| 35. give si___t consent                | <i>adj.</i> without any or little sound   |
| 36. sp_____al colors                   | <i>adj.</i> relating to or having the properties of a spectrum (= an ordered array of colors into which a light beam can be split); relating to a ghost or apparition   |
| 37. inland ba__n                       | <i>n.</i> a natural depression or valley that is circular or oval on the surface of the earth, especially one that has water in it; a container with a bowl form that is typically used to hold food or liquids |
| 38. combined ox__e                     | <i>n.</i> a chemical compound that contains at least one oxygen atom and one other element  |
| 39. a GPS sa_____te                    | <i>n.</i> an electronic device that is sent up into space and moves around the Earth or another planet, used for gathering information or communicating by radio, television, etc.                              |
| 40. the great di_____ry of the century | <i>n.</i> the act or process of finding information, a place, or an object, or learning about something that was previously not known   |
| 41. nutrient-de__e foods               | <i>adj.</i> containing a large number of people or something with little space between them   |
| 42. inv_____te the matter              | <i>v.</i> to conduct a systematic or formal inquiry to identify and evaluate the facts of a crime, problem, statement, etc. to establish the truth  |

ANSWERS: 34. ecosystem, 35. silent, 36. spectral, 37. basin, 38. oxide, 39. satellite, 40. discovery, 41. dense, 42. investigate

43. ab___e with passion	<i>adj.</i> on fire; burning brightly
44. pl___t like the Earth	<i>n.</i> any of the nine large celestial bodies that circle in the solar system; any celestial body that revolves around a star
45. d_m collapsing	<i>n.</i> a wall constructed over a river to block the flow of water, mainly used to generate energy
46. es_____te this chicken to weigh three pounds	<i>v.</i> to guess or calculate the cost, size, value, etc. of something
47. lose ex___s weight	<i>n.</i> an amount or quantity beyond what is acceptable, expected, or reasonable
48. in_____fy diplomatic efforts	<i>v.</i> to increase or make something increase in extent or strength
49. colorful fo_____e	<i>n.</i> the leaves of a plant or tree, especially in large quantities or as seen from a distance; natural greenery, often used for decorative purposes
50. ca___n emission	<i>n.</i> a chemical element that can be found in pure form as diamond or graphite, and it is also an essential part of coal and oil and is found in all plants and animals
51. ra_____e an aura	<i>v.</i> to spread out or emit something, such as light or heat, in all directions
52. flow of el_____ons	<i>n.</i> a tiny particle with the negative electrical charge
53. di_____te heat	<i>v.</i> to disperse or scatter widely
54. bl__m in autumn	<i>n.</i> a flower, especially one having showy or colorful parts; the best time of youth

ANSWERS: 43. ablaze, 44. planet, 45. dam, 46. estimate, 47. excess, 48. intensify, 49. foliage, 50. carbon, 51. radiate, 52. electron, 53. dissipate, 54. bloom

55. a meteorological sa_____te	<i>n.</i> an electronic device that is sent up into space and moves around the Earth or another planet, used for gathering information or communicating by radio, television, etc.
56. ty_____l leader	<i>adj.</i> having the usual characteristics or traits of a specific group of things
57. hum_____de climate change	<i>adj.</i> created or produced by humans; artificial
58. de__e forests	<i>adj.</i> containing a large number of people or something with little space between them
59. autumn fo_____e	<i>n.</i> the leaves of a plant or tree, especially in large quantities or as seen from a distance; natural greenery, often used for decorative purposes
60. co_____e electricity	<i>v.</i> to spend something, especially fuel, energy, or time, in a large amount
61. co_____st two things	<i>v.</i> to put in opposition to show or emphasize differences
62. silver ox__e	<i>n.</i> a chemical compound that contains at least one oxygen atom and one other element
63. e__t air pollution	<i>v.</i> to give off or send out something such as light, heat, sound, gas, etc.
64. tr_____rm an education system	<i>v.</i> to change in outward structure or looks;
65. in__r quality from price	<i>v.</i> to form an opinion or conclude that something is true based on existing facts

