

# Englist.me



## Vocabulary Builder Reference from...

Aaron O'Connell: Making sense of a visible quantum object | TED Talk

[https://www.ted.com/talks/aaron\\_o\\_connell\\_making\\_sense\\_of\\_a\\_visible\\_quantum\\_object](https://www.ted.com/talks/aaron_o_connell_making_sense_of_a_visible_quantum_object)

### All Words

#### IMPORTANT

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## Session 1: Word List

### representation

*n.* the act of speaking, acting, or being present on behalf of someone officially; a statement of facts and reasons made in appealing or protesting

*synonym*: delegacy, manifestation, expression

(1) sales **representation**, (2) binary **representation**

A person who has been declared incompetent should have legal **representation**.

### brain

*n.* the organ inside the head that is responsible for one's movement, thought, memory, and feeling

*synonym*: intellect, mind, encephalon

(1) basic **brain** function, (2) permanent **brain** damage

X-rays revealed a small tumor in his **brain**.

### intuitive

*adj.* obtained through feelings rather than facts or proof

*synonym*: involuntary, instinctive, innate

(1) **intuitive** eating, (2) **intuitive** judgment

I had an **intuitive** feeling that I might be pregnant.

### aptitude

*n.* a natural ability or talent for something; suitability or fitness for a particular task or kind of work

*synonym*: ability, talent, skill

(1) **aptitude** test, (2) natural **aptitude**

Her **aptitude** for mathematics helped her excel in her engineering courses at college.

## hemisphere

*n.* half of the terrestrial globe; half of a sphere

(1) northern **hemisphere**, (2) cerebral **hemisphere**

This weather pattern is unique to the southern **hemisphere**.

## plot

*n.* a secret plan or scheme to achieve a specific goal; the plan or main story of a literary work; (verb) to plan secretly, usually something illegal

*synonym*: scheme, plan, design

(1) **plot** twist, (2) **plot** a revolution

The **plot** of the novel centers around a group of friends who uncover a conspiracy to control the world's water supply.

## entirely

*adv.* completely

*synonym*: completely, fully, totally

(1) **entirely** satisfied with the meal, (2) he was **entirely** to blame

Later, his claim was found to be **entirely** false.

## opt

*v.* to make a choice from a range of possibilities

*synonym*: choose, select, pick

(1) **opt** out of society, (2) **opt** for a traditional wedding

I decided to **opt** for premature retirement.

## extreme

*adj.* very great in amount or degree

*synonym*: farthestmost, outermost, fierce

(1) **extreme** sports, (2) **extreme** weather events

Solar gravity creates **extreme** pressures and temperatures.

## mutual

*adj.* common to or shared by two or more parties

*synonym*: shared, common, joint

(1) share of a **mutual** fund, (2) **mutual** efforts

They cooperated for their **mutual** benefit.

## exclusive

*adj.* not divided or shared with others

*synonym* : sole, deluxe, limited

(1) **exclusive** authority, (2) **exclusive** clubs

The condo offers **exclusive** access to the beach.

## experimental

*adj.* relating to or based on new ideas, forms, methods, etc. that have not been tried before, usually to find out what effect they have

*synonym* : empirical, exploratory, observed

(1) **experimental** data, (2) **experimental** design

The product is still in the **experimental** stage.

## 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.

## 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.

## logic

*n.* a way of thinking or reasoning conducted or evaluated by strict validity principles; the study of correct reasoning or good arguments

*synonym* : reasoning, reason, ratiocination

(1) an indisputable **logic**, (2) a demonstration in **logic**

There's no **logic** in his description.

## string

*n.* long, thin material used for tying things together, composed of several twisted threads

*synonym* : line, wire, rope

(1) retie the **string** and make it strong, (2) tense piano **strings**

She wore a **string** of pearls around her neck.

## 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.

## intuition

*n.* the ability to understand or know something without reasoning or evidence; a feeling that guides a person to do or believe something without fully understanding why

*synonym*: instinct, gut feeling, sixth sense

(1) creative **intuition**, (2) **intuition** research

Some studies suggest that people's **intuitions** can be influenced by their experiences and biases.

## experiment

*n.* the scientific test conducted to observe what happens and gain new knowledge

*synonym*: experimentation, investigation

(1) **experiment** design, (2) series of **experiments**

His **experiments** showed highly positive results.

## 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.

## 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.

## toddler

*n.* a young child who has recently learned to walk  
*synonym* : child, infant, youngster

(1) an active **toddler**, (2) **toddler** in nappy

A **toddler** needs constant supervision and firm control.

## bet

*v.* to risk money on the result of an event or a competition, such as a race or game, to get more money; to have faith or confidence in something

*synonym* : stake, wager, gamble

(1) **bet** on a race, (2) **bet** my future

I **bet** that you know it.

## conceptual

*adj.* related to or founded on ideas, principles

*synonym* : theoretical, abstract, ideational

(1) **conceptual** art, (2) new **conceptual** framework

He has absolutely no **conceptual** comprehension of maths.

## 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.

## observation

*n.* the act or activity of carefully examining or monitoring something or someone

*synonym* : watching, notice, reflection

(1) class **observation** day, (2) **observation** instrument

In the hospital, she will remain under constant **observation**.

## 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.

## physics

*n.* the science of matter and energy and their interactions  
(1) nuclear **physics**, (2) laws of **physics**  
He studied the **physics** of radiation.

