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Vocabulary Builder Reference from...

Miho Janvier: Lessons from a solar storm chaser |

TED Talk

https://www.ted.com/talks/miho_janvier_lessons_from_a_solar_storm_chaser

All Words

IMPORTANT

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Session 1: Word List

weird

adj. extraordinary, unexpected, or difficult to explain

synonym : bizarre, creepy, peculiar

(1) a **weird** dress, (2) the state of being **weird**

My computer has been acting **weird** recently.

zombie

n. a dead body that has been brought back to life by a supernatural force; someone who acts or responds in a mechanical or apathetic way

synonym : living dead, ghost, machine

(1) **zombie** bank, (2) **zombie** movie

If you don't get a good night's sleep, you will become a **zombie** at work.

apocalyptic

adj. describing severe damage and destruction in past or future events, or the end of the world

synonym : fateful, prophetic, ominous

(1) **apocalyptic** event, (2) have **apocalyptic** overtones

The **apocalyptic** landscape of burnt-out villages and bombed-out ruins spread out before them.

province

n. the territory occupied by one of the constituent administrative districts of a nation

synonym : area, section, region

(1) Bengal **province**, (2) home **province**

A network of railways has developed over the **province**.

grid

n. a pattern of regularly spaced horizontal and vertical lines; a system of high tension cables by which electrical power is distributed throughout a region

synonym: gridiron, battery grid, power system

(1) a **grid** design, (2) a wire **grid**

Grid pattern roads often appear in urban areas.

culprit

n. someone who is responsible for a crime or wrongdoing

synonym: criminal, felon, fugitive

(1) the **culprit** of global warming, (2) the arrest of the **culprit**

They finally found the **culprit** of the bug after a long time.

solar

adj. of, from, or relating to the sun

(1) the **solar** system, (2) a **solar** eclipse

Solar panels have greatly improved not only in performance but also in durability.

giant

adj. enormous; much bigger or more important than similar items usually are

synonym: big, gigantic, huge

(1) **giant** trees, (2) **giant** tech company

The **giant** jets gradually dominate the world's airlines.

particle

n. a small piece of something; a word or piece of a term with grammatical function but little or no significance

synonym: atom, grain, bit

(1) charged **particle**, (2) **particle** energy

We can calculate the position of the **particles** statistically.

constant

adj. happening repeatedly or all the time

synonym: ceaseless, stable, unchanging

(1) a **constant** wind, (2) a **constant** temperature

Constant dropping wears away the stone.

physicist

n. a scientist who specializes in the field of physics

(1) talented **physicist**, (2) theoretical **physicist**

Einstein was an outstanding and famous **physicist** of the 20th century.

tremendous

adj. very great in degree or extent or amount or impact; extremely good

synonym: enormous, giant, immense

(1) **tremendous** amount, (2) **tremendous** popularity

We had a **tremendous** time yesterday.

chase

v. to pursue something or someone to catch or capture them; to go after something vigorously or with determination; (noun) a pursuit or a hunt; a narrow groove or channel cut into a surface, often used for decorative purposes

synonym: pursue, hunt, track

(1) **chase** a dream, (2) wild goose **chase**

The police officer **chased** the suspect through the crowded streets until they finally caught him.

aim

v. to try or plan to get or achieve something

synonym: aspire, direct, target

(1) **aim** at a specific target, (2) **aim** to be a nurse

We **aim** for an overseas expansion.

mitigate

v. to make less severe or less intense; to alleviate or lessen the adverse effects of something

synonym: alleviate, relieve, reduce

(1) **mitigate** risk, (2) **mitigate** a natural disaster

Efforts to **mitigate** the effects of climate change require a coordinated and sustained effort by governments, businesses, and individuals.

probe

n. a tool used for testing or examining, especially for medical or scientific purposes, or an exploratory mission to a planet or other celestial body; (verb) to investigate,

examine, or search into something

synonym: investigation, inquiry, examination

(1) a lunar **probe**, (2) **probe** for inside information

NASA sent a **probe** to study the atmosphere of Jupiter.

rev

n. a measure of the rate at which an engine or motor rotates, often expressed in revolutions per minute (RPM); (verb) to increase the number of rotations per minute

synonym: revolution, RPM, speed

(1) low- **rev** engine, (2) **rev** up the crowd

He stepped on the gas pedal, and the engine released a loud **rev**.

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.

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.

stream

n. a small, narrow river; a continuous flow of something, such as liquid, gas, people, vehicles, etc.

synonym: flow, current, brook

(1) the **stream** of time, (2) an endless **stream** of cars

Jet **streams** are the common name for air currents that form high in the atmosphere.

hurricane

n. a violent, tropical, cyclonic storm of the western North Atlantic, having wind speeds of or over 64 knots (74 miles per hour)

synonym : cyclone, typhoon, storm

(1) a **hurricane** of applause, (2) the ravages of a **hurricane**

The devastating **hurricane** caused widespread damage and left many people homeless.

perturb

v. to disturb or agitate someone or something, causing feelings of anxiety or unease; to throw something into a state of chaos or disorder

synonym : disturb, agitate, unsettle

(1) **perturb** emotions, (2) **perturb** the peace

The loud music from the party next door is starting to **perturb** me.

environment

n. the natural world such as air, water, and land in which humans, animals, and plants live

synonym : atmosphere, surroundings, climate

(1) **environment** affairs, (2) chaotic **environment**

Every human is responsible for taking care of the Earth's **environment**.