ANSWERS: 55. satellite, 56. typical, 57. human-made, 58. dense, 59. foliage, 60. consume, 61. contrast, 62. oxide, 63. emit, 64. transform, 65. infer

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|-----------------------------------|---|
| 66. in____te an error             | <i>v.</i> to show, point out, or make known something, often through a sign or a symbol; to suggest or imply something without stating it directly  |
| 67. acc_____al death              | <i>adj.</i> happening or existing by chance or unintentionally  |
| 68. take the ga__e of a situation | <i>n.</i> an instrument for measuring and displaying the amount, level, or contents of something; (verb) to judge tentatively or form an estimate of something  |
| 69. gl_____e level                | <i>n.</i> a type of sugar that is found in plants, especially fruit, and is an essential energy source in living things   |
| 70. ca____n dioxide               | <i>n.</i> a chemical element that can be found in pure form as diamond or graphite, and it is also an essential part of coal and oil and is found in all plants and animals   |
| 71. pr_____s improvement          | <i>n.</i> a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products |
| 72. mo_____le behavior            | <i>n.</i> a group of two or more atoms held together by attractive forces known as chemical bonds   |
| 73. ra_____e in all directions    | <i>v.</i> to spread out or emit something, such as light or heat, in all directions   |

ANSWERS: 66. indicate, 67. accidental, 68. gauge, 69. glucose, 70. carbon, 71. process, 72. molecule, 73. radiate

74. cover acc_____al damage	<i>adj.</i> happening or existing by chance or unintentionally
75. some une_____ed events	<i>adj.</i> not anticipated or regarded as likely to happen
76. con_____on therapy	<i>n.</i> the act or process of changing something from one thing to another; the state of being changed
77. cor_____nd to a standard	<i>v.</i> to match or be similar to something else almost exactly; to exchange messages
78. pathogenic ba_____ia	<i>n.</i> single-celled or noncellular spherical or spiral or rod-shaped organisms that exist in large numbers in the air, water, and soil, and also in living and dead creatures and plants, and are often a cause of disease
79. irrigated cr_____nd	<i>n.</i> land used for growing crops, typically for agricultural purposes
80. chl_____st DNA	<i>n.</i> a type of membrane-bound organelle that conducts photosynthesis in plant and algal cells.
81. re_____ly arranged	<i>adv.</i> at regular intervals or times
82. al__e biofuel	<i>n.</i> A simple plant that grows in or near water and lacks typical leaves and roots
83. a con_____ly innovative enterprise	<i>adv.</i> all the time
84. h_e change	<i>n.</i> the quality of a color as determined by its dominant wavelength
85. by_____ct of technology	<i>n.</i> a secondary or incidental product produced in the manufacture or synthesis of something else

ANSWERS: 74. accidental, 75. unexpected, 76. conversion, 77. correspond, 78. bacteria, 79. cropland, 80. chloroplast, 81. regularly, 82. algae, 83. constantly, 84. hue, 85. byproduct

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|-------------------------------|---|
| 86. flu_____nce labeling      | <i>n.</i> the property of certain substances to absorb light at one wavelength and emit light at a longer wavelength, often producing a visible glow or color change; the visible light or color change resulting from this process |
| 87. a scientific di_____ry    | <i>n.</i> the act or process of finding information, a place, or an object, or learning about something that was previously not known   |
| 88. em_____e happiness        | <i>v.</i> to emit, send out something; to express a quality or feeling  |
| 89. tr_____rm heat into power | <i>v.</i> to change in outward structure or looks;  |
| 90. a glare of su_____ht      | <i>n.</i> the light emitted by the sun; the rays of the sun   |
| 91. an ex_____d rock          | <i>adj.</i> having no protection or shield from something, such as bad weather, attack, or criticism  |
| 92. harmless ba_____ia        | <i>n.</i> single-celled or noncellular spherical or spiral or rod-shaped organisms that exist in large numbers in the air, water, and soil, and also in living and dead creatures and plants, and are often a cause of disease      |
| 93. si____t reading           | <i>adj.</i> without any or little sound   |
| 94. vi_____e by X-ray         | <i>adj.</i> capable of being seen; or open to easy view   |
| 95. s__n a document into PDF  | <i>v.</i> to examine something hastily, with the eyes or with a machine, to get information   |