## mechanical

*adj.* operated by a machine, relating to or concerned with machinery or tools  
*synonym*: machinelike, automated, automatic  
(1) a **mechanical** style of writing, (2) the influence of **mechanical** action  
A **mechanical** engineer is still in demand in many companies.

## 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.

## chip

*n.* a small fragment of something broken off from the whole; a long and thin piece of potato fried in oil or fat  
*synonym*: flake, fragment, chunk  
(1) a **chip** of wood, (2) I don't care a **chip**  
We can use this campaign as a bargaining **chip** in the negotiations.

## 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.

## photograph

*n.* a picture or image that is produced by a camera; a visual representation or record of a person, object, or scene that has been captured electronically or on film  
*synonym*: photo, picture, snapshot

(1) **photograph** album, (2) **photograph** memories  
I found an old **photograph** of my grandparents from their wedding day.

## zoom

*v.* to move along very quickly; (noun) the act of rising upward into the air

*synonym*: move quickly, dive, buzz

(1) **zoom** in on a photo, (2) **zoom** lens

He **zoomed** back in time to the soccer game.

## chunk

*n.* a thick and solid mass or piece of something

*synonym*: block, lump, piece

(1) a **chunk** of money, (2) a tiny **chunk** of meat

The new start-up company carved out a large **chunk** of the market within a year.

## stick

*v.* to put something, usually a sharp object, into something; to restrict yourself to doing or using one certain thing and not change; (noun) a thin piece of wood or other material

*synonym*: pierce, adhere, stay

(1) **stick** a key in a lock, (2) fire **stick**

You **stick** a bill in the change machine, and the coins pop out.

## ledge

*n.* a narrow, flat surface or shelf that juts out from a wall or cliff; a projecting rib or molding along the edge of a surface

*synonym*: shelf, edge, brink

(1) **ledge** overlooking the ocean, (2) wooden **ledge**

He stood on the narrow **ledge**, looking down at the busy street below.

## silicon

*n.* a chemical element with the symbol Si that is a hard, brittle crystalline solid with a blue-grey metallic luster and used for the transistors and integrated circuit chips in computers

(1) **silicon** wafer, (2) crystalline **silicon**

**Silicon** is the second most abundant element on earth after oxygen.

## wafer

*n.* a thin, flat, crisp biscuit or cake, often used as a communion element in religious services; a thin slice or piece of semiconductor material used in the production of computer chips and other electronic devices

*synonym*: thin cake, biscuit, disk

(1) strawberry **wafer**, (2) **wafer** cleaning system

The solar panel uses high-quality silicon **wafers** to convert sunlight into electricity efficiently.

## crank

*n.* a mechanical device that converts rotary motion into linear motion or vice versa; an eccentric or unpredictable person

*synonym*: eccentric, oddball, kook

(1) **crank** handle, (2) **crank** caller

The fishing reel had a **crank** that made it easy to reel in the catch.

## underneath

*adv.* under or below something else

*synonym*: below, under, beneath

(1) **underneath** the surface of the water, (2) **underneath** the laughter

The penny fell **underneath** the piano.

## device

*n.* a piece of equipment, tool, or technology that serves a particular purpose or function, often mechanical or electronic

*synonym*: gadget, instrument, tool

(1) electronic **device**, (2) tracking **device**

I always carry a backup **device** in case my phone runs out of battery.

## analogy

*n.* a comparison between similar things that have similar aspects, often used to help explain a principle or



concept

*synonym*: metaphor, comparison, parallel

(1) draw **analogy**, (2) historical **analogy**

Some kinds of machine learning models show an **analogy** to how people learn.

**uncomfortable**

*adj.* providing or feeling physical discomfort or slight pain

*synonym*: comfortless, discomfoting, painful

(1) an **uncomfortable** silence, (2) with an **uncomfortable** face

His abusive words made me **uncomfortable**.

**elevator**

*n.* a mechanical device used for vertical transportation, typically in multi-story buildings, consisting of a compartmentalized platform that moves between floors

*synonym*: lift, hoist

(1) **elevator** ride, (2) modern **elevator**

The hotel's **elevator** was out of order, so we had to take the stairs to our room on the fifth floor.

**frank**

*adj.* honest and sincere; open and candid in expression

*synonym*: candid, direct, freehearted

(1) **frank** and open discussion, (2) make a **frank** apology

Full involvement means **frank** and prompt responses.

**scare**

*v.* to frighten a person or animal, or to become frightened

*synonym*: frighten, spook, intimidate

(1) **scare** off her attacker by screaming, (2) **scare** the birds away

We hit the ground to **scare** out the rabbits.

**inanimate**

*adj.* not having life or spirit; not animate

*synonym*: lifeless, inert, passive

(1) **inanimate** nature, (2) **inanimate** matter

The **inanimate** object was not capable of movement or feeling.

- fellow** *adj.* someone who has the same job or interests as you, or is in the same class, profession, or situation as you  
*synonym* : buddy, mate, affiliate  
(1) junior **fellow**, (2) nice **fellow**  
He is the kind of **fellow** who only works for his success.
- 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.
- fraction** *n.* a small part or item forming a piece of a whole; the quotient of two rational numbers  
*synonym* : piece, part, fragment  
(1) a **fractional** share of the vote, (2) a numerator in a **fraction**  
He spent only a **fraction** of his earnings.
- 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.
- absolute** *adj.* perfect or complete or to the most considerable degree possible  
*synonym* : complete, infrangible, indisputable  
(1) **absolute** loyalty, (2) an **absolute** must  
Gandhi had an **absolute** zeal for nonviolence.
- vibrate** *v.* to move or cause anything to move fast and in small increments from side to side  
*synonym* : oscillate, convulse, jerk  
(1) **vibrate** at a regular frequency, (2) **vibrate** with anger  
During the flight, the wings of the plane **vibrate**.

