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Vocabulary Builder Reference from...

Matteo Fadel: Can you win a game of quantum foosball? | TED Talk

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

All Words

IMPORTANT

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Session 1: Word List

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.

accelerate

v. to make something faster or earlier; to cause to develop or progress more quickly

synonym : speed up, quicken, rev

(1) **accelerate** a chemical reaction, (2) **accelerate** the car

The government tried to **accelerate** the commercialization of this development.

arcade

n. a covered passageway or walkway, often lined with shops or restaurants; a series of arches supported by columns; a type of video game in which the player controls a character moving through a series of levels and obstacles

synonym : gallery, colonnade, passageway

(1) **arcade** games, (2) colonnaded **arcade**

The public **arcade** was filled with the sound of children laughing and playing games.

unwind

v. to relax and release tension, often by engaging in leisure activities or by simply resting; to reverse the winding or twisting of something

synonym: relax, de-stress, unroll

(1) **unwind** after work, (2) **unwind** on vacation

I like to **unwind** with a good book after a long day at work.

gleam

v. to reflect light in a way that creates a shining or bright and attractive appearance; to become visible or apparent

synonym: glitter, shimmer, shine

(1) **gleam** in eyes, (2) **gleam** like honey

The diamond ring **gleamed** in the sunlight, catching everyone's eye.

insert

v. to put something inside something else

synonym: introduce, add, embed

(1) **insert** coin, (2) **insert** a graphic

She **inserted** a new chapter into her manuscript.

fanfare

n. a short, loud, and attention-grabbing burst of sound, often to announce or celebrate something special; a flourished or ostentatious display or demonstration

synonym: celebration, parade, ceremony

(1) **fanfare** announcement, (2) royal **fanfare**

The team arrived in a flurry of **fanfare** after winning the championship.

quantum

n. the smallest amount or unit of something, especially (electromagnetic) energy

(1) probabilistic **quantum** theory, (2) laws of **quantum** mechanics

Big techs are now eager to develop **quantum** computers.

norm

n. something that is regarded as usual, typical, or standard

synonym: criterion, mean, standard

(1) **norm** of action, (2) cultural **norm**

The systems we have developed has accepted as industry **norms**.

spinning

n. the act of rotating rapidly around an axis; in the context of textiles, the process of twisting fibers together to form thread or yarn

synonym: whirling, rotating, spinning wheel

(1) **spinning** machine, (2) **spinning** wheel

She took a **spinning** class at the gym to improve her cardiovascular fitness.

lever

n. a handle used to operate a vehicle or a machine; a rigid bar resting on a pivot so that one end of it can be pushed or pulled easily

synonym: lifter, crowbar, bar

(1) a gear change **lever**, (2) **lever** for reform

This initiative will be a **lever** for increasing company sales.

sink

v. to submerge or go down below the surface of a liquid or substance; to decline or deteriorate; to cause something to go down into a liquid substance or sink into something else

synonym: descend, drop, plummet

(1) **sink** a lot of capital, (2) **sink** a buzzer-beater

The abandoned ship slowly began to **sink** into the murky waters of the harbor.

opponent

n. a person against whom you are playing or fighting in a game, competition, debate, etc.

synonym: adversary, competitor, enemy

(1) computer **opponent**, (2) death-penalty **opponent**

He was attempting to confuse his **opponent**.

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.

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.

Newtonian

adj. relating to Sir Isaac Newton or his laws of motion and universal gravitation

synonym : classical, physics, mechanics

(1) **Newtonian** physics, (2) **Newtonian** mechanics

The motion of planets can be described using **Newtonian** mechanics.

physics

n. the science of matter and energy and their interactions

(1) nuclear **physics**, (2) laws of **physics**

He studied the **physics** of radiation.

movement

n. a group of people working together to achieve a shared goal, especially a political, social, or artistic one; the process of moving or being moved, physically or figuratively

synonym : motion, progression, action

(1) a circular **movement**, (2) **movement** of troops

The **movement** of the dancers on stage was graceful and elegant.

govern

v. to legally control and direct a country, city, group of people, etc. and be responsible for introducing new laws, organizing and maintaining public services

synonym : control, rule, preside

(1) a nation's right to **govern**, (2) **govern** a public enterprise

The regulations **governing** medical malpractice claims are rigorous.

mechanics

n. the branch of physics that deals with the study of motion, forces, and energy; (mechanic) someone whose occupation is repairing and maintaining automobiles

synonym : kinematics, dynamics

(1) **mechanics** equation, (2) **mechanics** of the game
He studied **mechanics** in college and now works as an engineer.

minimize

v. to make something, especially something bad, small or less serious

synonym : diminish, mitigate, belittle

(1) **minimize** a loss, (2) way to **minimize** conflict
I bought a gadget before my trip to help **minimize** stress during the flight.

influence

n. the ability to affect someone's or something's character, growth, or behavior, or the effect itself

synonym : power, leverage, effect

(1) **influence** a child's future, (2) **influence** the daily life
The former emperor had a particular **influence** even after he abdicated.

photon

n. a unit or quantum of electromagnetic energy, typically regarded as a particle that is the basic constituent of all light and other forms of electromagnetic radiation

synonym : particle, quantum, light

(1) **photon** emission, (2) **photon** energy
Infrared cameras detect **photons** in the infrared range of the electromagnetic spectrum.