ANSWERS: 86. fluorescence, 87. discovery, 88. emanate, 89. transform, 90. sunlight, 91. exposed, 92. bacteria, 93. silent, 94. visible, 95. scan



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|--|---|
| 96. decision-making pr____s            | <i>n.</i> a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products |
| 97. heavy ma_____ry                    | <i>n.</i> a group of large machines or the components of a machine that make it work; social institution functions or structure for doing something   |
| 98. chl_____ll pigment                 | <i>n.</i> any of a group of green pigments found in photosynthetic organisms  |
| 99. wav_____th of light                | <i>n.</i> the distance between two points in the same phase in consecutive cycles of a wave   |
| 100. in_____ct directly with customers | <i>v.</i> to communicate or react with somebody   |
| 101. fl_____ce in the dark             | <i>v.</i> to emit visible light when exposed to certain sources of radiation, such as ultraviolet light; to glow or shine brightly  |
| 102. phy_____ton blooms                | <i>n.</i> tiny little plants that float on the surface of the water and on which sea creatures feed   |
| 103. ev_____en classic                 | <i>adj.</i> (of plants) retaining its leaves or foliage throughout the year; (figuratively) enduring, perennial, or constant  |
| 104. co_____st with a decade ago       | <i>v.</i> to put in opposition to show or emphasize differences   |

ANSWERS: 96. process, 97. machinery, 98. chlorophyll, 99. wavelength, 100. interact, 101. fluoresce, 102. phytoplankton, 103. evergreen, 104. contrast

105. bacterial chl_____ll	<i>n.</i> any of a group of green pigments found in photosynthetic organisms
106. unr_____le source of information	<i>adj.</i> not able to be trusted or depended on
107. the worst hum_____de disaster	<i>adj.</i> created or produced by humans; artificial
108. dr_____t conditions	<i>n.</i> a long period of time during which there is very little or no rain, leading to a shortage of water and often causing damage to crops and other vegetation
109. ob_____e a tradition	<i>v.</i> to watch or notice something carefully, often to gather information or insights; to take note of something or someone; to celebrate or commemorate a special event or occasion
110. a convivial atm_____re	<i>n.</i> the mass of air that surrounds the Earth; the pervading tone or mood of a place, situation, or creative work
111. fairly ty_____l symptoms	<i>adj.</i> having the usual characteristics or traits of a specific group of things
112. inv_____te a data leak	<i>v.</i> to conduct a systematic or formal inquiry to identify and evaluate the facts of a crime, problem, statement, etc. to establish the truth
113. v__y directly with the price	<i>v.</i> to become different in terms of size, shape, etc.
114. es_____te a fair value	<i>v.</i> to guess or calculate the cost, size, value, etc. of something
115. oxygenic pho_____sis	<i>n.</i> the process through which plants and other organisms transform light energy into chemical energy, which is then released through cellular respiration to power the organism's activities.

ANSWERS: 105. chlorophyll, 106. unreliable, 107. human-made, 108. drought, 109. observe, 110. atmosphere, 111. typical, 112. investigate, 113. vary, 114. estimate, 115. photosynthesis