## expand

*v.* to increase or to make something greater in size, number, or importance

*synonym*: extend, grow, boost

(1) **expand** a lineup, (2) **expand** agricultural output

They hope to **expand** their business worldwide.

## contract

*n.* a legally binding agreement between two or more parties, setting out their rights and obligations to each other, typically in writing and enforceable by law

*synonym*: agreement, deal, arrangement

(1) employment **contract**, (2) **contract** law

The company signed a **contract** with the supplier for the delivery of goods.

## bellows

*n.* a device consisting of a bag or chamber with flexible sides that is expanded and contracted to draw in air through a valve and then force it out through a tube; a device used to blow air into a fire to make it burn more intensely

*synonym*: blower, puffer, blaster

(1) **bellows** pump, (2) blow a **bellows**

The blacksmith's apprentice operated the **bellows** to maintain the forge's heat.

## gentle

*adj.* having or showing a kindly or tender nature; soft and mild

*synonym*: mild, delicate, soft

(1) in a **gentle** voice, (2) **gentle** downward slope

Her **gentle** manner relaxed everyone there.

## nudge

*v.* to push someone or something gently, especially with your elbow, to attract the person's attention; (noun) a small push or prod to encourage a desired action or behavior

*synonym*: bump, elbow, (noun) prod

(1) **nudge** price levels up, (2) give a person a **nudge**

The teacher **nudged** the student to get his attention and

asked him a question.

## fantastic

*adj.* extremely good; excellent

*synonym*: incredible, unbelievable, marvelous

(1) a **fantastic** dress, (2) absolutely **fantastic** event

The new amusement park ride was **fantastic**, with twists, turns, and drops that left riders screaming with excitement.

## atom

*n.* the smallest unit of ordinary matter that forms a chemical element, composed of a nucleus and one or more electrons bound to the nucleus

*synonym*: particle, element, fraction

(1) oxygen **atom**, (2) neutral hydrogen **atoms**

The outermost electron shell of an **atom** determines its chemical characteristics.

## trillion

*n.* the number 1,000,000,000,000; a million million

(1) **trillion** cubic feet, (2) many **trillions** of dollars

One light year is nearly 6 **trillion** miles.

## 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.

## align

*v.* to put or arrange two or more things in a straight line or to form a straight line

*synonym*: coordinate, regulate, adjust

(1) **align** the economic interest of each other, (2) **align** with a historical trend

Both parties are now entirely ideologically **aligned**.

## localize

*v.* to restrict or confine something to a specific area or location; to adapt or translate something for a particular region or market

*synonym*: place, pinpoint, identify

(1) **localize** an infection, (2) **localize** the problem  
It is crucial to quickly **localize** the source of the contamination to prevent further spread of the virus.

## conscious

*adj.* being aware of and able to respond to what is happening around you

*synonym*: aware, cognizant, deliberate

(1) **conscious** effort, (2) **conscious** of having succeeded  
He became **conscious** that he was being followed.

## handle

*v.* to deal with a situation, problem, or strong emotion

*synonym*: control, manage, deal with

(1) **handle** a precious object, (2) **handled** the incident  
We all should learn how to **handle** stress.

## cram

*v.* to force or try to fit a large amount of information into a short time, especially in preparation for an examination; to force or try to fit a large amount of something into a small space

*synonym*: stuff, pack, jam

(1) **cram** more circuits into chips, (2) **cram** five people into a car

She had to **cram** for the final exam and stayed up all night studying.

## interconnect

*v.* to connect similar things

*synonym*: interlink, complect, annex

(1) directly **interconnect** with those systems, (2) human activities **interconnect** with the environment

Our system can now **interconnect** with other databases.

## define

*v.* to state or explain precisely the nature, scope, or meaning of something

*synonym*: characterize, depict, express

(1) **define** a word, (2) **define** my position

To advance this discussion, we must **define** "success"

rigorously.

## profound

*adj.* extremely great; sensed or experienced very strongly;  
displaying a high level of knowledge or comprehension

*synonym*: deep, unsounded, far-reaching

(1) a **profound** book, (2) the **profound** depths of the sea

My mother's illness had a **profound** impact on us all.

## Session 2: Spelling

1. make a fr\_\_k apology *adj.* honest and sincere; open and candid in expression
2. va\_\_\_m cleaner *n.* a space empty of matter; a device or tool used for cleaning or removing debris by creating suction
3. el\_\_\_\_\_or ride *n.* a mechanical device used for vertical transportation, typically in multi-story buildings, consisting of a compartmentalized platform that moves between floors
4. natural ap\_\_\_\_\_de *n.* a natural ability or talent for something; suitability or fitness for a particular task or kind of work
5. absolutely fa\_\_\_\_\_ic event *adj.* extremely good; excellent
6. vi\_\_\_\_\_e with anger *v.* to move or cause anything to move fast and in small increments from side to side
7. he was en\_\_\_\_\_ly to blame *adv.* completely
8. c\_\_m more circuits into chips *v.* to force or try to fit a large amount of information into a short time, especially in preparation for an examination; to force or try to fit a large amount of something into a small space
9. ha\_\_\_e a precious object *v.* to deal with a situation, problem, or strong emotion
10. blow a be\_\_\_\_\_s *n.* a device consisting of a bag or chamber with flexible sides that is expanded and contracted to draw in air through a valve and then force it out through a tube; a device used to blow air into a fire to make it burn more intensely