Jovian

adj. relating to Jupiter or its characteristics

synonym : Jupiter, giant planet

(1) **Jovian** satellites, (2) **Jovian** planet

The **Jovian** moon Europa is believed to have an ocean beneath its icy surface.

shield

n. a protective covering or structure, especially in the past, that soldiers held in front of their bodies to protect themselves

synonym : guard, protection, safeguard

(1) a heat **shield**, (2) a **shield** for protecting against a bullet

Lead is an effective **shield** against X-rays, gamma rays, and other harmful radiation.

magnetic

adj. having the properties of attracting or repelling certain materials containing iron or steel

synonym : attractive, drawing, hypnotic

(1) **magnetic** field, (2) a **magnetic** tape

The **magnetic** force of the earth keeps our planet spinning.

bubble

n. a thin, round, and often transparent mass of gas that is surrounded by a thin layer of liquid; a state of economic or social prosperity that is unsustainable and eventually collapses

synonym : blob, balloon, mania

(1) **bubble** in the champagne glass, (2) economic **bubble**

Many people worry that the current real estate market is a **bubble** that could burst soon.

magnetosphere

n. the region of space surrounding a planet or other celestial body in which its magnetic field dominates the interplanetary field; this region acts as a shield, protecting the body from the effects of solar wind and other energetic particles

synonym : magnetic field, magnetic shield

(1) **magnetosphere** boundary, (2) solar **magnetosphere**

The Earth's **magnetosphere** protects us from harmful solar radiation.

nonetheless

adv. in spite of what has just been said or done; nevertheless

synonym : nevertheless, regardless, still

(1) we are **nonetheless** confident, (2) love him

nonetheless

They each choose **nonetheless** to battle.

responsible

adj. answerable or accountable for something within one's power, control, or management

synonym : accountable, answerable, liable

(1) **responsible** action, (2) **responsible** for a customer service

She's a **responsible** pet owner who ensures her dog gets enough exercise and a healthy diet.

disrupt

v. to prevent or stop something, especially an event, activity, or process, from continuing in the usual way by causing a problem or disturbance

synonym : interrupt, disturb, break into

(1) **disrupt** a well-ordered condition, (2) **disrupt** sleep
I'm so sorry to **disrupt** you when you're pretty busy.

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.

telecom

n. (a shortened form of telecommunications) the communication of information over long distances through various means such as phones, television, radio, and the internet

synonym : communication, telecommunications, telephony

(1) **telecom** industry, (2) **telecom** service providers
The **telecom** company is planning to launch a new smartphone next month.

navigation

n. the act of directing a ship or airplane from place to place; advice or information intended to resolve a problem or challenge, especially as given by someone in authority

synonym : sailing, seafaring, pilotage

(1) **navigation** system, (2) visual **navigation**
The plane's **navigation** system had problems, which mechanics found.

transmission

n. the act or process of sending something from one person or place to another; the process of broadcasting over the airwaves, as in radio or television

synonym : transportation, communication, broadcast

(1) **transmission** speed, (2) the **transmission** gears of a car

Education is the **transmission** of civilization.

rely

v. to require a specific thing or the assistance and support of someone or something to continue, run properly, or succeed.

synonym: depend, count, lean

(1) **rely** on convenience stores, (2) **rely** entirely on him
Babies heavily **rely** on others for food.

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.

complexity

n. the state or quality of being complicated or intricate and difficult to understand

synonym: intricacy, sophistication, elaboration

(1) cognitive **complexity**, (2) **complexity** theory
The project's **complexity** made it difficult for the team to complete it on time.

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.

verge

n. the point at which something is about to happen or where something begins; the edge or margin of something, particularly a physical boundary or border

synonym : brink, edge, margin

(1) **verge** of bankruptcy, (2) on the **verge** of tears

He stood on the **verge** of a major discovery.

erupt

v. (of a volcano) to become active and eject rocks, smoke, etc.; to start abruptly and violently

synonym : eject, emit, burst

(1) **erupt** in anger, (2) **erupt** into tears

Battles between whites and blacks **erupted** immediately.

unfortunately

adv. by bad luck; unluckily

synonym : regrettably, unluckily, alas

(1) **unfortunately** caught in a shower, (2) even more **unfortunately**

The treatments were done but, **unfortunately**, were unsuccessful.

scorch

v. to burn the surface of something, usually accidentally, with a hot iron or flame

synonym : char, burn, singe

(1) **scorch** your clothes, (2) careful not to **scorch**

The sun **scorched** the desert, making it uninhabitable.

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**.

temperature

n. the degree of hotness or coldness of a thing or place

synonym : climate, warmth, degree

(1) extreme **temperatures**, (2) the atmospheric **temperature**

Cities around the world set records for highest **temperatures**

this summer.

degree

n. a unit of measurement for angles, temperature, or level of proficiency or achievement; a rank or level of academic or professional attainment

synonym : level, qualification, diploma

(1) bachelor's **degree**, (2) **degree** centigrade

She received her **degree** in psychology from the university.