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.

vacuum

n. a space empty of matter; a device or tool used for cleaning or removing debris by creating suction

synonym : void, emptiness, gap

(1) **vacuum** cleaner, (2) **vacuum** packing

Please use the **vacuum** to clean up the mess on the floor.

flash

n. a sudden intense burst of radiant energy; a momentary brightness

synonym : sparkle, gleam, glimmer

(1) a **flash** of lightning, (2) brilliant **flash**

These heavy rains caused **flash** floods on several islands.

collision

n. an instance of two or more objects or entities crashing into each other, usually resulting in damage, impact, or conflict

synonym : crash, impact, smash

(1) **collision** detection, (2) come into **collision** with my friend

The **collision** of tectonic plates can result in new mountain ranges, such as the Himalayas or the Alps.

detect

v. to find or recognize something, especially something difficult to see, hear, etc.

synonym : catch, observe, notice

(1) **detect** a bad event, (2) **detect** smuggling across borders

The security camera has **detected** four intruders.

consequence

n. the outcome of a particular action or event, especially relative to an individual

synonym : result, impact, outcome

(1) unintended **consequences**, (2) the **consequence** of an argument

These economic activities had disastrous environmental **consequences**.

uncertain

adj. not being sure of something; not being able to choose

synonym : doubtful, skeptical, pending

(1) numerous **uncertain** factors, (2) take an **uncertain** attitude

She was **uncertain** about her friend's intentions.

principle

n. a fundamental law or truth that explains or controls how something happens or works

synonym: rule, creed, code

(1) **principle** of treatment, (2) **principle** in business

Efficiency isn't an essential **principle** here; fairness is.

velocity

n. the rate of change of an object's position with respect to time, often measured in meters per second (m/s)

synonym: speed, rapidity, swiftness

(1) initial **velocity**, (2) high **velocity**

The **velocity** of the car was too fast for the road conditions.

vice

n. wrongdoing or wicked behavior; (in the form of vice versa) with the order reversed; (as a prefix) someone with a job immediately below a particular person

synonym: corruption, depravity, evil

(1) virtue and **vice**, (2) **vice-chair** of the committee

Cats hate dogs and **vice** versa.

largely

adv. virtually entirely; to a large degree

synonym: mainly, chiefly, broadly

(1) **largely** accepted, (2) **largely** mitigate the issue

Nevada is **largely** a desert state.

probable

adj. likely to happen or likely to be true

synonym: likely, possible, potential

(1) **probable** outcome, (2) **probable** cause of a fire

It seems **probable** that he has forgotten our scheduled meeting.

distribute

v. to give something to a large number of individuals, or to spread or furnish something

synonym:

broadcast, disperse, hand out

(1) **distribute** wealth evenly, (2) **distribute** video content
His estate was **distributed** to his sons.

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.

concentration

n. the ability to focus all your time and energy on one thing without thinking about anything else.

synonym: attention, engagement, assiduity

(1) **concentration** of armaments, (2) his research area of **concentration**

This exam requires excellent **concentration** to pass.

opposition

n. the act of disagreeing or resisting; the state of strong disagreement

synonym: resistance, hostility, antagonism

(1) **opposition** campaign, (2) meet with **opposition**

The **opposition** party strongly disagreed with the government's proposed legislation.

likelihood

n. the probability or chance that something will happen or be the case

synonym: probability, chance, possibility

(1) **likelihood** of the success, (2) improve the **likelihood** of a cure

The **likelihood** of the project being completed on time is uncertain.

determinant

n. a factor, circumstance, or condition that contributes to the shaping, influencing, or determining of a particular outcome or result

synonym : cause, factor, element

(1) environmental **determinant**, (2) a **determinant** of crop yields

One **determinant** of success is having a positive attitude and a strong work ethic.

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.

manipulate

v. to influence or control something or someone to your advantage, often in an unfair or dishonest way

synonym : control, exploit, abuse

(1) **manipulate** figures, (2) vulnerable to **manipulate**

Please tell me how to **manipulate** this computer.

rod

n. a long, thin, straight piece of wood, metal, or other material used for support, as a weapon, or for punishment

synonym : stick, wand, staff

(1) **rod** cell, (2) curtain **rod**

He used a fishing **rod** to catch the biggest fish of the day.

strength

n. the quality or state of being physically, or sometimes mentally, strong

synonym : resilience, power, muscles

(1) **strength** of the economy, (2) muscular **strength**

Health and **strength** are, above all, gold.

precise

adj. sharply exact or accurate or delimited

synonym : accurate, exact, distinct

(1) **precise** analyses, (2) estimate **precise** costs

The content is **precise** and informative for me.

spin

v. to cause something to rotate rapidly; to cause someone to feel dizzy or disoriented

synonym: rotate, twirl, swirl

(1) **spin** a top, (2) **spin** thread out of cotton

The tornado is **spinning** across the countryside, destroying everything in its path.

construct

v. to build or create something; to assemble or combine different parts to form something whole

synonym: build, assemble, create

(1) **construct** a 3D image, (2) **construct** a dam

He **constructs** hypotheses that no mathematician has ever imagined before.

tunnel

n. an underground or underwater passage, typically for trains or cars

synonym: passageway, underground passage

(1) **tunnel** construction work, (2) **tunnel** disease

The workers had to dig through solid rock to create the vehicular **tunnel** allowing the cars to pass through the mountain.

apparent

adj. able to see or understand easily or clearly

synonym: obvious, clear, conspicuous

(1) heir **apparent**, (2) **apparent** contradiction

This star is **apparent** to the naked eye.

universe

n. everything that exists, especially all physical matter, including planets, stars, galaxies, and all other forms of matter and energy

synonym: cosmos, macrocosm

(1) theory of the **universe**, (2) expansion of the **universe**

The **universe** is about 13.8 billion years old.