ANSWERS: 1. frank, 2. vacuum, 3. elevator, 4. aptitude, 5. fantastic, 6. vibrate, 7. entirely, 8. cram, 9. handle, 10. bellows

11. p\_\_t a revolution *n.* a secret plan or scheme to achieve a specific goal; the plan or main story of a literary work; (verb) to plan secretly, usually something illegal
12. ex\_\_\_d agricultural output *v.* to increase or to make something greater in size, number, or importance
13. ap\_\_\_\_de test *n.* a natural ability or talent for something; suitability or fitness for a particular task or kind of work
14. a mec\_\_\_\_\_al style of writing *adj.* operated by a machine, relating to or concerned with machinery or tools
15. oxygen a\_\_m *n.* the smallest unit of ordinary matter that forms a chemical element, composed of a nucleus and one or more electrons bound to the nucleus
16. series of exp\_\_\_\_\_nts *n.* the scientific test conducted to observe what happens and gain new knowledge
17. probabilistic qu\_\_\_\_\_m theory *n.* the smallest amount or unit of something, especially (electromagnetic) energy
18. z\_\_m lens *v.* to move along very quickly; (noun) the act of rising upward into the air
19. retie the st\_\_\_g and make it strong *n.* long, thin material used for tying things together, composed of several twisted threads
20. und\_\_\_\_\_th the surface of the water *adv.* under or below something else
21. laws of qu\_\_\_\_\_m mechanics *n.* the smallest amount or unit of something, especially (electromagnetic) energy

ANSWERS: 11. plot, 12. expand, 13. aptitude, 14. mechanical, 15. atom, 16. experiment, 17. quantum, 18. zoom, 19. string, 20. underneath, 21. quantum



22. a pr\_\_\_\_nd book *adj.* extremely great; sensed or experienced very strongly; displaying a high level of knowledge or comprehension
23. northern hem\_\_\_\_re *n.* half of the terrestrial globe; half of a sphere
24. ha\_\_\_\_ed the incident *v.* to deal with a situation, problem, or strong emotion
25. 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
26. theoretical ph\_\_\_\_st *n.* a scientist who specializes in the field of physics
27. wa\_\_r cleaning system *n.* a thin, flat, crisp biscuit or cake, often used as a communion element in religious services; a thin slice or piece of semiconductor material used in the production of computer chips and other electronic devices
28. 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
29. ex\_\_\_\_d a lineup *v.* to increase or to make something greater in size, number, or importance
30. a we\_\_d dress *adj.* extraordinary, unexpected, or difficult to explain

ANSWERS: 22. profound, 23. hemisphere, 24. handle, 25. mechanics, 26. physicist, 27. wafer, 28. superposition, 29. expand, 30. weird

31. draw an\_\_\_\_y *n.* a comparison between similar things that have similar aspects, often used to help explain a principle or concept
32. a c\_\_p of wood *n.* a small fragment of something broken off from the whole; a long and thin piece of potato fried in oil or fat
33. historical an\_\_\_\_y *n.* a comparison between similar things that have similar aspects, often used to help explain a principle or concept
34. c\_\_m five people into a car *v.* to force or try to fit a large amount of information into a short time, especially in preparation for an examination; to force or try to fit a large amount of something into a small space
35. connecting the d\_ts *n.* a very small circular mark, especially one that is printed
36. co\_\_\_\_\_us of having succeeded *adj.* being aware of and able to respond to what is happening around you
37. lo\_\_\_\_\_ze the problem *v.* to restrict or confine something to a specific area or location; to adapt or translate something for a particular region or market
38. a fr\_\_\_\_\_onal share of the vote *n.* a small part or item forming a piece of a whole; the quotient of two rational numbers
39. share of a mu\_\_\_\_l fund *adj.* common to or shared by two or more parties
40. in\_\_\_\_\_te matter *adj.* not having life or spirit; not animate
41. many tr\_\_\_\_\_ons of dollars *n.* the number 1,000,000,000,000; a million million

ANSWERS: 31. analogy, 32. chip, 33. analogy, 34. cram, 35. dot, 36. conscious, 37. localize, 38. fraction, 39. mutual, 40. inanimate, 41. trillion

42. sales rep\_\_\_\_\_ion *n.* the act of speaking, acting, or being present on behalf of someone officially; a statement of facts and reasons made in appealing or protesting
43. cr\_\_k caller *n.* a mechanical device that converts rotary motion into linear motion or vice versa; an eccentric or unpredictable person
44. co\_\_\_\_\_us effort *adj.* being aware of and able to respond to what is happening around you
45. obs\_\_\_\_\_on instrument *n.* the act or activity of carefully examining or monitoring something or someone
46. binary rep\_\_\_\_\_ion *n.* the act of speaking, acting, or being present on behalf of someone officially; a statement of facts and reasons made in appealing or protesting
47. 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
48. d\_t blot method *n.* a very small circular mark, especially one that is printed
49. a numerator in a fr\_\_\_\_\_on *n.* a small part or item forming a piece of a whole; the quotient of two rational numbers
50. directly int\_\_\_\_\_ect with those systems *v.* to connect similar things
51. a ch\_\_k of money *n.* a thick and solid mass or piece of something

