# **Englist.me**

# Vocabulary Builder Reference from...

Li-Huei Tsai: Could we treat Alzheimer's with light and sound? | TED Talk

https://www.ted.com/talks/li\_huei\_tsai\_could\_we\_trea

t\_alzheimer\_s\_with\_light\_and\_sound



# **All Words**

#### **IMPORTANT**

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# **Session 1: Word List**

#### tremendous

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

*synonym*: enormous, giant, immense

(1) **tremendous** amount, (2) **tremendous** popularity We had a **tremendous** time yesterday.

#### brainwave

 a sudden idea or inspiration; a moment of great insight or creativity

*synonym*: inspiration, brainstorm, revelation

(1) brainwave idea, (2) sudden brainwave

The engineer had a **brainwave** and redesigned the product to be more efficient.

### neuroscience

- the scientific study of the function, structure, and disorder of the brain and the nervous system
- (1) the branch of **neuroscience**, (2) a theoretical concept in **neuroscience**

Our university is famous for its professors, who are well-versed in behavioral **neuroscience**.

#### brain

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

*synonym*: intellect, mind, encephalon

(1) basic <b>brain</b> function,	(2) permanent <b>brain</b> damage
X-rays revealed a small t	umor in his <b>brain</b> .

#### generate

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

*synonym*: create, yield, produce

(1) **generate** more electricity, (2) **generate** \$100 a month The economic stimulation program would **generate** a lot of new jobs.

### pace

- n. the speed at which someone or something moves, or the rate at which something happens or changes
- synonym: gait, rate, speed
- at your own pace, (2) the runner's pace
   The economy is growing at a supercharged pace.

### frequency

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

synonym: recurrence, repetition, regularity

- (1) frequency band, (2) high frequency
- The oscillator hunts for the correct **frequency**.

### transmit

- v. to send or forward an electronic signal; to pass something from one person or thing to another synonym: convey, share, dispatch
- (1) **transmit** the disease, (2) **transmit** information

  Parents often **transmit** their characteristics to their children.

### coordinate

v. to bring the different parts of the activity and the people into an organized, ordered, or efficient relationship; (adjective) of equal importance, rank, or degree

synonym: organize, harmonize, ordinate

(1) **coordinate** a special project, (2) a **coordinate** clause We want to **coordinate** a schedule for the investigation.

#### nervous

adj. worried and anxious about something; relating to the nerves

*synonym*: neural, anxious, uneasy

(1) development of the **nervous** system, (2) get **nervous** He suffers from **nervous** breakdowns.

#### orchestra

a large group of musicians who play classical music n. together, usually with instruments such as strings, woodwinds, brass, and percussion

synonym: ensemble, symphony, band

(1) full **orchestra**, (2) **orchestra** conductor The accomplished **orchestra** will give two more performances this week.

#### conductor

someone who leads the performance of musicians or a n. piece of music; (in physics) an object, substance, or material that readily allows the flow of electricity, heat, etc.

synonym: director, manager

- (1) conductor directing a symphony, (2) oxide conductor Diamonds are employed as thermal **conductors** as well.
- a thin stick or rod used as a conductor's wand, a symbol of authority, or a tool for specific sports or activities; a short, straight, light stick that is passed from runner to runner in a relay race

synonym: staff, stick, wand

(1) conducting **baton**, (2) twirl the **baton** The police officer used his **baton** to disperse the crowd.

# synchronize

- to happen or cause to happen at the same time or rate synonym: coordinate, accompany, harmonize
- (1) **synchronize** movements, (2) **synchronize** our watches The ball speed will increase when the lower body movements are perfectly **synchronized**.

#### gamma

the third letter of the Greek alphabet; a type of radiation n. having the shortest wavelength and highest energy of electromagnetic waves

### baton

synonym: ray, radiation, emission

(1) gamma radiation, (2) gamma particles

**Gamma** rays are a type of high-energy radiation that can be harmful to living organisms.

### process

n. a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products

*synonym*: procedure, method, system

(1) **process** improvement, (2) decision-making **process**The **process** for applying for a visa can be lengthy and complicated.