- spit** v. to eject saliva or other liquid from the mouth
synonym: expectorate, saliva, spew
(1) **spit** a bullet, (2) **spit** a mouthful of saliva
She tried to **spit** out the gum that she had been chewing.
- evident** *adj.* apparent to the mind, senses, or judgment
synonym: apparent, noticeable, obvious
(1) **evident** to all, (2) plainly **evident**
With **evident** joy, he signed his name.
- presence** *n.* the fact or state that someone or something exists, occurs, or is present
synonym: existence, actuality, fact
(1) the evidence of the **presence**, (2) his majestic **presence**
The path to a solid online **presence** necessitates a high technical ability.
- obstacle** *n.* a thing that blocks one's way or prevents or hinders progress
synonym: hindrance, barrier, block
(1) an **obstacle** to progress, (2) **obstacle** avoidance
The **obstacle** course was challenging but fun.
- row** *n.* an arrangement of objects or people side by side in a line
synonym: line, sequence, layer
(1) criminal on death **row**, (2) a **row** of cherry trees
He was the leader of the demonstrators and spoke out against the war in the front **row**.
- miniature** *adj.* being on a very small scale
synonym: mini, scaled-down, pint-sized
(1) **miniature** camera, (2) **miniature** version
He did complicated pen-and-ink drawings like medieval **miniatures**.

complicated

adj. involving a lot of different things or parts in a way that is difficult to understand or analyze

synonym : complex, convoluted, intricate

(1) a **complicated** process, (2) become increasingly

complicated

He did **complicated** pen-and-ink drawings in just a few days.

interference

n. the act or process of getting involved in and trying to influence a specific situation; the state of being affected and influenced with

synonym : obstruction, hindrance, impedance

(1) officious **interference**, (2) **interference** wave

Unfortunately, the radio **interference** made it difficult to hear the broadcast.

develop

v. to grow or expand; to improve or refine through a process of progress and refinement, often to achieve greater sophistication or complexity; to elaborate or add detail to something that is in the process of being created

synonym : evolve, progress, advance

(1) **develop** a strategy, (2) **develop** a skill

We must **develop** a new system to streamline our workflow and increase efficiency.

accurate

adj. correct and exact in all details

synonym : exact, precise, proper

(1) provide **accurate** information, (2) **accurate** measurements

The official transcript contains **accurate** academic records.

advance

v. to go or move forward; to develop in a positive way

synonym : progress, boost, come along

(1) **advance** the technology, (2) **advance** a cooperative relationship

Scientific knowledge will **advance** significantly with the power of AI.

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.

handy

adj. valuable and convenient; easy or ready to reach or use

synonym : clever, accessible, available

(1) a **handy-sized** bag, (2) **handy** tool

They found a **handy** place to play catch.

advantage

n. a condition or circumstance that puts one in a favorable or superior position; a beneficial feature or asset that someone or something has

synonym : benefit, edge, asset

(1) score an **advantage**, (2) take **advantage** of his weak points

One of the main **advantages** of the new product is its increased efficiency.

frequent

adj. happening constantly

synonym : periodic, recurring, routine

(1) **frequent** absence, (2) **frequent** use

His heartaches are less **frequent** now.

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.

mast

n. a long pole aboard a boat or ship that holds up the sails

(1) **mast** height, (2) built-up **mast**

The main cabin is located in front of the **mast**.

maneuver

n. a motion or combination of moves that requires skill and care; a clever strategy, activity, or movement intended to give someone an advantage

synonym : gimmick, trick, action

(1) political **maneuvers**, (2) made a great **maneuver**

In this class, we learn the basic **maneuver** of the plane.

dominate

v. to have or control a lot of power and influence over somebody or something

synonym : govern, rule, prevail

(1) **dominate** possession, (2) **dominate** over the weak

The perspective of his right brain **dominates** his consciousness.

tricky

adj. requiring care and skill because challenging to do or deal with

synonym : thorny, problematic, crafty

(1) **tricky** problem, (2) a **tricky** recipe to follow

We have discussed the entirety of this **tricky** problem.

distinctive

adj. having a quality or characteristic that makes it stand out from others

synonym : characteristic, individual, unique

(1) **distinctive** ability, (2) design to be **distinctive**

His writing style was **distinctive**, with a clear and concise voice.

feat

n. a notable or impressive achievement, especially one that requires great skill or bravery

synonym : achievement, accomplishment, exploit

(1) intellectual **feat**, (2) **feat** accomplishment

It is an incredible **feat** to climb Mount Everest, the highest mountain in the world.

possibility

n. a chance that something may happen or be true

synonym : chance, prospect, likelihood

(1) **possibility** for growth, (2) **possibility** of a major

earthquake

The **possibility** of getting the disease will drastically increase.

superposition

n. a principle in physics that describes the combination or overlaying of two or more waves or states of matter; (of geology) the process by which layers of rock or sediment are deposited on top of one another over time

synonym : overlay, overlap

(1) quantum **superposition**, (2) **superposition** theorem

The **superposition** of waves can result in either constructive or destructive interference.

simultaneously

adv. at the same time

synonym : concurrently, coincidentally, together

(1) **simultaneously** affected, (2) take several inputs

simultaneously

Two students answered the teacher's question

simultaneously.

strike

v. to wallop somebody or something with the hand, fist, or weapon; to have an emotional or cognitive impact upon

synonym : hit, impact, influence

(1) **strike** up a conversation, (2) **strike** a blow

We **strike** to achieve more wages and safer working conditions.

champion

n. someone who has won first place in a competition; someone who fights for a specific group of people or a belief

synonym : victor, winner, fighter

(1) a **champion** of peace, (2) the grand **champion**

The **champion** bicyclist outrode all his competitors.

technique

n. a particular way or art of doing something that needs skill

synonym : approach, procedure, strategy

(1) a **technique** in martial arts, (2) the **technique** applied to construction

Jockey's superior **technique** brought him victory.