ANSWERS: 42. representation, 43. crank, 44. conscious, 45. observation, 46. representation, 47. mechanics, 48. dot, 49. fraction, 50. interconnect, 51. chunk

52. be\_\_\_\_s pump *n.* a device consisting of a bag or chamber with flexible sides that is expanded and contracted to draw in air through a valve and then force it out through a tube; a device used to blow air into a fire to make it burn more intensely
53. pr\_\_\_\_e analyses *adj.* sharply exact or accurate or delimited
54. al\_\_n the economic interest of each other *v.* to put or arrange two or more things in a straight line or to form a straight line
55. in\_\_\_\_\_on research *n.* the ability to understand or know something without reasoning or evidence; a feeling that guides a person to do or believe something without fully understanding why
56. give a person a nu\_\_e *v.* to push someone or something gently, especially with your elbow, to attract the person's attention; (noun) a small push or prod to encourage a desired action or behavior
57. permanent br\_\_n damage *n.* the organ inside the head that is responsible for one's movement, thought, memory, and feeling
58. ex\_\_\_\_\_ve authority *adj.* not divided or shared with others
59. the pr\_\_\_\_nd depths of the sea *adj.* extremely great; sensed or experienced very strongly; displaying a high level of knowledge or comprehension
60. mu\_\_l efforts *adj.* common to or shared by two or more parties

ANSWERS: 52. bellows, 53. precise, 54. align, 55. intuition, 56. nudge, 57. brain, 58. exclusive, 59. profound, 60. mutual



72. neutral hydrogen a\_\_ms *n.* the smallest unit of ordinary matter that forms a chemical element, composed of a nucleus and one or more electrons bound to the nucleus
73. a tiny ch\_\_k of meat *n.* a thick and solid mass or piece of something
74. cerebral hem\_\_\_\_\_re *n.* half of the terrestrial globe; half of a sphere
75. sc\_\_e the birds away *v.* to frighten a person or animal, or to become frightened
76. ab\_\_\_\_\_te loyalty *adj.* perfect or complete or to the most considerable degree possible
77. in\_\_\_\_\_te nature *adj.* not having life or spirit; not animate
78. an unc\_\_\_\_\_ble silence *adj.* providing or feeling physical discomfort or slight pain
79. de\_\_\_e a word *v.* to state or explain precisely the nature, scope, or meaning of something
80. I don't care a c\_\_p *n.* a small fragment of something broken off from the whole; a long and thin piece of potato fried in oil or fat
81. to\_\_\_\_\_r in nappy *n.* a young child who has recently learned to walk
82. fr\_\_k and open discussion *adj.* honest and sincere; open and candid in expression
83. tracking de\_\_\_e *n.* a piece of equipment, tool, or technology that serves a particular purpose or function, often mechanical or electronic

ANSWERS: 72. atom, 73. chunk, 74. hemisphere, 75. scare, 76. absolute, 77. inanimate, 78. uncomfortable, 79. define, 80. chip, 81. toddler, 82. frank, 83. device

84. a demonstration in lo\_\_c                    *n.* a way of thinking or reasoning conducted or evaluated by strict validity principles; the study of correct reasoning or good arguments
85. con\_\_\_\_\_al art                            *adj.* related to or founded on ideas, principles
86. tr\_\_\_\_\_on cubic feet                    *n.* the number 1,000,000,000,000; a million million
87. junior fe\_\_\_w                                *adj.* someone who has the same job or interests as you, or is in the same class, profession, or situation as you
88. ex\_\_\_\_\_e sports                         *adj.* very great in amount or degree
89. exp\_\_\_\_\_tal data                         *adj.* relating to or based on new ideas, forms, methods, etc. that have not been tried before, usually to find out what effect they have
90. 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
91. nu\_\_e price levels up                       *v.* to push someone or something gently, especially with your elbow, to attract the person's attention; (noun) a small push or prod to encourage a desired action or behavior
92. 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

ANSWERS: 84. logic, 85. conceptual, 86. trillion, 87. fellow, 88. extreme, 89. experimental, 90. superposition, 91. nudge, 92. degree

93. modern el\_\_\_\_or *n.* a mechanical device used for vertical transportation, typically in multi-story buildings, consisting of a compartmentalized platform that moves between floors
94. tense piano st\_\_\_\_gs *n.* long, thin material used for tying things together, composed of several twisted threads
95. 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
96. electronic de\_\_\_\_e *n.* a piece of equipment, tool, or technology that serves a particular purpose or function, often mechanical or electronic
97. ge\_\_\_\_e downward slope *adj.* having or showing a kindly or tender nature; soft and mild
98. laws of ph\_\_\_\_s *n.* the science of matter and energy and their interactions
99. estimate pr\_\_\_\_e costs *adj.* sharply exact or accurate or delimited
100. al\_\_n with a historical trend *v.* to put or arrange two or more things in a straight line or to form a straight line
101. b\_t on a race *v.* to risk money on the result of an event or a competition, such as a race or game, to get more money; to have faith or confidence in something
102. pho\_\_\_\_ph memories *n.* a picture or image that is produced by a camera; a visual representation or record of a person, object, or scene that has been captured electronically or on film

ANSWERS: 93. elevator, 94. string, 95. degree, 96. device, 97. gentle, 98. physics, 99. precise, 100. align, 101. bet, 102. photograph