### contribute

- v. to give something, especially money or goods, to provide or achieve something together with other people synonym: donate, devote, commit
- (1) **contribute** a large sum of money to the fund,
- (2) **contribute** to society

Government workers cannot **contribute** to political campaigns.

#### disease

 a disorder or illness that affects the body or mind, often characterized by specific symptoms or abnormal functioning of organs or systems

synonym: illness, ailment, affliction

(1) disease prevention, (2) disease controlThe doctor diagnosed him with a rare disease that had no

known cure.

### **laboratory**

 a workplace for doing scientific research or teaching science; a lab

*synonym*: lab, workshop, testing room

(1) **laboratory** accident, (2) anthropology **laboratory**Animal protection groups call for an end to animal testing in a **laboratory**.

#### hertz

 n. the unit of frequency, equal to one cycle per second, often used to describe the frequency of electromagnetic waves or electronic signals

synonym: frequency, cycles per second

(1) audio hertz, (2) tera-hertz radiation

The human ear can detect sounds with frequencies ranging from 20 to 20,000 **hertz**.

#### boost

- v. to improve, raise, or increase somethingsynonym: raise, advance, promote
- (1) **boost** the economy, (2) **boost** flexibility

  The new service helped **boost** net income by 10%.

### progression

 the act or process of changing to the next stage or phase or moving forward

synonym: advancement, development, evolution

(1) **progression** of civilization, (2) **progression** of disease The company has made great strides in its **progression** toward sustainability.

develop

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.

#### association

 a people or groups of people who have joined in a single organization together for a particular purpose; a social or business connection or relationship

synonym: affiliation, collaboration, society

(1) word **associations**, (2) a scholarship **association** His membership in the **association** provided him with numerous benefits.

#### estimate

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

synonym: calculate, gauge, evaluate

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

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

#### decline

v. to become gradually smaller, fewer, worse, etc.; to refuse to accept

*synonym*: descend, drop, deny

(1) **decline** a job offer, (2) **decline** in quality

As people age, their digestive capacity also gradually **declines**.

### dementia

a severe decline in cognitive function, especially memory, as a result of disease or injury

synonym: cognitive decline, memory loss, Alzheimer's disease

(1) dementia patients, (2) probably have dementia

The study found that regular exercise can help to prevent the onset of **dementia** in older age.

### unpaid

adj. not yet paid; without payment

synonym: overdue, delinquent, outstanding

(1) unpaid account, (2) unpaid leave

Some employees claim they were simply **unpaid**.

# colleague

 one of a group of a coworker, especially in a profession or a business

synonym: coworker, associate, fellow

(1) collaborate with colleagues,(2) former colleagueI decided to seek counseling on the advice of my colleague.

#### entrain

v. to synchronize, or bring into a line, with a particular process or rhythm; to board a train or other means of transportation

synonym: board, embark, load

(1) **entrain** at the station, (2) **entrain** the heart rate

The rhythm of the music made me want to **entrain** my movements with the beats.

#### stimulate

v. to encourage something to develop or become more active; to stir the feelings or emotions

synonym: excite, provoke, arouse

(1) **stimulate** the economy, (2) **stimulate** the nervous system

The book **stimulated** my imagination.

#### blink

v. to shut and open the eyes quickly; to gleam or glow in a regular or intermittent way

synonym: twinkle, flash, flicker

(1) **blink** his eyes, (2) **blink** in astonishment

He **blinked** in the dazzling sunlight.

### flickering

adj. shining or flashing in an unsteady or irregular way;
 fluctuating or wavering, often with regards to light or flame

synonym: shining, flashing, twinkling

(1) flickering flames, (2) flickering hope

The **flickering** candlelight added a cozy ambiance to the room.