Session 2: Spelling

1. sup_____ion theorem *n.* a principle in physics that describes the combination or overlaying of two or more waves or states of matter; (of geology) the process by which layers of rock or sediment are deposited on top of one another over time
2. a te_____ue in martial arts *n.* a particular way or art of doing something that needs skill
3. the te_____ue applied to construction *n.* a particular way or art of doing something that needs skill
4. ad_____e the technology *v.* to go or move forward; to develop in a positive way
5. co_____ct a 3D image *v.* to build or create something; to assemble or combine different parts to form something whole
6. s__n a top *v.* to cause something to rotate rapidly; to cause someone to feel dizzy or disoriented
7. numerous un_____in factors *adj.* not being sure of something; not being able to choose
8. expansion of the un_____se *n.* everything that exists, especially all physical matter, including planets, stars, galaxies, and all other forms of matter and energy
9. laws of qu_____m mechanics *n.* the smallest amount or unit of something, especially (electromagnetic) energy

ANSWERS: 1. superposition, 2. technique, 3. technique, 4. advance, 5. construct, 6. spin, 7. uncertain, 8. universe, 9. quantum

10. co_____ct a dam *v.* to build or create something; to assemble or combine different parts to form something whole
11. in_____ce the daily life *n.* the ability to affect someone's or something's character, growth, or behavior, or the effect itself
12. ev___e *v.* to develop gradually, or to cause the development of something or someone gradually
13. Ne_____an physics *adj.* relating to Sir Isaac Newton or his laws of motion and universal gravitation
14. de___t a bad event *v.* to find or recognize something, especially something difficult to see, hear, etc.
15. ph___n energy *n.* a unit or quantum of electromagnetic energy, typically regarded as a particle that is the basic constituent of all light and other forms of electromagnetic radiation
16. pr_____le cause of a fire *adj.* likely to happen or likely to be true
17. s__n thread out of cotton *v.* to cause something to rotate rapidly; to cause someone to feel dizzy or disoriented
18. s__t a mouthful of saliva *v.* to eject saliva or other liquid from the mouth
19. ap_____nt contradiction *adj.* able to see or understand easily or clearly
20. st___e a blow *v.* to wallop somebody or something with the hand, fist, or weapon; to have an emotional or cognitive impact upon

ANSWERS: 10. construct, 11. influence, 12. evolve, 13. Newtonian, 14. detect, 15. photon, 16. probable, 17. spin, 18. spit, 19. apparent, 20. strike

21. ar___e games *n.* a covered passageway or walkway, often lined with shops or restaurants; a series of arches supported by columns; a type of video game in which the player controls a character moving through a series of levels and obstacles
22. un___d on vacation *v.* to relax and release tension, often by engaging in leisure activities or by simply resting; to reverse the winding or twisting of something
23. a circular mo_____nt *n.* a group of people working together to achieve a shared goal, especially a political, social, or artistic one; the process of moving or being moved, physically or figuratively
24. computer op_____nt *n.* a person against whom you are playing or fighting in a game, competition, debate, etc.
25. sim_____sly affected *adv.* at the same time
26. in___t coin *v.* to put something inside something else
27. r_d cell *n.* a long, thin, straight piece of wood, metal, or other material used for support, as a weapon, or for punishment
28. gi__t tech company *adj.* enormous; much bigger or more important than similar items usually are
29. a det_____nt of crop yields *n.* a factor, circumstance, or condition that contributes to the shaping, influencing, or determining of a particular outcome or result

ANSWERS: 21. arcade, 22. unwind, 23. movement, 24. opponent, 25. simultaneously, 26. insert, 27. rod, 28. giant, 29. determinant

30. score an ad_____ge *n.* a condition or circumstance that puts one in a favorable or superior position; a beneficial feature or asset that someone or something has
31. muscular st_____th *n.* the quality or state of being physically, or sometimes mentally, strong
32. gl__m like honey *v.* to reflect light in a way that creates a shining or bright and attractive appearance; to become visible or apparent
33. way to mi_____ze conflict *v.* to make something, especially something bad, small or less serious
34. pr_____le of treatment *n.* a fundamental law or truth that explains or controls how something happens or works
35. do_____te possession *v.* to have or control a lot of power and influence over somebody or something
36. environmental det_____nt *n.* a factor, circumstance, or condition that contributes to the shaping, influencing, or determining of a particular outcome or result
37. a ha__y-sized bag *adj.* valuable and convenient; easy or ready to reach or use
38. lik_____od of the success *n.* the probability or chance that something will happen or be the case
39. go___n a public enterprise *v.* to legally control and direct a country, city, group of people, etc. and be responsible for introducing new laws, organizing and maintaining public services

ANSWERS: 30. advantage, 31. strength, 32. gleam, 33. minimize, 34. principle, 35. dominate, 36. determinant, 37. handy, 38. likelihood, 39. govern

40. cultural n__m *n.* something that is regarded as usual, typical, or standard
41. probabilistic qu____m theory *n.* the smallest amount or unit of something, especially (electromagnetic) energy
42. tu___l construction work *n.* an underground or underwater passage, typically for trains or cars
43. ha__y tool *adj.* valuable and convenient; easy or ready to reach or use
44. la____y accepted *adv.* virtually entirely; to a large degree
45. laws of ph____s *n.* the science of matter and energy and their interactions
46. pr____le outcome *adj.* likely to happen or likely to be true
47. heir ap____nt *adj.* able to see or understand easily or clearly
48. ob____e a tradition *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
49. co____on detection *n.* an instance of two or more objects or entities crashing into each other, usually resulting in damage, impact, or conflict
50. n__m of action *n.* something that is regarded as usual, typical, or standard
51. st___e up a conversation *v.* to wallop somebody or something with the hand, fist, or weapon; to have an emotional or cognitive impact upon

ANSWERS: 40. norm, 41. quantum, 42. tunnel, 43. handy, 44. largely, 45. physics, 46. probable, 47. apparent, 48. observe, 49. collision, 50. norm, 51. strike

52. criminal on death r_w *n.* an arrangement of objects or people side by side in a line
53. m__t height *n.* a long pole aboard a boat or ship that holds up the sails
54. sp____ng machine *n.* the act of rotating rapidly around an axis; in the context of textiles, the process of twisting fibers together to form thread or yarn
55. pos_____ty for growth *n.* a chance that something may happen or be true
56. design to be dis_____ve *adj.* having a quality or characteristic that makes it stand out from others
57. intellectual f__t *n.* a notable or impressive achievement, especially one that requires great skill or bravery
58. virtue and v__e *n.* wrongdoing or wicked behavior; (in the form of vice versa) with the order reversed; (as a prefix) someone with a job immediately below a particular person
59. dis_____ve ability *adj.* having a quality or characteristic that makes it stand out from others
60. la____y mitigate the issue *adv.* virtually entirely; to a large degree
61. vulnerable to man_____te *v.* to influence or control something or someone to your advantage, often in an unfair or dishonest way
62. his majestic pr_____ce *n.* the fact or state that someone or something exists, occurs, or is present