Kelvin

n. a unit of measurement for temperature in the International System of Units (SI), which starts at absolute zero, the theoretical lowest limit of temperature, and named after the British physicist William Thomson, also known as Lord Kelvin

synonym : K, degree

(1) **Kelvin** scale, (2) **Kelvin** measurement

The scientist cooled the sample to just a couple of **Kelvin** to observe quantum effects.

simulate

v. to make a pretense of someone's behavior or looks; to reproduce something that exists in real life using computers, models, etc., usually for study or training purposes

synonym : pretend, imitate, mimic

(1) **simulate** climate change, (2) **simulate** a future scenario

He had painted the wood to **simulate** stone.

analyze

v. to think about in-depth and evaluate to discover essential features or meaning

synonym : explore, examine, investigate

(1) **analyze** a chemical compound, (2) **analyze** your real motives

The teacher attempted to **analyze** the root cause of our mistake.

predict

v. to state beforehand that something will happen in the future, mainly based on knowledge or experience

synonym :

forecast, anticipate, foresee

(1) **predict** the future, (2) **predict** when she will arrive
It's notoriously challenging to **predict** birth rates.

inevitably

adv. in a manner that cannot be avoided or prevented
synonym: unavoidably, necessarily, surely

(1) **inevitably** decline with age, (2) **inevitably** reach the consumer

Because of his excellent performance, he will **inevitably** be promoted.

encounter

v. to face something, particularly something unpleasant or difficult, while attempting to do something else; to meet, especially unexpectedly

synonym: meet, run into, come across

(1) **encounter** a crisis, (2) **encounter** a storm

I'm prepared to **encounter** challenges throughout this adventure.

Venus

n. the planet second in order from the sun

(1) **Venus** orbiter, (2) surface of **Venus**

They launched a rocket toward **Venus**.

mercury

n. a heavy, silvery-white metal that is liquid at room temperature and is used in thermometers, electrical equipment, and other devices; (Mercury) the smallest planet and the nearest to the sun

synonym: quicksilver, hydrargyrum, Hg

(1) **mercury** poisoning, (2) **Mercury** Plan

The **mercury** in the thermometer had risen to the boiling point.

comet

n. a celestial object consisting of a nucleus of ice and dust that goes around the sun

synonym: meteor, asteroid, meteoroid

(1) the surface of the **comet**, (2) **comet** Halley

The **comet's** bright tail could be seen in the night sky.

endeavor

v. to make an earnest attempt or effort; to strive or work hard towards a goal or objective

synonym: attempt, strive, undertake

(1) **endeavor** to succeed, (2) **endeavor** as much as possible

We will **endeavor** to find a solution to the problem as quickly as possible.

cosmic

adj. relating to the universe or cosmos; vast or limitless

synonym: astronomical, celestial, outer-space

(1) second **cosmic** velocity, (2) **cosmic** background radiation

Cosmic rays are high-energy particles that originate from outside the solar system.

meteorology

n. the branch of science that deals with processes in the Earth's atmosphere that cause weather conditions

(1) agricultural **meteorology**, (2) marine **meteorology**

He conducted his research at the **meteorology** laboratory using large-scale computing.

evolution

n. a gradual process of transformation of living things

synonym: elaboration, expansion, transition

(1) human **evolution**, (2) **evolution** theory

They study the **evolution** of the universe.

locate

v. to specify or determine the exact position of someone or something

synonym: discover, find, place

(1) **locate** a missing pet, (2) **locate** a tumor

The robot can accurately **locate** construction material.

generic

adj. not specific; not linked to a particular brand or product

synonym: common, ordinary, typical

(1) a **generic** product, (2) **generic** version

The **generic** aspirin brand was just as effective as the name brand but much cheaper.

evolve

v. to develop gradually, or to cause the development of something or someone gradually

synonym: develop, mature, grow

(1) **evolve**, (2) **evolve** over the past decade

Eyeless fish **evolved** in dark caves.

pale

adj. having skin that is very light colored; lacking in vitality or interest or effectiveness

synonym: sallow, faint, ashen

(1) a **pale** complexion, (2) **pale** pink

She turned **pale** when she heard the news.

dot

n. a very small circular mark, especially one that is printed

synonym: drop, dab, fleck

(1) connecting the **dots**, (2) **dot** blot method

The wallpaper had a pattern of pink **dots** on a white surface.

invisible

adj. impossible or nearly impossible to see

synonym: hidden, imperceptible, unseen

(1) an **invisible** asset, (2) **invisible** stars

The phenomenon is **invisible** at optical wavelengths.