#### demonstrate

v. to display something or give an exhibition to an interested audience

*synonym*: show, illustrate, display

(1) **demonstrate** a difference, (2) **demonstrate** mastery How can you **demonstrate** that the earth is a sphere?

buzz

v. to make a continuous, low humming sound such as the one bee makes; an exciting and active atmosphere

synonym: hum, murmur, whisper

the buzz of a cicada, (2) buzz marketing
 heard the buzz of conversation from the next room.

### discotheque

 a nightclub or restaurant where recorded music is played, and people dance

synonym: nightclub, dance club, disco

(1) discotheque party, (2) discotheque scene

He couldn't wait to hit the **discotheque** and dance the night away.

### prefrontal

adj. in or about the foremost part of the frontal lobe of the brain

(1) prefrontal bone, (2) prefrontal region

Research shows that damage to the **prefrontal** cortex leads to increased aggression.

#### cortex

- n. the outermost layer of an organ, especially the brain
- (1) cortex cells, (2) visual cortex neuron

The cerebral **cortex** consists of six layers.

### hippocampus

- a major component of the brain of humans and other vertebrates that is part of the limbic system and is vital for memory
- (1) involvement of the **hippocampus**, (2) neurons in the **hippocampus**

The **hippocampus** is crucial for learning and memory storage.

#### stimulation

 the act of arousing interest or activity in something; the action of providing a stimulus

*synonym*: activation, arousal, excitation

(1) **stimulation** of the economy, (2) **stimulation** of the senses

The **stimulation** of certain chemicals activates the brain's reward system.

# flashy

 adj. attractive or impressive by being bright, expensive, large, etc.; (used especially of clothes) marked by conspicuous display

synonym: gaudy, ostentatious, dazzling

(1) flashy cars, (2) flashy graphics

I want to buy a reliable car rather than a **flashy** one.

### literally

adv. in the real or original meaning of a word or phrase; in a literal sense or way; not figuratively

synonym: actually, truly, verily

(1) translate **literally**, (2) bite his tongue **literally** 

He **literally** jumped out of his chair when he heard the news.

#### amaze

- v. to fill with wonder, surprise, or admiration
- synonym: astound, surprise, stagger
- (1) **amaze** and entertain visitors, (2) **amaze** everyone

The magician's tricks amazed the audience.

# profound

- adj. extremely great; sensed or experienced very strongly;displaying a high level of knowledge or comprehensionsynonym: 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.

### widespread

adj. existing or happening in various places or among many people

synonym: across-the-board, overall, general

(1) widespread use, (2) widespread fear of nuclear war In medieval times, death punishment was widespread and socially accepted.

### engineer

 a person whose job is designing, building, or maintaining something such as machines, structures, or software

synonym: architect, creator, builder

(1) a civil engineer, (2) engineer shortage

The **engineer** will repair my telephone tomorrow morning.

### exposed

- adj. having no protection or shield from something, such as bad weather, attack, or criticism
- synonym: endangered, revealed, disclosed

(1) **exposed** to radiation, (2) an **exposed** rock

Tech companies often employ **exposed** ducts and other materials in their office interiors.

#### reduction

- n. a decrease in size, amount, or degreesynonym: diminution, decrease, cutback
- (1) **reduction** strategy, (2) a gradual **reduction**The **reduction** in carbon emissions has been significant since the implementation of the new policy.

### protein

- a molecule made up of a long chain of amino acids,
   which is essential for the structure and function of the body's tissues
- (1) stress **protein**, (2) **protein** synthesis

  The body needs a certain amount of **protein** to build and repair tissues.

### buildup

- n. the accumulation or increase of something over time synonym: accumulation, increase, growth
- (1) lactic acid **buildup**, (2) huge military **buildup**The **buildup** of stress over time can lead to health problems.

# amyloid

- a type of protein that can accumulate abnormally in various tissues and organs in the body and is linked to various diseases, including Alzheimer's disease
   synonym: protein deposit, plaque buildup
- (1) **amyloid** beta, (2) **amyloid** accumulation Alzheimer's disease is characterized by the buildup of **amyloid** plaques in the brain.