116. black-and-white bl__ms	<i>n.</i>	a flower, especially one having showy or colorful parts; the best time of youth
117. cor_____nd with a foreign student	<i>v.</i>	to match or be similar to something else almost exactly; to exchange messages
118. d_m-building program	<i>n.</i>	a wall constructed over a river to block the flow of water, mainly used to generate energy
119. v__y according to the age	<i>v.</i>	to become different in terms of size, shape, etc.
120. process of pho_____sis	<i>n.</i>	the process through which plants and other organisms transform light energy into chemical energy, which is then released through cellular respiration to power the organism's activities.
121. vi_____e stars	<i>adj.</i>	capable of being seen; or open to easy view
122. a con_____ly varying mind	<i>adv.</i>	all the time
123. the st_____re of a machine	<i>n.</i>	the way of construction of something and the arrangement of its parts, or a complex thing constructed of many parts
124. blue al__e	<i>n.</i>	A simple plant that grows in or near water and lacks typical leaves and roots
125. in_____fy a good relationship	<i>v.</i>	to increase or make something increase in extent or strength
126. blood gl_____e test	<i>n.</i>	a type of sugar that is found in plants, especially fruit, and is an essential energy source in living things

ANSWERS: 116. bloom, 117. correspond, 118. dam, 119. vary, 120. photosynthesis, 121. visible, 122. constantly, 123. structure, 124. algae, 125. intensify, 126. glucose

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|----------------------------------|---|
| 127. in____ct with one another   | <i>v.</i> to communicate or react with somebody   |
| 128. an une_____ed visitor       | <i>adj.</i> not anticipated or regarded as likely to happen   |
| 129. periods of dr____t          | <i>n.</i> a long period of time during which there is very little or no rain, leading to a shortage of water and often causing damage to crops and other vegetation   |
| 130. ob____e wildlife            | <i>v.</i> to watch or notice something carefully, often to gather information or insights; to take note of something or someone; to celebrate or commemorate a special event or occasion  |
| 131. fl_____ce yellow            | <i>v.</i> to emit visible light when exposed to certain sources of radiation, such as ultraviolet light; to glow or shine brightly  |
| 132. flu_____nce microscopy      | <i>n.</i> the property of certain substances to absorb light at one wavelength and emit light at a longer wavelength, often producing a visible glow or color change; the visible light or color change resulting from this process |
| 133. small mo____les             | <i>n.</i> a group of two or more atoms held together by attractive forces known as chemical bonds   |
| 134. sky ab___e with stars       | <i>adj.</i> on fire; burning brightly   |
| 135. ab___b energy               | <i>v.</i> to take in a fluid or other substance gradually   |
| 136. a broad sp____um of opinion | <i>n.</i> an ordered array of colors into which a light beam can be split   |

ANSWERS: 127. interact, 128. unexpected, 129. drought, 130. observe, 131. fluoresce, 132. fluorescence, 133. molecule, 134. ablaze, 135. absorb, 136. spectrum

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|---------------------------------------|---|
| 137. unsolved my____y                 | <i>n.</i> something difficult to understand or explain; a secret or enigmatic quality that adds to the fascination or interest of something; a genre of fiction that involves the solution of a crime or a puzzle |
| 138. chl_____st protein               | <i>n.</i> a type of membrane-bound organelle that conducts photosynthesis in plant and algal cells.   |
| 139. long-wav_____th laser            | <i>n.</i> the distance between two points in the same phase in consecutive cycles of a wave   |
| 140. bre_____ugh discovery            | <i>n.</i> a sudden, dramatic, and important discovery or development that helps to improve a situation or provide an answer to a problem  |
| 141. ba___e outside noises            | <i>v.</i> to bewilder or perplex someone completely and to be unable to understand or explain something   |
| 142. an ex___s of exports             | <i>n.</i> an amount or quantity beyond what is acceptable, expected, or reasonable  |
| 143. carbon dioxide in the atm_____re | <i>n.</i> the mass of air that surrounds the Earth; the pervading tone or mood of a place, situation, or creative work  |
| 144. save the pl___t                  | <i>n.</i> any of the nine large celestial bodies that circle in the solar system; any celestial body that revolves around a star  |
| 145. g__w gold in the light           | <i>v.</i> to give out a steady, strong light  |