Session 2: Spelling

- | | |
|-----------------------------------|--|
| 1. 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 |
| 2. de___e centigrade | <i>n.</i> a unit of measurement for angles, temperature, or level of proficiency or achievement; a rank or level of academic or professional attainment |
| 3. en_____er a crisis | <i>v.</i> to face something, particularly something unpleasant or difficult, while attempting to do something else; to meet, especially unexpectedly |
| 4. tra_____ion speed | <i>n.</i> the act or process of sending something from one person or place to another; the process of broadcasting over the airwaves, as in radio or television |
| 5. r_v up the crowd | <i>n.</i> a measure of the rate at which an engine or motor rotates, often expressed in revolutions per minute (RPM); (verb) to increase the number of rotations per minute |
| 6. nav_____on system | <i>n.</i> the act of directing a ship or airplane from place to place; advice or information intended to resolve a problem or challenge, especially as given by someone in authority |
| 7. unf_____ely caught in a shower | <i>adv.</i> by bad luck; unluckily |

ANSWERS: 1. structure, 2. degree, 3. encounter, 4. transmission, 5. rev, 6. navigation, 7. unfortunately

8. di____t a well-ordered condition *v.* to prevent or stop something, especially an event, activity, or process, from continuing in the usual way by causing a problem or disturbance
9. solar mag_____ere *n.* the region of space surrounding a planet or other celestial body in which its magnetic field dominates the interplanetary field; this region acts as a shield, protecting the body from the effects of solar wind and other energetic particles
10. Me_____y Plan *n.* a heavy, silvery-white metal that is liquid at room temperature and is used in thermometers, electrical equipment, and other devices; (Mercury) the smallest planet and the nearest to the sun
11. the atmospheric tem_____re *n.* the degree of hotness or coldness of a thing or place
12. gi__t trees *adj.* enormous; much bigger or more important than similar items usually are
13. ev____e *v.* to develop gradually, or to cause the development of something or someone gradually
14. even more unf_____ely *adv.* by bad luck; unluckily
15. di____t sleep *v.* to prevent or stop something, especially an event, activity, or process, from continuing in the usual way by causing a problem or disturbance

ANSWERS: 8. disrupt, 9. magnetosphere, 10. mercury, 11. temperature, 12. giant, 13. evolve, 14. unfortunately, 15. disrupt

16. res_____le action *adj.* answerable or accountable for something within one's power, control, or management
17. a con_____ly varying mind *adv.* all the time
18. extreme tem_____res *n.* the degree of hotness or coldness of a thing or place
19. p__e pink *adj.* having skin that is very light colored; lacking in vitality or interest or effectiveness
20. home pr_____ce *n.* the territory occupied by one of the constituent administrative districts of a nation
21. a sh___d for protecting against a bullet *n.* a protective covering or structure, especially in the past, that soldiers held in front of their bodies to protect themselves
22. er__t into tears *v.* (of a volcano) to become active and eject rocks, smoke, etc.; to start abruptly and violently
23. Jo___n satellites *adj.* relating to Jupiter or its characteristics
24. a convivial atm_____re *n.* the mass of air that surrounds the Earth; the pervading tone or mood of a place, situation, or creative work
25. surface of Ve__s *n.* the planet second in order from the sun
26. a p__e complexion *adj.* having skin that is very light colored; lacking in vitality or interest or effectiveness
27. a g__d design *n.* a pattern of regularly spaced horizontal and vertical lines; a system of high tension cables by which electrical power is distributed throughout a region

ANSWERS: 16. responsible, 17. constantly, 18. temperature, 19. pale, 20. province, 21. shield, 22. erupt, 23. Jovian, 24. atmosphere, 25. Venus, 26. pale, 27. grid

28. love him non_____ss *adv.* in spite of what has just been said or done; nevertheless
29. pe_____b emotions *v.* to disturb or agitate someone or something, causing feelings of anxiety or unease; to throw something into a state of chaos or disorder
30. com_____ty theory *n.* the state or quality of being complicated or intricate and difficult to understand
31. ch__e a dream *v.* to pursue something or someone to catch or capture them; to go after something vigorously or with determination; (noun) a pursuit or a hunt; a narrow groove or channel cut into a surface, often used for decorative purposes
32. zo___e movie *n.* a dead body that has been brought back to life by a supernatural force; someone who acts or responds in a mechanical or apathetic way
33. theoretical ph_____st *n.* a scientist who specializes in the field of physics
34. wild goose ch__e *v.* to pursue something or someone to catch or capture them; to go after something vigorously or with determination; (noun) a pursuit or a hunt; a narrow groove or channel cut into a surface, often used for decorative purposes
35. mi_____te risk *v.* to make less severe or less intense; to alleviate or lessen the adverse effects of something

ANSWERS: 28. nonetheless, 29. perturb, 30. complexity, 31. chase, 32. zombie, 33. physicist, 34. chase, 35. mitigate

36. agricultural met_____gy *n.* the branch of science that deals with processes in the Earth's atmosphere that cause weather conditions
37. a_m at a specific target *v.* to try or plan to get or achieve something
38. sc___h your clothes *v.* to burn the surface of something, usually accidentally, with a hot iron or flame
39. Bengal pr____ce *n.* the territory occupied by one of the constituent administrative districts of a nation
40. st_____re and function of the brain *n.* the way of construction of something and the arrangement of its parts, or a complex thing constructed of many parts
41. co___c background radiation *adj.* relating to the universe or cosmos; vast or limitless
42. Jo___n planet *adj.* relating to Jupiter or its characteristics
43. ine_____ly decline with age *adv.* in a manner that cannot be avoided or prevented
44. ev___e over the past decade *v.* to develop gradually, or to cause the development of something or someone gradually
45. a ma_____ic tape *adj.* having the properties of attracting or repelling certain materials containing iron or steel
46. en_____or as much as possible *v.* to make an earnest attempt or effort; to strive or work hard towards a goal or objective