ANSWERS: 52. row, 53. mast, 54. spinning, 55. possibility, 56. distinctive, 57. feat, 58. vice, 59. distinctive, 60. largely, 61. manipulate, 62. presence

63. brilliant fl__h *n.* a sudden intense burst of radiant energy; a momentary brightness
64. the con_____ce of an argument *n.* the outcome of a particular action or event, especially relative to an individual
65. Ne_____an mechanics *adj.* relating to Sir Isaac Newton or his laws of motion and universal gravitation
66. mo_____le behavior *n.* a group of two or more atoms held together by attractive forces known as chemical bonds
67. a gear change le__r *n.* a handle used to operate a vehicle or a machine; a rigid bar resting on a pivot so that one end of it can be pushed or pulled easily
68. beam of el_____ons *n.* a tiny particle with the negative electrical charge
69. an ob_____le to progress *n.* a thing that blocks one's way or prevents or hinders progress
70. a com_____ed process *adj.* involving a lot of different things or parts in a way that is difficult to understand or analyze
71. st_____th of the economy *n.* the quality or state of being physically, or sometimes mentally, strong
72. quantum sup_____ion *n.* a principle in physics that describes the combination or overlaying of two or more waves or states of matter; (of geology) the process by which layers of rock or sediment are deposited on top of one another over time

ANSWERS: 63. flash, 64. consequence, 65. Newtonian, 66. molecule, 67. lever, 68. electron, 69. obstacle, 70. complicated, 71. strength, 72. superposition

73. fr_____nt use *adj.* happening constantly
74. ob_____le avoidance *n.* a thing that blocks one's way or prevents or hinders progress
75. charged pa_____le *n.* a small piece of something; a word or piece of a term with grammatical function but little or no significance
76. mi_____re camera *adj.* being on a very small scale
77. meet with opp_____on *n.* the act of disagreeing or resisting; the state of strong disagreement
78. un_____d after work *v.* to relax and release tension, often by engaging in leisure activities or by simply resting; to reverse the winding or twisting of something
79. pa_____le energy *n.* a small piece of something; a word or piece of a term with grammatical function but little or no significance
80. improve the lik_____od of a cure *n.* the probability or chance that something will happen or be the case
81. tr_____y problem *adj.* requiring care and skill because challenging to do or deal with
82. me_____cs of the game *n.* the branch of physics that deals with the study of motion, forces, and energy; (mechanic) someone whose occupation is repairing and maintaining automobiles
83. ob_____e wildlife *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

ANSWERS: 73. frequent, 74. obstacle, 75. particle, 76. miniature, 77. opposition, 78. unwind, 79. particle, 80. likelihood, 81. tricky, 82. mechanics, 83. observe

84. de___t smuggling across borders *v.* to find or recognize something, especially something difficult to see, hear, etc.
85. int_____nce wave *n.* the act or process of getting involved in and trying to influence a specific situation; the state of being affected and influenced with
86. fa_____e announcement *n.* a short, loud, and attention-grabbing burst of sound, often to announce or celebrate something special; a flourished or ostentatious display or demonstration
87. provide ac_____te information *adj.* correct and exact in all details
88. opp_____on campaign *n.* the act of disagreeing or resisting; the state of strong disagreement
89. death-penalty op_____nt *n.* a person against whom you are playing or fighting in a game, competition, debate, etc.
90. made a great ma_____er *n.* a motion or combination of moves that requires skill and care; a clever strategy, activity, or movement intended to give someone an advantage
91. dis_____te wealth evenly *v.* to give something to a large number of individuals, or to spread or furnish something
92. small mo_____les *n.* a group of two or more atoms held together by attractive forces known as chemical bonds
93. plainly ev_____t *adj.* apparent to the mind, senses, or judgment

ANSWERS: 84. detect, 85. interference, 86. fanfare, 87. accurate, 88. opposition, 89. opponent, 90. maneuver, 91. distribute, 92. molecule, 93. evident

94. unintended con_____ces *n.* the outcome of a particular action or event, especially relative to an individual
95. estimate pr_____e costs *adj.* sharply exact or accurate or delimited
96. dis_____te video content *v.* to give something to a large number of individuals, or to spread or furnish something
97. f__t accomplishment *n.* a notable or impressive achievement, especially one that requires great skill or bravery
98. acc_____te the car *v.* to make something faster or earlier; to cause to develop or progress more quickly
99. royal fa_____e *n.* a short, loud, and attention-grabbing burst of sound, often to announce or celebrate something special; a flourished or ostentatious display or demonstration
100. de_____p a skill *v.* to grow or expand; to improve or refine through a process of progress and refinement, often to achieve greater sophistication or complexity; to elaborate or add detail to something that is in the process of being created
101. take several inputs sim_____sly *adv.* at the same time
102. le__r for reform *n.* a handle used to operate a vehicle or a machine; a rigid bar resting on a pivot so that one end of it can be pushed or pulled easily

ANSWERS: 94. consequence, 95. precise, 96. distribute, 97. feat, 98. accelerate, 99. fanfare, 100. develop, 101. simultaneously, 102. lever