ANSWERS: 137. mystery, 138. chloroplast, 139. wavelength, 140. breakthrough, 141. baffle, 142. excess, 143. atmosphere, 144. planet, 145. glow

- |                                       |   |
|---------------------------------------|---|
| 146. toxic ch____als                  | <i>adj.</i> relating to or connected with chemistry;  |
| 147. the hydrogen binds the ox____n   | <i>n.</i> the chemical element with the symbol O that is present in air and water and is necessary for people, animals, and plants to live  |
| 148. pressure ga__e                   | <i>n.</i> an instrument for measuring and displaying the amount, level, or contents of something; (verb) to judge tentatively or form an estimate of something  |
| 149. for in____ce                     | <i>n.</i> a particular example or single occurrence of something  |
| 150. ex____d to radiation             | <i>adj.</i> having no protection or shield from something, such as bad weather, attack, or criticism  |
| 151. the ba__n of the Great Salt Lake | <i>n.</i> a natural depression or valley that is circular or oval on the surface of the earth, especially one that has water in it; a container with a bowl form that is typically used to hold food or liquids |
| 152. s__n the face of the man         | <i>v.</i> to examine something hastily, with the eyes or with a machine, to get information   |
| 153. lack of ox____n                  | <i>n.</i> the chemical element with the symbol O that is present in air and water and is necessary for people, animals, and plants to live  |
| 154. ab____b a shock                  | <i>v.</i> to take in a fluid or other substance gradually   |

ANSWERS: 146. chemical, 147. oxygen, 148. gauge, 149. instance, 150. exposed, 151. basin, 152. scan, 153. oxygen, 154. absorb

- |                             |   |
|-----------------------------|---|
| 155. re____e a prisoner     | <i>v.</i> to set free or allow to escape from confinement                   |
| 156. g__w a pale orange     | <i>v.</i> to give out a steady, strong light                                |
| 157. ge____te \$100 a month | <i>v.</i> to produce or create something; to make offspring by reproduction |
| 158. racial or____n         | <i>n.</i> the first existence or beginning of something                     |

ANSWERS: 155. release, 156. glow, 157. generate, 158. origin

## Session 3: Fill in the Blanks

1. She studies the relationship between marine creatures' toxicity and the \_\_\_\_\_ they feed on.  
*n.* tiny little plants that float on the surface of the water and on which sea creatures feed
2. This device displayed the speech \_\_\_\_\_ spectrographically.  
*n.* an ordered array of colors into which a light beam can be split
3. \_\_\_\_\_ has jammed the inlet to the water turbine.  
*n.* A simple plant that grows in or near water and lacks typical leaves and roots
4. The \_\_\_\_\_ rainstorm caused the collapse of the corral.  
*adj.* not anticipated or regarded as likely to happen
5. It's intriguing to compare and \_\_\_\_\_ the two authors.  
*v.* to put in opposition to show or emphasize differences
6. There was a chemical \_\_\_\_\_ of the lime with the groundwater.  
*n.* a response that reveals a person's feelings or attitude; (in chemistry) a process in which one or more substances are changed into others
7. There are various hypotheses concerning the \_\_\_\_\_ of life.  
*n.* the first existence or beginning of something
8. In \_\_\_\_\_ plants use carbon dioxide to feed themselves.  
*n.* the process through which plants and other organisms transform light energy into chemical energy, which is then released through cellular respiration to power the organism's activities.

ANSWERS: 1. phytoplankton, 2. spectrum, 3. Algae, 4. unexpected, 5. contrast, 6. reaction, 7. origin, 8. photosynthesis,