ANSWERS: 36. meteorology, 37. aim, 38. scorch, 39. province, 40. structure, 41. cosmic, 42. Jovian, 43. inevitably, 44. evolve, 45. magnetic, 46. endeavor

47. on the ve__e of tears *n.* the point at which something is about to happen or where something begins; the edge or margin of something, particularly a physical boundary or border
48. Ke___n measurement *n.* a unit of measurement for temperature in the International System of Units (SI), which starts at absolute zero, the theoretical lowest limit of temperature, and named after the British physicist William Thomson, also known as Lord Kelvin
49. a heat sh___d *n.* a protective covering or structure, especially in the past, that soldiers held in front of their bodies to protect themselves
50. a co_____nt temperature *adj.* happening repeatedly or all the time
51. ge_____c version *adj.* not specific; not linked to a particular brand or product
52. si_____te a future scenario *v.* to make a pretense of someone's behavior or looks; to reproduce something that exists in real life using computers, models, etc., usually for study or training purposes
53. carbon dioxide in the atm_____re *n.* the mass of air that surrounds the Earth; the pervading tone or mood of a place, situation, or creative work
54. cognitive com_____ty *n.* the state or quality of being complicated or intricate and difficult to understand

ANSWERS: 47. verge, 48. Kelvin, 49. shield, 50. constant, 51. generic, 52. simulate, 53. atmosphere, 54. complexity

55. human ev_____on *n.* a gradual process of transformation of living things
56. an in_____le asset *adj.* impossible or nearly impossible to see
57. r__y on convenience stores *v.* to require a specific thing or the assistance and support of someone or something to continue, run properly, or succeed.
58. er__t in anger *v.* (of a volcano) to become active and eject rocks, smoke, etc.; to start abruptly and violently
59. en_____er a storm *v.* to face something, particularly something unpleasant or difficult, while attempting to do something else; to meet, especially unexpectedly
60. the surface of the co__t *n.* a celestial object consisting of a nucleus of ice and dust that goes around the sun
61. careful not to sc___h *v.* to burn the surface of something, usually accidentally, with a hot iron or flame
62. the arrest of the cu_____t *n.* someone who is responsible for a crime or wrongdoing
63. pr__e for inside information *n.* a tool used for testing or examining, especially for medical or scientific purposes, or an exploratory mission to a planet or other celestial body; (verb) to investigate, examine, or search into something
64. charged pa_____le *n.* a small piece of something; a word or piece of a term with grammatical function but little or no significance

ANSWERS: 55. evolution, 56. invisible, 57. rely, 58. erupt, 59. encounter, 60. comet, 61. scorch, 62. culprit, 63. probe, 64. particle

65. the cu____t of global warming *n.* someone who is responsible for a crime or wrongdoing
66. a hu_____ne of applause *n.* a violent, tropical, cyclonic storm of the western North Atlantic, having wind speeds of or over 64 knots (74 miles per hour)
67. connecting the d_ts *n.* a very small circular mark, especially one that is printed
68. the so__r system *adj.* of, from, or relating to the sun
69. a wire g__d *n.* a pattern of regularly spaced horizontal and vertical lines; a system of high tension cables by which electrical power is distributed throughout a region
70. pe_____b the peace *v.* to disturb or agitate someone or something, causing feelings of anxiety or unease; to throw something into a state of chaos or disorder
71. talented ph_____st *n.* a scientist who specializes in the field of physics
72. ma_____ic field *adj.* having the properties of attracting or repelling certain materials containing iron or steel
73. tre_____us amount *adj.* very great in degree or extent or amount or impact; extremely good
74. mi_____te a natural disaster *v.* to make less severe or less intense; to alleviate or lessen the adverse effects of something
75. the st___m of time *n.* a small, narrow river; a continuous flow of something, such as liquid, gas, people, vehicles, etc.

ANSWERS: 65. culprit, 66. hurricane, 67. dot, 68. solar, 69. grid, 70. perturb, 71. physicist, 72. magnetic, 73. tremendous, 74. mitigate, 75. stream

76. Ke___n scale *n.* a unit of measurement for temperature in the International System of Units (SI), which starts at absolute zero, the theoretical lowest limit of temperature, and named after the British physicist William Thomson, also known as Lord Kelvin
77. the tra_____ion gears of a car *n.* the act or process of sending something from one person or place to another; the process of broadcasting over the airwaves, as in radio or television
78. pr_____t when she will arrive *v.* to state beforehand that something will happen in the future, mainly based on knowledge or experience
79. pl___t like the Earth *n.* any of the nine large celestial bodies that circle in the solar system; any celestial body that revolves around a star
80. a GPS sa_____te *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.
81. mag_____ere boundary *n.* the region of space surrounding a planet or other celestial body in which its magnetic field dominates the interplanetary field; this region acts as a shield, protecting the body from the effects of solar wind and other energetic particles

ANSWERS: 76. Kelvin, 77. transmission, 78. predict, 79. planet, 80. satellite, 81. magnetosphere