103. b\_t my future      *v.* to risk money on the result of an event or a competition, such as a race or game, to get more money; to have faith or confidence in something
104. le\_\_e overlooking the ocean      *n.* a narrow, flat surface or shelf that juts out from a wall or cliff; a projecting rib or molding along the edge of a surface
105. strawberry wa\_\_r      *n.* a thin, flat, crisp biscuit or cake, often used as a communion element in religious services; a thin slice or piece of semiconductor material used in the production of computer chips and other electronic devices
106. in\_\_\_\_\_ve judgment      *adj.* obtained through feelings rather than facts or proof
107. co\_\_\_\_\_ct law      *n.* a legally binding agreement between two or more parties, setting out their rights and obligations to each other, typically in writing and enforceable by law
108. a fa\_\_\_\_\_ic dress      *adj.* extremely good; excellent
109. si\_\_\_\_\_n wafer      *n.* a chemical element with the symbol Si that is a hard, brittle crystalline solid with a blue-grey metallic luster and used for the transistors and integrated circuit chips in computers
110. nice fe\_\_\_w      *adj.* someone who has the same job or interests as you, or is in the same class, profession, or situation as you

ANSWERS: 103. bet, 104. ledge, 105. wafer, 106. intuitive, 107. contract, 108. fantastic, 109. silicon, 110. fellow

111. z\_\_m in on a photo      *v.* to move along very quickly; (noun) the act of rising upward into the air
112. pho\_\_\_\_\_ph album      *n.* a picture or image that is produced by a camera; a visual representation or record of a person, object, or scene that has been captured electronically or on film
113. cr\_\_k handle      *n.* a mechanical device that converts rotary motion into linear motion or vice versa; an eccentric or unpredictable person
114. charged pa\_\_\_\_\_le      *n.* a small piece of something; a word or piece of a term with grammatical function but little or no significance
115. com\_\_\_\_\_ty theory      *n.* the state or quality of being complicated or intricate and difficult to understand
116. cognitive com\_\_\_\_\_ty      *n.* the state or quality of being complicated or intricate and difficult to understand
117. wooden le\_\_e      *n.* a narrow, flat surface or shelf that juts out from a wall or cliff; a projecting rib or molding along the edge of a surface
118. basic br\_\_n function      *n.* the organ inside the head that is responsible for one's movement, thought, memory, and feeling
119. 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: 111. zoom, 112. photograph, 113. crank, 114. particle, 115. complexity, 116. complexity, 117. ledge, 118. brain, 119. develop

120. und\_\_\_\_\_th the laughter *adv.* under or below something else
121. en\_\_\_\_\_ly satisfied with the meal *adv.* completely
122. the influence of mec\_\_\_\_\_al action *adj.* operated by a machine, relating to or concerned with machinery or tools
123. st\_\_k a key in a lock *v.* to put something, usually a sharp object, into something; to restrict yourself to doing or using one certain thing and not change; (noun) a thin piece of wood or other material
124. fire st\_\_k *v.* to put something, usually a sharp object, into something; to restrict yourself to doing or using one certain thing and not change; (noun) a thin piece of wood or other material
125. the state of being we\_\_d *adj.* extraordinary, unexpected, or difficult to explain
126. sc\_\_e off her attacker by screaming *v.* to frighten a person or animal, or to become frightened
127. new con\_\_\_\_\_al framework *adj.* related to or founded on ideas, principles
128. nuclear ph\_\_\_\_\_s *n.* the science of matter and energy and their interactions
129. an active to\_\_\_\_\_r *n.* a young child who has recently learned to walk
130. pa\_\_\_\_\_le energy *n.* a small piece of something; a word or piece of a term with grammatical function but little or no significance
131. class obs\_\_\_\_\_on day *n.* the act or activity of carefully examining or monitoring something or someone

ANSWERS: 120. underneath, 121. entirely, 122. mechanical, 123. stick, 124. stick, 125. weird, 126. scare, 127. conceptual, 128. physics, 129. toddler, 130. particle, 131. observation

132. exp\_\_\_\_\_nt design *n.* the scientific test conducted to observe what happens and gain new knowledge
133. ex\_\_\_\_\_e weather events *adj.* very great in amount or degree
134. o\_t out of society *v.* to make a choice from a range of possibilities
135. va\_\_\_\_\_m packing *n.* a space empty of matter; a device or tool used for cleaning or removing debris by creating suction
136. employment co\_\_\_\_\_ct *n.* a legally binding agreement between two or more parties, setting out their rights and obligations to each other, typically in writing and enforceable by law
137. human activities int\_\_\_\_\_ect with the environment *v.* to connect similar things
138. in\_\_\_\_\_ve eating *adj.* obtained through feelings rather than facts or proof
139. 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
140. vi\_\_\_\_\_e at a regular frequency *v.* to move or cause anything to move fast and in small increments from side to side
141. o\_t for a traditional wedding *v.* to make a choice from a range of possibilities

ANSWERS: 132. experiment, 133. extreme, 134. opt, 135. vacuum, 136. contract, 137. interconnect, 138. intuitive, 139. develop, 140. vibrate, 141. opt

142. crystalline si\_\_\_\_n

*n.* a chemical element with the symbol Si that is a hard, brittle crystalline solid with a blue-grey metallic luster and used for the transistors and integrated circuit chips in computers