9. Trees absorb \_\_\_\_\_ dioxide and give off oxygen.
- n.* a chemical element that can be found in pure form as diamond or graphite, and it is also an essential part of coal and oil and is found in all plants and animals
10. The \_\_\_\_\_ for applying for a visa can be lengthy and complicated.
- n.* a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products
11. We \_\_\_\_\_ the season's total trade deficit at \$50 billion.
- v.* to guess or calculate the cost, size, value, etc. of something
12. The \_\_\_\_\_ surrounding the disappearance of the traveler has yet to be solved by authorities.
- n.* something difficult to understand or explain; a secret or enigmatic quality that adds to the fascination or interest of something; a genre of fiction that involves the solution of a crime or a puzzle
13. She stood on the podium and \_\_\_\_\_ an audience.
- v.* to examine something hastily, with the eyes or with a machine, to get information
14. The bridge is a \_\_\_\_\_ structure and was built to span the river.
- adj.* created or produced by humans; artificial
15. The paradox \_\_\_\_\_ most philosophers.
- v.* to bewilder or perplex someone completely and to be unable to understand or explain something

ANSWERS: 9. carbon, 10. process, 11. estimated, 12. mystery, 13. scanned, 14. human-made, 15. baffled

16. \_\_\_\_\_ membranes are incredibly vulnerable to damage by oxygen radicals produced as a byproduct of photochemistry.  
*n.* a type of membrane-bound organelle that conducts photosynthesis in plant and algal cells.
17. The mobile application industry is \_\_\_\_\_ changing.  
*adv.* all the time
18. The politician remained \_\_\_\_\_ despite intense media scrutiny.  
*adj.* without any or little sound
19. The animal rights group worked to \_\_\_\_\_ the dolphins back into the wild.  
*v.* to set free or allow to escape from confinement
20. The region has been experiencing a severe \_\_\_\_\_ leading to water shortages and crop failures.  
*n.* a long period of time during which there is very little or no rain, leading to a shortage of water and often causing damage to crops and other vegetation
21. The passenger grabbed for the \_\_\_\_\_ mask.  
*n.* the chemical element with the symbol O that is present in air and water and is necessary for people, animals, and plants to live
22. Human conservation efforts often fail unexpectedly because they disturb the balance of the \_\_\_\_\_.  
*n.* all the plants and living creatures in an area and the way they affect each other and the environment
23. To achieve a warmer \_\_\_\_\_ add orange paint.  
*n.* the quality of a color as determined by its dominant wavelength

ANSWERS: 16. Chloroplast, 17. constantly, 18. silent, 19. release, 20. drought, 21. oxygen, 22. ecosystem, 23. hue,

24. This system prevents \_\_\_\_\_ deletion of data.

*adj.* happening or existing by chance or unintentionally

25. This artwork is \_\_\_\_\_ of her work.

*adj.* having the usual characteristics or traits of a specific group of things

26. We use various precision \_\_\_\_\_ in the manufacturing process of machinery.

*n.* an instrument for measuring and displaying the amount, level, or contents of something; (verb) to judge tentatively or form an estimate of something

27. The blood's red coloring comes from iron \_\_\_\_\_.

*n.* a chemical compound that contains at least one oxygen atom and one other element

28. The shape of the DNA \_\_\_\_\_ is a double helix.

*n.* a group of two or more atoms held together by attractive forces known as chemical bonds

29. These articles cite five \_\_\_\_\_ of climate change.

*n.* a particular example or single occurrence of something

30. The fog \_\_\_\_\_ and the air cleared up.

*v.* to disperse or scatter widely

31. The sponge \_\_\_\_\_ water well.

*v.* to take in a fluid or other substance gradually

32. The spaceship began to burn up as it approached the Earth's \_\_\_\_\_.

*n.* the mass of air that surrounds the Earth; the pervading tone or mood of a place, situation, or creative work

ANSWERS: 24. accidental, 25. typical, 26. gauges, 27. oxide, 28. molecule, 29. instances, 30. dissipated, 31. absorbs, 32. atmosphere

33. The entire mountain is covered in \_\_\_\_\_ rainforest.

*adj.* containing a large number of people or something with little space between them

34. The organizational \_\_\_\_\_ of start-ups is often flat and straightforward.

*n.* the way of construction of something and the arrangement of its parts, or a complex thing constructed of many parts