# plaque

n. a flat, often rectangular, piece of metal, wood, or other material, inscribed or carved with commemorative text or designs and used as a decoration or award; a soft, sticky film of bacteria that coats teeth and can cause tooth decay

synonym: tablet, plate, medal

(1) arterial **plaque**, (2) commemorative **plaque** 

The dentist removed the **plaque** from my teeth during my cleaning appointment.

tau

- n. the 19th letter of the Greek alphabet, transliterated as "t"; (of physics, tau particle) a fundamental particle known as the tau lepton that is an elementary particle with a negative electric charge and a spin of 1/2
- (1) tau particle, (2) the symbol of tau

The **tau** protein has been found to play a role in the development of Alzheimer's disease and other neurological disorders.

### tangle

- n. a confused mass of something twisted togethersynonym: knot, snarl, entanglement
- (1) in a tangle, (2) tangle wires

The cords behind my computer were a **tangled** mess.

### hallmark

n. a distinctive characteristic or attribute of a person or thing

synonym: symbol, authentication, indication

(1) the **hallmark** of a good scientist, (2) the **hallmark** of modern life

A clear and simple expression is the **hallmark** of good writing.

### preserve

 to keep or maintain a particular quality, feature, etc., especially to prevent it from decaying, being damaged, or being destroyed

synonym: conserve, care for, maintain

(1) **preserve** my strength, (2) **preserve** a country's heritage They worked hard to **preserve** the nature of their native lands.

### synapse

- the fact or state of failing to finish an activity and of stopping using, making, or doing it
- (1) synapse circuit, (2) end at a synapse

Animals transmit nerve impulses through **synapses**.

### bind

v. to tie or fasten someone or something tightly with rope, string, etc. so that they cannot move or are held together strongly

synonym: tie, stick to, adhere

- (1) **bind** the man's hands, (2) **bind** old letters into a bundle The company's rules **bind** the employee's working hours.
- n. (in electrical engineering) an electrical device that provides a path for electrical current to flow; a journey or route around a particular place or area

synonym: route, course, rotation

circuit breaker, (2) federal circuit courts
 An intelligent battery has a voltage monitoring circuit.

#### survive

circuit

- v. to live or exist despite a dangerous event or period synonym: endure, persist, stay
- (1) **survive** a blizzard, (2) **survive** a plane crash These birds can only **survive** in temperate climates.

# decay

 the process or state of rotting or decomposition by natural causes such as the action of bacteria and fungi; (verb) to rot or decompose through natural causes

synonym: corrosion, decomposition, deterioration

radioactive decay, (2) prevent tooth decay
 The dead body was in an advanced state of decay.

# naturally

adv. as might be expected; by natural manners synonym: by nature, inherently, intrinsically

(1) **naturally** arising, (2) **naturally** regenerated forest He was **naturally** gifted.

#### ventricle

 a chamber or cavity within an organ or structure, particularly the lower chamber of the heart that pumps blood to the lungs and other parts of the body

synonym: chamber, pumping heart muscle

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(1) left **ventricle**, (2) **ventricle** in the brain

The heart's **ventricles** are responsible for pumping blood out to the body.

#### untreated

adj. not given medical care or treatment; not subjected to chemical or physical treatment

synonym: raw, unprocessed, coarse

(1) an **untreated** disease, (2) dispose of **untreated** formalin solution

Heat stroke is the result of **untreated** heat exhaustion.

### consistent

adj. always behaving or happening in the same way, or having the same thoughts, standards, etc.

synonym: coherent, constant, compatible

(1) do on a **consistent** basis, (2) get **consistent** results You are not **consistent** in your behavior.

#### observation

 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**.

#### immune

adj. protected against a particular disease or toxin due to the presence of specific antibodies or sensitized white blood cells

synonym: resistant, unsusceptible, unaffected

(1) **immune** from criminal prosecution, (2) the cell of the **immune** system

The vaccination does not necessarily make you completely **immune**.