ANSWERS: 142. silicon

## Session 3: Fill in the Blanks

1. In the hospital, she will remain under constant \_\_\_\_\_.  
*n.* the act or activity of carefully examining or monitoring something or someone
2. The outermost electron shell of an \_\_\_\_\_ determines its chemical characteristics.  
*n.* the smallest unit of ordinary matter that forms a chemical element, composed of a nucleus and one or more electrons bound to the nucleus
3. The penny fell \_\_\_\_\_ the piano.  
*adv.* under or below something else
4. Some studies suggest that people's \_\_\_\_\_ can be influenced by their experiences and biases.  
*n.* the ability to understand or know something without reasoning or evidence; a feeling that guides a person to do or believe something without fully understanding why
5. The product is still in the \_\_\_\_\_ stage.  
*adj.* relating to or based on new ideas, forms, methods, etc. that have not been tried before, usually to find out what effect they have
6. We all should learn how to \_\_\_\_\_ stress.  
*v.* to deal with a situation, problem, or strong emotion
7. I found an old \_\_\_\_\_ of my grandparents from their wedding day.  
*n.* a picture or image that is produced by a camera; a visual representation or record of a person, object, or scene that has been captured electronically or on film

ANSWERS: 1. observation, 2. atom, 3. underneath, 4. intuitions, 5. experimental, 6. handle, 7. photograph

8. They cooperated for their \_\_\_\_\_ benefit.

*adj.* common to or shared by two or more parties

9. During the flight, the wings of the plane \_\_\_\_\_.

*v.* to move or cause anything to move fast and in small increments from side to side

10. The \_\_\_\_\_ object was not capable of movement or feeling.

*adj.* not having life or spirit; not animate

11. His \_\_\_\_\_ showed highly positive results.

*n.* the scientific test conducted to observe what happens and gain new knowledge

12. They hope to \_\_\_\_\_ their business worldwide.

*v.* to increase or to make something greater in size, number, or importance

13. \_\_\_\_\_ is the second most abundant element on earth after oxygen.

*n.* a chemical element with the symbol Si that is a hard, brittle crystalline solid with a blue-grey metallic luster and used for the transistors and integrated circuit chips in computers

14. I had an \_\_\_\_\_ feeling that I might be pregnant.

*adj.* obtained through feelings rather than facts or proof

15. One light year is nearly 6 \_\_\_\_\_ miles.

*n.* the number 1,000,000,000,000; a million million

16. Full involvement means \_\_\_\_\_ and prompt responses.

*adj.* honest and sincere; open and candid in expression

ANSWERS: 8. mutual, 9. vibrate, 10. inanimate, 11. experiments, 12. expand, 13. Silicon, 14. intuitive, 15. trillion, 16. frank

17. You \_\_\_\_\_ a bill in the change machine, and the coins pop out.
- v.* to put something, usually a sharp object, into something; to restrict yourself to doing or using one certain thing and not change; (noun) a thin piece of wood or other material
18. We hit the ground to \_\_\_\_\_ out the rabbits.
- v.* to frighten a person or animal, or to become frightened
19. X-rays revealed a small tumor in his \_\_\_\_\_.
- n.* the organ inside the head that is responsible for one's movement, thought, memory, and feeling
20. Some kinds of machine learning models show an \_\_\_\_\_ to how people learn.
- n.* a comparison between similar things that have similar aspects, often used to help explain a principle or concept
21. 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
22. I decided to \_\_\_\_ for premature retirement.
- v.* to make a choice from a range of possibilities
23. The hotel's \_\_\_\_\_ was out of order, so we had to take the stairs to our room on the fifth floor.
- n.* a mechanical device used for vertical transportation, typically in multi-story buildings, consisting of a compartmentalized platform that moves between floors
24. I always carry a backup \_\_\_\_\_ in case my phone runs out of battery.
- n.* a piece of equipment, tool, or technology that serves a particular purpose or function, often mechanical or electronic

ANSWERS: 17. stick, 18. scare, 19. brain, 20. analogy, 21. degree, 22. opt, 23. elevator, 24. device



25. My mother's illness had a \_\_\_\_\_ impact on us all.

*adj.* extremely great; sensed or experienced very strongly; displaying a high level of knowledge or comprehension

26. The new amusement park ride was \_\_\_\_\_ with twists, turns, and drops that left riders screaming with excitement.

*adj.* extremely good; excellent

27. He stood on the narrow \_\_\_\_\_ looking down at the busy street below.

*n.* a narrow, flat surface or shelf that juts out from a wall or cliff; a projecting rib or molding along the edge of a surface

28. 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

29. Her \_\_\_\_\_ for mathematics helped her excel in her engineering courses at college.

*n.* a natural ability or talent for something; suitability or fitness for a particular task or kind of work

30. A \_\_\_\_\_ needs constant supervision and firm control.

*n.* a young child who has recently learned to walk

31. A \_\_\_\_\_ engineer is still in demand in many companies.

*adj.* operated by a machine, relating to or concerned with machinery or tools

32. He is the kind of \_\_\_\_\_ who only works for his success.

*adj.* someone who has the same job or interests as you, or is in the same class, profession, or situation as you

ANSWERS: 25. profound, 26. fantastic, 27. ledge, 28. superposition, 29. aptitude, 30. toddler, 31. mechanical, 32. fellow