35. The \_\_\_\_\_ analysis revealed unexpected details about the composition of the planet's atmosphere.

*adj.* relating to or having the properties of a spectrum (= an ordered array of colors into which a light beam can be split); relating to a ghost or apparition

36. The vibrant \_\_\_\_\_ on the vines made the winery look even more beautiful.

*n.* the leaves of a plant or tree, especially in large quantities or as seen from a distance; natural greenery, often used for decorative purposes

37. The government has set aside a large area of \_\_\_\_\_ for agricultural research.

*n.* land used for growing crops, typically for agricultural purposes

38. The firm has grown into a large \_\_\_\_\_ manufacturing.

*adj.* relating to or connected with chemistry;

39. The minerals in the rock \_\_\_\_\_ brightly under UV light.

*v.* to emit visible light when exposed to certain sources of radiation, such as ultraviolet light; to glow or shine brightly

40. The \_\_\_\_\_ of the green dye made it easy to see the bacteria under the microscope.

*n.* the property of certain substances to absorb light at one wavelength and emit light at a longer wavelength, often producing a visible glow or color change; the visible light or color change resulting from this process

ANSWERS: 33. dense, 34. structure, 35. spectral, 36. foliage, 37. cropland, 38. chemical, 39. fluoresce, 40. fluorescence

41. It is important to \_\_\_\_\_ safety procedures in the workplace to prevent accidents.
- v.* to watch or notice something carefully, often to gather information or insights; to take note of something or someone; to celebrate or commemorate a special event or occasion
42. Rebels have pledged to \_\_\_\_\_ the armed struggle against the dictatorship.
- v.* to increase or make something increase in extent or strength
43. The committee \_\_\_\_\_ several apparent inconsistencies.
- v.* to conduct a systematic or formal inquiry to identify and evaluate the facts of a crime, problem, statement, etc. to establish the truth
44. Her research team made an important \_\_\_\_\_.
- n.* the act or process of finding information, a place, or an object, or learning about something that was previously not known
45. The road of \_\_\_\_\_ leads to the palace of wisdom.
- n.* an amount or quantity beyond what is acceptable, expected, or reasonable
46. The fragrance of flowers \_\_\_\_\_ from the garden.
- v.* to emit, send out something; to express a quality or feeling
47. Launching an artificial \_\_\_\_\_ contributed to the technological development of our country.
- n.* an electronic device that is sent up into space and moves around the Earth or another planet, used for gathering information or communicating by radio, television, etc.
48. The building was \_\_\_\_\_ with fire.
- adj.* on fire; burning brightly

ANSWERS: 41. observe, 42. intensify, 43. investigated, 44. discovery, 45. excess, 46. emanated, 47. satellite, 48. ablaze

49. White color is made up of many different \_\_\_\_\_ of light.

- n.* the distance between two points in the same phase in consecutive cycles of a wave

50. My father's death \_\_\_\_\_ my life completely.

- v.* to change in outward structure or looks;

51. A technique called deep learning has led to \_\_\_\_\_ in AI.

- n.* a sudden, dramatic, and important discovery or development that helps to improve a situation or provide an answer to a problem

52. The \_\_\_\_\_ trees in the forest stay green all year round.

- adj.* (of plants) retaining its leaves or foliage throughout the year; (figuratively) enduring, perennial, or constant

53. Many of the lakes and marshes in the \_\_\_\_\_ are mildly salty.

- n.* a natural depression or valley that is circular or oval on the surface of the earth, especially one that has water in it; a container with a bowl form that is typically used to hold food or liquids

54. My home is easily \_\_\_\_\_ from the shore.

- adj.* capable of being seen; or open to easy view

55. Roads \_\_\_\_\_ from the famous building in the center of the city.

- v.* to spread out or emit something, such as light or heat, in all directions

56. The \_\_\_\_\_ of the energy production process is a large amount of carbon dioxide emissions.

- n.* a secondary or incidental product produced in the manufacture or synthesis of something else