103. gi__t trees *adj.* enormous; much bigger or more important than similar items usually are
104. a fl__h of lightning *n.* a sudden intense burst of radiant energy; a momentary brightness
105. pr_____t the future *v.* to state beforehand that something will happen in the future, mainly based on knowledge or experience
106. de___e centigrade *n.* a unit of measurement for angles, temperature, or level of proficiency or achievement; a rank or level of academic or professional attainment
107. gl__m in eyes *v.* to reflect light in a way that creates a shining or bright and attractive appearance; to become visible or apparent
108. me_____cs equation *n.* the branch of physics that deals with the study of motion, forces, and energy; (mechanic) someone whose occupation is repairing and maintaining automobiles
109. become increasingly com_____ed *adj.* involving a lot of different things or parts in a way that is difficult to understand or analyze
110. ph___n emission *n.* a unit or quantum of electromagnetic energy, typically regarded as a particle that is the basic constituent of all light and other forms of electromagnetic radiation
111. de_____p a strategy *v.* to grow or expand; to improve or refine through a process of progress and refinement, often to achieve greater sophistication or complexity; to elaborate or add detail to something that is in the process of being created

ANSWERS: 103. giant, 104. flash, 105. predict, 106. degree, 107. gleam, 108. mechanics, 109. complicated, 110. photon, 111. develop

112. theory of the un_____se *n.* everything that exists, especially all physical matter, including planets, stars, galaxies, and all other forms of matter and energy
113. va____m cleaner *n.* a space empty of matter; a device or tool used for cleaning or removing debris by creating suction
114. v__e-chair of the committee *n.* wrongdoing or wicked behavior; (in the form of vice versa) with the order reversed; (as a prefix) someone with a job immediately below a particular person
115. ad_____e a cooperative relationship *v.* to go or move forward; to develop in a positive way
116. man_____te figures *v.* to influence or control something or someone to your advantage, often in an unfair or dishonest way
117. nuclear ph_____s *n.* the science of matter and energy and their interactions
118. mi_____re version *adj.* being on a very small scale
119. curtain r_d *n.* a long, thin, straight piece of wood, metal, or other material used for support, as a weapon, or for punishment
120. the evidence of the pr_____ce *n.* the fact or state that someone or something exists, occurs, or is present
121. initial ve_____ty *n.* the rate of change of an object's position with respect to time, often measured in meters per second (m/s)

ANSWERS: 112. universe, 113. vacuum, 114. vice, 115. advance, 116. manipulate, 117. physics, 118. miniature, 119. rod, 120. presence, 121. velocity

122. va___m packing *n.* a space empty of matter; a device or tool used for cleaning or removing debris by creating suction
123. ac_____te measurements *adj.* correct and exact in all details
124. 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
125. sp_____ng wheel *n.* the act of rotating rapidly around an axis; in the context of textiles, the process of twisting fibers together to form thread or yarn
126. officious int_____nce *n.* the act or process of getting involved in and trying to influence a specific situation; the state of being affected and influenced with
127. pr_____le in business *n.* a fundamental law or truth that explains or controls how something happens or works
128. built-up m__t *n.* a long pole aboard a boat or ship that holds up the sails
129. take an un_____in attitude *adj.* not being sure of something; not being able to choose
130. fr_____nt absence *adj.* happening constantly
131. in_____ce a child's future *n.* the ability to affect someone's or something's character, growth, or behavior, or the effect itself
132. political ma_____ers *n.* a motion or combination of moves that requires skill and care; a clever strategy, activity, or movement intended to give someone an advantage

ANSWERS: 122. vacuum, 123. accurate, 124. degree, 125. spinning, 126. interference, 127. principle, 128. mast, 129. uncertain, 130. frequent, 131. influence, 132. maneuver

133. a tr___y recipe to follow *adj.* requiring care and skill because challenging to do or deal with
134. a nation's right to go___n *v.* to legally control and direct a country, city, group of people, etc. and be responsible for introducing new laws, organizing and maintaining public services
135. pr_____e analyses *adj.* sharply exact or accurate or delimited
136. do_____te over the weak *v.* to have or control a lot of power and influence over somebody or something
137. a r_w of cherry trees *n.* an arrangement of objects or people side by side in a line
138. pr_____t when she will arrive *v.* to state beforehand that something will happen in the future, mainly based on knowledge or experience
139. tu___l disease *n.* an underground or underwater passage, typically for trains or cars
140. in___t a graphic *v.* to put something inside something else
141. mi_____ze a loss *v.* to make something, especially something bad, small or less serious
142. his research area of
con_____ion *n.* the ability to focus all your time and energy on one thing without thinking about anything else.
143. s__t a bullet *v.* to eject saliva or other liquid from the mouth
144. ev___e over the past decade *v.* to develop gradually, or to cause the development of something or someone gradually

ANSWERS: 133. tricky, 134. govern, 135. precise, 136. dominate, 137. row, 138. predict, 139. tunnel, 140. insert, 141. minimize, 142. concentration, 143. spit, 144. evolve

145. s__k a lot of capital *v.* to submerge or go down below the surface of a liquid or substance; to decline or deteriorate; to cause something to go down into a liquid substance or sink into something else
146. come into co_____on with my friend *n.* an instance of two or more objects or entities crashing into each other, usually resulting in damage, impact, or conflict
147. con_____ion of armaments *n.* the ability to focus all your time and energy on one thing without thinking about anything else.
148. take ad_____ge of his weak points *n.* a condition or circumstance that puts one in a favorable or superior position; a beneficial feature or asset that someone or something has
149. mo_____nt of troops *n.* a group of people working together to achieve a shared goal, especially a political, social, or artistic one; the process of moving or being moved, physically or figuratively
150. high ve_____ty *n.* the rate of change of an object's position with respect to time, often measured in meters per second (m/s)
151. s__k a buzzer-beater *v.* to submerge or go down below the surface of a liquid or substance; to decline or deteriorate; to cause something to go down into a liquid substance or sink into something else
152. colonnaded ar___e *n.* a covered passageway or walkway, often lined with shops or restaurants; a series of arches supported by columns; a type of video game in which the player controls a character moving through a series of levels and obstacles

ANSWERS: 145. sink, 146. collision, 147. concentration, 148. advantage, 149. movement, 150. velocity, 151. sink, 152. arcade