33. Einstein was an outstanding and famous \_\_\_\_\_ of the 20th century.  
*n.* a scientist who specializes in the field of physics
34. The new start-up company carved out a large \_\_\_\_\_ of the market within a year.  
*n.* a thick and solid mass or piece of something
35. The \_\_\_\_\_ of the novel centers around a group of friends who uncover a conspiracy to control the world's water supply.  
*n.* a secret plan or scheme to achieve a specific goal; the plan or main story of a literary work; (verb) to plan secretly, usually something illegal
36. A person who has been declared incompetent should have legal \_\_\_\_\_.  
*n.* the act of speaking, acting, or being present on behalf of someone officially; a statement of facts and reasons made in appealing or protesting
37. He \_\_\_\_\_ back in time to the soccer game.  
*v.* to move along very quickly; (noun) the act of rising upward into the air
38. The fishing reel had a \_\_\_\_\_ that made it easy to reel in the catch.  
*n.* a mechanical device that converts rotary motion into linear motion or vice versa; an eccentric or unpredictable person
39. Gandhi had an \_\_\_\_\_ zeal for nonviolence.  
*adj.* perfect or complete or to the most considerable degree possible
40. She had to \_\_\_\_\_ for the final exam and stayed up all night studying.  
*v.* to force or try to fit a large amount of information into a short time, especially in preparation for an examination; to force or try to fit a large amount of something into a small space

ANSWERS: 33. physicist, 34. chunk, 35. plot, 36. representation, 37. zoomed, 38. crank, 39. absolute, 40. cram

41. The teacher \_\_\_\_\_ the student to get his attention and asked him a question.  
*v.* to push someone or something gently, especially with your elbow, to attract the person's attention; (noun) a small push or prod to encourage a desired action or behavior
42. It is crucial to quickly \_\_\_\_\_ the source of the contamination to prevent further spread of the virus.  
*v.* to restrict or confine something to a specific area or location; to adapt or translate something for a particular region or market
43. The content is \_\_\_\_\_ and informative for me.  
*adj.* sharply exact or accurate or delimited
44. 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
45. She wore a \_\_\_\_\_ of pearls around her neck.  
*n.* long, thin material used for tying things together, composed of several twisted threads
46. The company signed a \_\_\_\_\_ with the supplier for the delivery of goods.  
*n.* a legally binding agreement between two or more parties, setting out their rights and obligations to each other, typically in writing and enforceable by law
47. To advance this discussion, we must \_\_\_\_\_ "success" rigorously.  
*v.* to state or explain precisely the nature, scope, or meaning of something
48. He has absolutely no \_\_\_\_\_ comprehension of maths.  
*adj.* related to or founded on ideas, principles

ANSWERS: 41. nudged, 42. localize, 43. precise, 44. complexity, 45. string, 46. contract, 47. define, 48. conceptual

49. Both parties are now entirely ideologically \_\_\_\_\_.

*v.* to put or arrange two or more things in a straight line or to form a straight line

50. Our system can now \_\_\_\_\_ with other databases.

*v.* to connect similar things

51. He studied the \_\_\_\_\_ of radiation.

*n.* the science of matter and energy and their interactions

52. The condo offers \_\_\_\_\_ access to the beach.

*adj.* not divided or shared with others

53. Later, his claim was found to be \_\_\_\_\_ false.

*adv.* completely

54. He became \_\_\_\_\_ that he was being followed.

*adj.* being aware of and able to respond to what is happening around you

55. I \_\_\_ that you know it.

*v.* to risk money on the result of an event or a competition, such as a race or game, to get more money; to have faith or confidence in something

56. This weather pattern is unique to the southern \_\_\_\_\_.

*n.* half of the terrestrial globe; half of a sphere

57. The solar panel uses high-quality silicon \_\_\_\_\_ to convert sunlight into electricity efficiently.

*n.* a thin, flat, crisp biscuit or cake, often used as a communion element in religious services; a thin slice or piece of semiconductor material used in the production of computer chips and other electronic devices

ANSWERS: 49. aligned, 50. interconnect, 51. physics, 52. exclusive, 53. entirely, 54. conscious, 55. bet, 56. hemisphere, 57. wafers

58. Big techs are now eager to develop \_\_\_\_\_ computers.  
*n.* the smallest amount or unit of something, especially (electromagnetic) energy
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. His abusive words made me \_\_\_\_\_.  
*adj.* providing or feeling physical discomfort or slight pain
61. We can use this campaign as a bargaining \_\_\_\_\_ in the negotiations.  
*n.* a small fragment of something broken off from the whole; a long and thin piece of potato fried in oil or fat
62. The wallpaper had a pattern of pink \_\_\_\_\_ on a white surface.  
*n.* a very small circular mark, especially one that is printed
63. Solar gravity creates \_\_\_\_\_ pressures and temperatures.  
*adj.* very great in amount or degree
64. He spent only a \_\_\_\_\_ of his earnings.  
*n.* a small part or item forming a piece of a whole; the quotient of two rational numbers
65. 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

ANSWERS: 58. quantum, 59. mechanics, 60. uncomfortable, 61. chip, 62. dots, 63. extreme, 64. fraction, 65. vacuum

66. 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

67. My computer has been acting \_\_\_\_\_ recently.

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

68. The blacksmith's apprentice operated the \_\_\_\_\_ to maintain the forge's heat.

*n.* a device consisting of a bag or chamber with flexible sides that is expanded and contracted to draw in air through a valve and then force it out through a tube; a device used to blow air into a fire to make it burn more intensely

69. There's no \_\_\_\_\_ in his description.

*n.* a way of thinking or reasoning conducted or evaluated by strict validity principles; the study of correct reasoning or good arguments

70. 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

71. Her \_\_\_\_\_ manner relaxed everyone there.

*adj.* having or showing a kindly or tender nature; soft and mild

ANSWERS: 66. particles, 67. weird, 68. bellows, 69. logic, 70. develop, 71. gentle