82. save the pl___t *n.* any of the nine large celestial bodies that circle in the solar system; any celestial body that revolves around a star
83. apo_____ic event *adj.* describing severe damage and destruction in past or future events, or the end of the world
84. visual nav_____on *n.* the act of directing a ship or airplane from place to place; advice or information intended to resolve a problem or challenge, especially as given by someone in authority
85. a con_____ly innovative enterprise *adv.* all the time
86. si_____te climate change *v.* to make a pretense of someone's behavior or looks; to reproduce something that exists in real life using computers, models, etc., usually for study or training purposes
87. mo_____r the data carefully *v.* to observe, check, and track the progress or quality of something over a period of time
88. Ve__s orbiter *n.* the planet second in order from the sun
89. lo___e a missing pet *v.* to specify or determine the exact position of someone or something
90. bu___e in the champagne glass *n.* a thin, round, and often transparent mass of gas that is surrounded by a thin layer of liquid; a state of economic or social prosperity that is unsustainable and eventually collapses

ANSWERS: 82. planet, 83. apocalyptic, 84. navigation, 85. constantly, 86. simulate, 87. monitor, 88. Venus, 89. locate, 90. bubble

91. a we__d dress *adj.* extraordinary, unexpected, or difficult to explain
92. the state of being we__d *adj.* extraordinary, unexpected, or difficult to explain
93. a ge____c product *adj.* not specific; not linked to a particular brand or product
94. a meteorological sa____te *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.
95. ine____ly reach the consumer *adv.* in a manner that cannot be avoided or prevented
96. second co____c velocity *adj.* relating to the universe or cosmos; vast or limitless
97. lo____e a tumor *v.* to specify or determine the exact position of someone or something
98. bachelor's de____e *n.* a unit of measurement for angles, temperature, or level of proficiency or achievement; a rank or level of academic or professional attainment
99. ev____on theory *n.* a gradual process of transformation of living things
100. low-r_v engine *n.* a measure of the rate at which an engine or motor rotates, often expressed in revolutions per minute (RPM); (verb) to increase the number of rotations per minute
101. te____m industry *n.* (a shortened form of telecommunications) the communication of information over long distances through various means such as phones, television, radio, and the internet

ANSWERS: 91. weird, 92. weird, 93. generic, 94. satellite, 95. inevitably, 96. cosmic, 97. locate, 98. degree, 99. evolution, 100. rev, 101. telecom

102. a co____nt wind *adj.* happening repeatedly or all the time
103. d_t blot method *n.* a very small circular mark, especially one that is printed
104. tre_____us popularity *adj.* very great in degree or extent or amount or impact; extremely good
105. a so__r eclipse *adj.* of, from, or relating to the sun
106. economic bu___e *n.* a thin, round, and often transparent mass of gas that is surrounded by a thin layer of liquid; a state of economic or social prosperity that is unsustainable and eventually collapses
107. gi__t tech company *adj.* enormous; much bigger or more important than similar items usually are
108. a lunar pr__e *n.* a tool used for testing or examining, especially for medical or scientific purposes, or an exploratory mission to a planet or other celestial body; (verb) to investigate, examine, or search into something
109. ve__e of bankruptcy *n.* the point at which something is about to happen or where something begins; the edge or margin of something, particularly a physical boundary or border
110. marine met_____gy *n.* the branch of science that deals with processes in the Earth's atmosphere that cause weather conditions
111. me____y poisoning *n.* a heavy, silvery-white metal that is liquid at room temperature and is used in thermometers, electrical equipment, and other devices; (Mercury) the smallest planet and the nearest to the sun

ANSWERS: 102. constant, 103. dot, 104. tremendous, 105. solar, 106. bubble, 107. giant, 108. probe, 109. verge, 110. meteorology, 111. mercury

112. res_____le for a customer service *adj.* answerable or accountable for something within one's power, control, or management
113. we are non_____ss confident *adv.* in spite of what has just been said or done; nevertheless
114. te_____m service providers *n.* (a shortened form of telecommunications) the communication of information over long distances through various means such as phones, television, radio, and the internet
115. a_m to be a nurse *v.* to try or plan to get or achieve something
116. in_____le stars *adj.* impossible or nearly impossible to see
117. r__y entirely on him *v.* to require a specific thing or the assistance and support of someone or something to continue, run properly, or succeed.
118. zo___e bank *n.* a dead body that has been brought back to life by a supernatural force; someone who acts or responds in a mechanical or apathetic way
119. mo_____r an exam *v.* to observe, check, and track the progress or quality of something over a period of time
120. an_____e a chemical compound *v.* to think about in-depth and evaluate to discover essential features or meaning
121. the ravages of a hu_____ne *n.* a violent, tropical, cyclonic storm of the western North Atlantic, having wind speeds of or over 64 knots (74 miles per hour)

ANSWERS: 112. responsible, 113. nonetheless, 114. telecom, 115. aim, 116. invisible, 117. rely, 118. zombie, 119. monitor, 120. analyze, 121. hurricane

122. have apo_____ic overtones *adj.* describing severe damage and destruction in past or future events, or the end of the world
123. an_____e your real motives *v.* to think about in-depth and evaluate to discover essential features or meaning
124. env_____nt affairs *n.* the natural world such as air, water, and land in which humans, animals, and plants live
125. en_____or to succeed *v.* to make an earnest attempt or effort; to strive or work hard towards a goal or objective
126. pa_____le energy *n.* a small piece of something; a word or piece of a term with grammatical function but little or no significance
127. chaotic env_____nt *n.* the natural world such as air, water, and land in which humans, animals, and plants live
128. an endless st_____m of cars *n.* a small, narrow river; a continuous flow of something, such as liquid, gas, people, vehicles, etc.
129. pr_____t the future *v.* to state beforehand that something will happen in the future, mainly based on knowledge or experience
130. co__t Halley *n.* a celestial object consisting of a nucleus of ice and dust that goes around the sun