153. pos_____ty of a major earthquake *n.* a chance that something may happen or be true
154. acc_____te a chemical reaction *v.* to make something faster or earlier; to cause to develop or progress more quickly
155. flow of el_____ons *n.* a tiny particle with the negative electrical charge
156. the grand ch_____on *n.* someone who has won first place in a competition; someone who fights for a specific group of people or a belief
157. a ch_____on of peace *n.* someone who has won first place in a competition; someone who fights for a specific group of people or a belief
158. ev_____t to all *adj.* apparent to the mind, senses, or judgment

ANSWERS: 153. possibility, 154. accelerate, 155. electron, 156. champion, 157. champion, 158. evident

Session 3: Fill in the Blanks

1. The security camera has _____ four intruders.
v. to find or recognize something, especially something difficult to see, hear, etc.
2. The government tried to _____ the commercialization of this development.
v. to make something faster or earlier; to cause to develop or progress more quickly
3. She tried to _____ out the gum that she had been chewing.
v. to eject saliva or other liquid from the mouth
4. She was _____ about her friend's intentions.
adj. not being sure of something; not being able to choose
5. The _____ of getting the disease will drastically increase.
n. a chance that something may happen or be true
6. The _____ of waves can result in either constructive or destructive interference.
n. a principle in physics that describes the combination or overlaying of two or more waves or states of matter; (of geology) the process by which layers of rock or sediment are deposited on top of one another over time
7. Unfortunately, the radio _____ made it difficult to hear the broadcast.
n. the act or process of getting involved in and trying to influence a specific situation; the state of being affected and influenced with
8. These heavy rains caused _____ floods on several islands.
n. a sudden intense burst of radiant energy; a momentary brightness

ANSWERS: 1. detected, 2. accelerate, 3. spit, 4. uncertain, 5. possibility, 6. superposition, 7. interference, 8. flash

9. He was the leader of the demonstrators and spoke out against the war in the front ____.
- n.* an arrangement of objects or people side by side in a line
10. These economic activities had disastrous environmental _____.
- n.* the outcome of a particular action or event, especially relative to an individual
11. It seems _____ that he has forgotten our scheduled meeting.
- adj.* likely to happen or likely to be true
12. The team arrived in a flurry of _____ after winning the championship.
- n.* a short, loud, and attention-grabbing burst of sound, often to announce or celebrate something special; a flourish or ostentatious display or demonstration
13. The workers had to dig through solid rock to create the vehicular _____ allowing the cars to pass through the mountain.
- n.* an underground or underwater passage, typically for trains or cars
14. The _____ of the dancers on stage was graceful and elegant.
- n.* a group of people working together to achieve a shared goal, especially a political, social, or artistic one; the process of moving or being moved, physically or figuratively
15. Health and _____ are, above all, gold.
- n.* the quality or state of being physically, or sometimes mentally, strong
16. His estate was _____ to his sons.
- v.* to give something to a large number of individuals, or to spread or furnish something

ANSWERS: 9. row, 10. consequences, 11. probable, 12. fanfare, 13. tunnel, 14. movement, 15. strength, 16. distributed

17. I bought a gadget before my trip to help _____ stress during the flight.

v. to make something, especially something bad, small or less serious

18. The _____ jets gradually dominate the world's airlines.

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

19. His writing style was _____ with a clear and concise voice.

adj. having a quality or characteristic that makes it stand out from others

20. Two students answered the teacher's question _____.

adv. at the same time

21. The tornado is _____ across the countryside, destroying everything in its path.

v. to cause something to rotate rapidly; to cause someone to feel dizzy or disoriented

22. The _____ is about 13.8 billion years old.

n. everything that exists, especially all physical matter, including planets, stars, galaxies, and all other forms of matter and energy

23. He used a fishing _____ to catch the biggest fish of the day.

n. a long, thin, straight piece of wood, metal, or other material used for support, as a weapon, or for punishment

24. 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

ANSWERS: 17. minimize, 18. giant, 19. distinctive, 20. simultaneously, 21. spinning, 22. universe, 23. rod, 24. molecule

25. He did _____ pen-and-ink drawings in just a few days.

adj. involving a lot of different things or parts in a way that is difficult to understand or analyze

26. We have discussed the entirety of this _____ problem.

adj. requiring care and skill because challenging to do or deal with

27. The regulations _____ medical malpractice claims are rigorous.

v. to legally control and direct a country, city, group of people, etc. and be responsible for introducing new laws, organizing and maintaining public services

28. Nevada is _____ a desert state.

adv. virtually entirely; to a large degree

29. Eyeless fish _____ in dark caves.

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

30. The _____ bicyclist outrode all his competitors.

n. someone who has won first place in a competition; someone who fights for a specific group of people or a belief

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

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

32. Cats hate dogs and _____ versa.

n. wrongdoing or wicked behavior; (in the form of vice versa) with the order reversed; (as a prefix) someone with a job immediately below a particular person

ANSWERS: 25. complicated, 26. tricky, 27. governing, 28. largely, 29. evolved, 30. champion, 31. predict, 32. vice

33. The outermost _____ shell determines the chemical properties of an atom.
n. a tiny particle with the negative electrical charge
34. 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
35. His heartaches are less _____ now.
adj. happening constantly
36. She took a _____ class at the gym to improve her cardiovascular fitness.
n. the act of rotating rapidly around an axis; in the context of textiles, the process of twisting fibers together to form thread or yarn
37. The _____ of the car was too fast for the road conditions.
n. the rate of change of an object's position with respect to time, often measured in meters per second (m/s)
38. Jockey's superior _____ brought him victory.
n. a particular way or art of doing something that needs skill
39. The _____ course was challenging but fun.
n. a thing that blocks one's way or prevents or hinders progress
40. The _____ of tectonic plates can result in new mountain ranges, such as the Himalayas or the Alps.
n. an instance of two or more objects or entities crashing into each other, usually resulting in damage, impact, or conflict