ANSWERS: 49. wavelengths, 50. transformed, 51. breakthroughs, 52. evergreen, 53. basin, 54. visible, 55. radiate, 56. byproduct

57. Mercury is the closest \_\_\_\_\_ to the sun.

- n.* any of the nine large celestial bodies that circle in the solar system; any celestial body that revolves around a star

58. They used a special receiver to \_\_\_\_\_ police radio channels.

- v.* to observe, check, and track the progress or quality of something over a period of time

59. The \_\_\_\_\_ of audit formally issued a business improvement order.

- n.* a group of large machines or the components of a machine that make it work; social institution functions or structure for doing something

60. He should \_\_\_\_\_ more with his colleagues.

- v.* to communicate or react with somebody

61. The doctor injected \_\_\_\_\_ into his patient's veins.

- n.* a type of sugar that is found in plants, especially fruit, and is an essential energy source in living things

62. This site \_\_\_\_\_ shares high-quality academic materials.

- adv.* at regular intervals or times

63. Maximum heart rates \_\_\_\_\_ a lot for each individual.

- v.* to become different in terms of size, shape, etc.

64. The economic stimulation program would \_\_\_\_\_ a lot of new jobs.

- v.* to produce or create something; to make offspring by reproduction

65. The break in the \_\_\_\_ threatened the valley.

- n.* a wall constructed over a river to block the flow of water, mainly used to generate energy

ANSWERS: 57. planet, 58. monitor, 59. machinery, 60. interact, 61. glucose, 62. regularly, 63. vary, 64. generate, 65. dam

66. A smaller car will \_\_\_\_\_ less fuel.

*v.* to spend something, especially fuel, energy, or time, in a large amount

67. The outermost \_\_\_\_\_ shell determines the chemical properties of an atom.

*n.* a tiny particle with the negative electrical charge

68. The numbers on the sign \_\_\_\_\_ to points on the map.

*v.* to match or be similar to something else almost exactly; to exchange messages

69. \_\_\_\_\_ utilizes sunlight to create sugars.

*n.* any of a group of green pigments found in photosynthetic organisms

70. \_\_\_\_\_ prevalent in hospitals are often resistant to antibiotics.

*n.* single-celled or noncellular spherical or spiral or rod-shaped organisms that exist in large numbers in the air, water, and soil, and also in living and dead creatures and plants, and are often a cause of disease

71. The cherry blossoms in the park were in full \_\_\_\_\_.

*n.* a flower, especially one having showy or colorful parts; the best time of youth

72. During the unloading, the container box \_\_\_\_\_ a clicking sound.

*v.* to give off or send out something such as light, heat, sound, gas, etc.

73. The developer's \_\_\_\_\_ of the old factory into a modern loft apartment complex was a major success.

*n.* the act or process of changing something from one thing to another; the state of being changed

74. Radiation from \_\_\_\_\_ has a different wavelength.

*n.* the light emitted by the sun; the rays of the sun

ANSWERS: 66. consume, 67. electron, 68. correspond, 69. Chlorophyll, 70. Bacteria, 71. bloom, 72. emits, 73. conversion, 74. sunlight



75. The data \_\_\_\_\_ that the company's profits have steadily increased over the past quarter.
- v. to show, point out, or make known something, often through a sign or a symbol; to suggest or imply something without stating it directly
76. Tech companies often employ \_\_\_\_\_ ducts and other materials in their office interiors.
- adj. having no protection or shield from something, such as bad weather, attack, or criticism
77. By incorrect assumption, statistics can be notoriously \_\_\_\_\_.
- adj. not able to be trusted or depended on
78. The sun was setting, and the sky \_\_\_\_\_ with beautiful colors.
- v. to give out a steady, strong light
79. Animal desire and preference are always \_\_\_\_\_ from their behavior.
- v. to form an opinion or conclude that something is true based on existing facts

ANSWERS: 75. indicates, 76. exposed, 77. unreliable, 78. glowed, 79. inferred