ANSWERS: 122. apocalyptic, 123. analyze, 124. environment, 125. endeavor, 126. particle, 127. environment, 128. stream, 129. predict, 130. comet

Session 3: Fill in the Blanks

1. The wallpaper had a pattern of pink _____ on a white surface.
n. a very small circular mark, especially one that is printed
2. 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
3. I'm so sorry to _____ you when you're pretty busy.
v. to prevent or stop something, especially an event, activity, or process, from continuing in the usual way by causing a problem or disturbance
4. The robot can accurately _____ construction material.
v. to specify or determine the exact position of someone or something
5. They each choose _____ to battle.
adv. in spite of what has just been said or done; nevertheless
6. We can calculate the position of the _____ statistically.
n. a small piece of something; a word or piece of a term with grammatical function but little or no significance
7. We will _____ to find a solution to the problem as quickly as possible.
v. to make an earnest attempt or effort; to strive or work hard towards a goal or objective
8. 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

ANSWERS: 1. dots, 2. atmosphere, 3. disrupt, 4. locate, 5. nonetheless, 6. particles, 7. endeavor, 8. structure

9. They finally found the _____ of the bug after a long time.
n. someone who is responsible for a crime or wrongdoing
10. The _____ company is planning to launch a new smartphone next month.
n. (a shortened form of telecommunications) the communication of information over long distances through various means such as phones, television, radio, and the internet
11. Eyeless fish _____ in dark caves.
v. to develop gradually, or to cause the development of something or someone gradually
12. Efforts to _____ the effects of climate change require a coordinated and sustained effort by governments, businesses, and individuals.
v. to make less severe or less intense; to alleviate or lessen the adverse effects of something
13. The sun _____ the desert, making it uninhabitable.
v. to burn the surface of something, usually accidentally, with a hot iron or flame
14. The plane's _____ system had problems, which mechanics found.
n. the act of directing a ship or airplane from place to place; advice or information intended to resolve a problem or challenge, especially as given by someone in authority
15. I'm prepared to _____ challenges throughout this adventure.
v. to face something, particularly something unpleasant or difficult, while attempting to do something else; to meet, especially unexpectedly
16. The loud music from the party next door is starting to _____ me.
v. to disturb or agitate someone or something, causing feelings of anxiety or unease; to throw something into a state of chaos or disorder

ANSWERS: 9. culprit, 10. telecom, 11. evolved, 12. mitigate, 13. scorched, 14. navigation, 15. encounter, 16. perturb

17. 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.
18. _____ pattern roads often appear in urban areas.
- n.* a pattern of regularly spaced horizontal and vertical lines; a system of high tension cables by which electrical power is distributed throughout a region
19. The project's _____ made it difficult for the team to complete it on time.
- n.* the state or quality of being complicated or intricate and difficult to understand
20. Jet _____ are the common name for air currents that form high in the atmosphere.
- n.* a small, narrow river; a continuous flow of something, such as liquid, gas, people, vehicles, etc.
21. She turned _____ when she heard the news.
- adj.* having skin that is very light colored; lacking in vitality or interest or effectiveness
22. Every human is responsible for taking care of the Earth's _____.
- n.* the natural world such as air, water, and land in which humans, animals, and plants live
23. We _____ for an overseas expansion.
- v.* to try or plan to get or achieve something
24. The _____ aspirin brand was just as effective as the name brand but much cheaper.
- adj.* not specific; not linked to a particular brand or product

ANSWERS: 17. satellite, 18. Grid, 19. complexity, 20. streams, 21. pale, 22. environment, 23. aim, 24. generic

25. He had painted the wood to _____ stone.

- v.* to make a pretense of someone's behavior or looks; to reproduce something that exists in real life using computers, models, etc., usually for study or training purposes

26. He conducted his research at the _____ laboratory using large-scale computing.

- n.* the branch of science that deals with processes in the Earth's atmosphere that cause weather conditions

27. The devastating _____ caused widespread damage and left many people homeless.

- n.* a violent, tropical, cyclonic storm of the western North Atlantic, having wind speeds of or over 64 knots (74 miles per hour)

28. They study the _____ of the universe.

- n.* a gradual process of transformation of living things

29. The teacher attempted to _____ the root cause of our mistake.

- v.* to think about in-depth and evaluate to discover essential features or meaning

30. Education is the _____ of civilization.

- n.* the act or process of sending something from one person or place to another; the process of broadcasting over the airwaves, as in radio or television

31. The _____ in the thermometer had risen to the boiling point.

- n.* a heavy, silvery-white metal that is liquid at room temperature and is used in thermometers, electrical equipment, and other devices; (Mercury) the smallest planet and the nearest to the sun

ANSWERS: 25. simulate, 26. meteorology, 27. hurricane, 28. evolution, 29. analyze, 30. transmission, 31. mercury