ANSWERS: 33. electron, 34. particles, 35. frequent, 36. spinning, 37. velocity, 38. technique, 39. obstacle, 40. collision

41. The diamond ring _____ in the sunlight, catching everyone's eye.
v. to reflect light in a way that creates a shining or bright and attractive appearance; to become visible or apparent
42. It is an incredible _____ to climb Mount Everest, the highest mountain in the world.
n. a notable or impressive achievement, especially one that requires great skill or bravery
43. This initiative will be a _____ for increasing company sales.
n. a handle used to operate a vehicle or a machine; a rigid bar resting on a pivot so that one end of it can be pushed or pulled easily
44. One _____ of success is having a positive attitude and a strong work ethic.
n. a factor, circumstance, or condition that contributes to the shaping, influencing, or determining of a particular outcome or result
45. This exam requires excellent _____ to pass.
n. the ability to focus all your time and energy on one thing without thinking about anything else.
46. With _____ joy, he signed his name.
adj. apparent to the mind, senses, or judgment
47. 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
48. The content is _____ and informative for me.
adj. sharply exact or accurate or delimited

ANSWERS: 41. gleamed, 42. feat, 43. lever, 44. determinant, 45. concentration, 46. evident, 47. degree, 48. precise

49. He was attempting to confuse his _____.

- n.* a person against whom you are playing or fighting in a game, competition, debate, etc.

50. Please tell me how to _____ this computer.

- v.* to influence or control something or someone to your advantage, often in an unfair or dishonest way

51. He _____ hypotheses that no mathematician has ever imagined before.

- v.* to build or create something; to assemble or combine different parts to form something whole

52. The perspective of his right brain _____ his consciousness.

- v.* to have or control a lot of power and influence over somebody or something

53. He did complicated pen-and-ink drawings like medieval _____.

- adj.* being on a very small scale

54. She _____ a new chapter into her manuscript.

- v.* to put something inside something else

55. The official transcript contains _____ academic records.

- adj.* correct and exact in all details

56. We _____ to achieve more wages and safer working conditions.

- v.* to wallop somebody or something with the hand, fist, or weapon; to have an emotional or cognitive impact upon

57. The path to a solid online _____ necessitates a high technical ability.

- n.* the fact or state that someone or something exists, occurs, or is present

ANSWERS: 49. opponent, 50. manipulate, 51. constructs, 52. dominates, 53. miniatures, 54. inserted, 55. accurate, 56. strike, 57. presence

58. Scientific knowledge will _____ significantly with the power of AI.
v. to go or move forward; to develop in a positive way
59. He studied _____ in college and now works as an engineer.
n. the branch of physics that deals with the study of motion, forces, and energy; (mechanic) someone whose occupation is repairing and maintaining automobiles
60. Please use the _____ to clean up the mess on the floor.
n. a space empty of matter; a device or tool used for cleaning or removing debris by creating suction
61. I like to _____ with a good book after a long day at work.
v. to relax and release tension, often by engaging in leisure activities or by simply resting; to reverse the winding or twisting of something
62. The public _____ was filled with the sound of children laughing and playing games.
n. a covered passageway or walkway, often lined with shops or restaurants; a series of arches supported by columns; a type of video game in which the player controls a character moving through a series of levels and obstacles
63. In this class, we learn the basic _____ of the plane.
n. a motion or combination of moves that requires skill and care; a clever strategy, activity, or movement intended to give someone an advantage
64. The _____ of the project being completed on time is uncertain.
n. the probability or chance that something will happen or be the case
65. This star is _____ to the naked eye.
adj. able to see or understand easily or clearly

ANSWERS: 58. advance, 59. mechanics, 60. vacuum, 61. unwind, 62. arcade, 63. maneuver, 64. likelihood, 65. apparent

66. The systems we have developed has accepted as industry _____.
n. something that is regarded as usual, typical, or standard
67. Big techs are now eager to develop _____ computers.
n. the smallest amount or unit of something, especially (electromagnetic) energy
68. The former emperor had a particular _____ even after he abdicated.
n. the ability to affect someone's or something's character, growth, or behavior, or the effect itself
69. Efficiency isn't an essential _____ here; fairness is.
n. a fundamental law or truth that explains or controls how something happens or works
70. They found a _____ place to play catch.
adj. valuable and convenient; easy or ready to reach or use
71. The main cabin is located in front of the _____.
n. a long pole aboard a boat or ship that holds up the sails
72. He studied the _____ of radiation.
n. the science of matter and energy and their interactions
73. 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

ANSWERS: 66. norms, 67. quantum, 68. influence, 69. principle, 70. handy, 71. mast, 72. physics, 73. observe

74. Infrared cameras detect _____ in the infrared range of the electromagnetic spectrum.
- n.* a unit or quantum of electromagnetic energy, typically regarded as a particle that is the basic constituent of all light and other forms of electromagnetic radiation
75. The _____ party strongly disagreed with the government's proposed legislation.
- n.* the act of disagreeing or resisting; the state of strong disagreement
76. We must _____ a new system to streamline our workflow and increase efficiency.
- v.* to grow or expand; to improve or refine through a process of progress and refinement, often to achieve greater sophistication or complexity; to elaborate or add detail to something that is in the process of being created
77. One of the main _____ of the new product is its increased efficiency.
- n.* a condition or circumstance that puts one in a favorable or superior position; a beneficial feature or asset that someone or something has
78. The abandoned ship slowly began to _____ into the murky waters of the harbor.
- v.* to submerge or go down below the surface of a liquid or substance; to decline or deteriorate; to cause something to go down into a liquid substance or sink into something else
79. The motion of planets can be described using _____ mechanics.
- adj.* relating to Sir Isaac Newton or his laws of motion and universal gravitation

ANSWERS: 74. photons, 75. opposition, 76. develop, 77. advantages, 78. sink, 79. Newtonian