32. 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
33. The _____ jets gradually dominate the world's airlines.
adj. enormous; much bigger or more important than similar items usually are
34. Cities around the world set records for highest _____ this summer.
n. the degree of hotness or coldness of a thing or place
35. The phenomenon is _____ at optical wavelengths.
adj. impossible or nearly impossible to see
36. He stood on the _____ of a major discovery.
n. the point at which something is about to happen or where something begins; the edge or margin of something, particularly a physical boundary or border
37. 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
38. The _____ bright tail could be seen in the night sky.
n. a celestial object consisting of a nucleus of ice and dust that goes around the sun
39. The police officer _____ the suspect through the crowded streets until they finally caught him.
v. to pursue something or someone to catch or capture them; to go after something vigorously or with determination; (noun) a pursuit or a hunt; a narrow groove or channel cut into a surface, often used for decorative purposes

ANSWERS: 32. monitor, 33. giant, 34. temperatures, 35. invisible, 36. verge, 37. planet, 38. comet's, 39. chased

40. They launched a rocket toward _____.
- n.* the planet second in order from the sun
41. _____ panels have greatly improved not only in performance but also in durability.
- adj.* of, from, or relating to the sun
42. Because of his excellent performance, he will _____ be promoted.
- adv.* in a manner that cannot be avoided or prevented
43. The mobile application industry is _____ changing.
- adv.* all the time
44. A network of railways has developed over the _____.
- n.* the territory occupied by one of the constituent administrative districts of a nation
45. Many people worry that the current real estate market is a _____ that could burst soon.
- n.* a thin, round, and often transparent mass of gas that is surrounded by a thin layer of liquid; a state of economic or social prosperity that is unsustainable and eventually collapses
46. Einstein was an outstanding and famous _____ of the 20th century.
- n.* a scientist who specializes in the field of physics
47. _____ rays are high-energy particles that originate from outside the solar system.
- adj.* relating to the universe or cosmos; vast or limitless

ANSWERS: 40. Venus, 41. Solar, 42. inevitably, 43. constantly, 44. province, 45. bubble, 46. physicist, 47. Cosmic

48. The _____ moon Europa is believed to have an ocean beneath its icy surface.
adj. relating to Jupiter or its characteristics
49. She received her _____ in psychology from the university.
n. a unit of measurement for angles, temperature, or level of proficiency or achievement; a rank or level of academic or professional attainment
50. The Earth's _____ protects us from harmful solar radiation.
n. the region of space surrounding a planet or other celestial body in which its magnetic field dominates the interplanetary field; this region acts as a shield, protecting the body from the effects of solar wind and other energetic particles
51. He stepped on the gas pedal, and the engine released a loud _____.
n. a measure of the rate at which an engine or motor rotates, often expressed in revolutions per minute (RPM); (verb) to increase the number of rotations per minute
52. The scientist cooled the sample to just a couple of _____ to observe quantum effects.
n. a unit of measurement for temperature in the International System of Units (SI), which starts at absolute zero, the theoretical lowest limit of temperature, and named after the British physicist William Thomson, also known as Lord Kelvin
53. She's a _____ pet owner who ensures her dog gets enough exercise and a healthy diet.
adj. answerable or accountable for something within one's power, control, or management
54. If you don't get a good night's sleep, you will become a _____ at work.
n. a dead body that has been brought back to life by a supernatural force; someone who acts or responds in a mechanical or apathetic way

ANSWERS: 48. Jovian, 49. degree, 50. magnetosphere, 51. rev, 52. Kelvin, 53. responsible, 54. zombie

55. Babies heavily _____ on others for food.

- v.* to require a specific thing or the assistance and support of someone or something to continue, run properly, or succeed.

56. NASA sent a _____ to study the atmosphere of Jupiter.

- n.* a tool used for testing or examining, especially for medical or scientific purposes, or an exploratory mission to a planet or other celestial body; (verb) to investigate, examine, or search into something

57. Battles between whites and blacks _____ immediately.

- v.* (of a volcano) to become active and eject rocks, smoke, etc.; to start abruptly and violently

58. _____ dropping wears away the stone.

- adj.* happening repeatedly or all the time

59. My computer has been acting _____ recently.

- adj.* extraordinary, unexpected, or difficult to explain

60. Lead is an effective _____ against X-rays, gamma rays, and other harmful radiation.

- n.* a protective covering or structure, especially in the past, that soldiers held in front of their bodies to protect themselves

61. It's notoriously challenging to _____ birth rates.

- v.* to state beforehand that something will happen in the future, mainly based on knowledge or experience

62. We had a _____ time yesterday.

- adj.* very great in degree or extent or amount or impact; extremely good

ANSWERS: 55. rely, 56. probe, 57. erupted, 58. Constant, 59. weird, 60. shield, 61. predict, 62. tremendous

63. The _____ landscape of burnt-out villages and bombed-out ruins spread out before them.

adj. describing severe damage and destruction in past or future events, or the end of the world

64. The treatments were done but, _____ were unsuccessful.

adv. by bad luck; unluckily

65. The _____ force of the earth keeps our planet spinning.

adj. having the properties of attracting or repelling certain materials containing iron or steel

ANSWERS: 63. apocalyptic, 64. unfortunately, 65. magnetic