### microglia

 a type of cell in the central nervous system that acts as part of the immune system, defending against invading pathogens and supporting healthy brain function

synonym: brain cell, neuron, glial cell

(1) microglia cells, (2) microglia activation

Alzheimer's disease is associated with abnormal activation of **microglia**, contributing to brain inflammation and neuronal damage.

### suppose

- v. to think that something is likely to be actual or possible synonym: guess, assume, presume
- (1) **suppose** you're right, (2) **suppose** beforehand What do you **suppose** the culprit's motive was?

#### maintain

 to continue to uphold or sustain; to keep in a particular state or condition; to assert or declare something to be true

synonym: preserve, uphold, sustain

(1) **maintain** order, (2) **maintain** good health I need to **maintain** my car regularly to prevent any major mechanical issues.

#### vessel

- n. a ship or large boatsynonym: boat, ship, craft
- (1) blood vessels,(2) naval vesselsThe vessel arrived in port the following day.

#### widen

to become or make something broader, wider, more extensive

synonym: broaden, enlarge, extend

(1) **widen** in excitement, (2) **widen** a narrowed heart valve He **widened** his investigation into a medical clinic.

### diameter

n. the length of a straight line passing through the center of a circle and connecting two points on the circumference

synonym: diam, width

(1) **diameter** of an oval, (2) a particle **diameter** Draw a circle five centimeters in **diameter**.

#### instance

n. a particular example or single occurrence of somethingsynonym: example, sample, illustration

### (1) for **instance**, (2) notable **instance**

These articles cite five **instances** of climate change.

### improvisation

 the act of making something up on the spot or creating or performing something without preparation

synonym: spontaneity, ad-lib, extemporization

(1) **improvisation** on stage, (2) jazz **improvisation** He created a beautiful piece of music using only **improvisation**.

#### circulation

n. the movement of blood through the body or of a fluid through a system; the number of copies of a newspaper or magazine that are sold

synonym: flow, movement, dissemination

lymphatic circulation, (2) circulation of money
 The circulation of the magazine has been steadily declining.

#### flush

v. to become red on your face, especially because you are embarrassed, angry, or hot; to rinse, clean, or empty something, especially a toilet, by causing large quantities of water to flow

synonym: redden, burn, suffuse

(1) the blood **flush** into my face, (2) **flush** the toilet The girl **flushed** when a young man whistled as she walked by.

### delivery

n. the act of taking or sending something to a destination; the bringing of a baby during childbirth

synonym: sending, transporting, bringing

(1) an easy delivery, (2) special delivery

The **delivery** truck arrived with the packages.

#### device

 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.

#### volunteer

 a person who performs or offers to perform a job or service without being paid for or forced to do

synonym: unpaid worker, draftee, enlistee

(1) seek volunteers, (2) my volunteer work

The teachers make full use of **volunteer** assistance.

### poster

 a large sheet or picture that is placed either on a public space to promote or announce something or on a wall to decorate it

synonym: banner, billboard, sign

(1) eye-catching **posters**, (2) a wanted **poster** We noticed a **poster** advertising a bargain.

### 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.

#### sensory

adj. of or relating to the physical senses synonym: receptive, sensuous, neural

(1) a **sensory** organ, (2) a child with **sensory** issues Sharks have highly developed **sensory** systems and are extremely sensitive creatures.

#### tablet

 a small flat electronic device used for browsing the internet, reading, writing, or playing games; a small, solid pill of medicine

synonym: notepad, pill, medication

(1) a multivitamin **tablet**, (2) **tablet** keyboard

The new **tablet** device has a faster processor and better graphics than its predecessor.

### emerge

v. to move out of or away from something and become visible

*synonym*: arise, occur, appear

(1) **emerge** as a butterfly, (2) **emerge** from poverty During colonial eras, new migratory patterns **emerged**.

pilot

a person who flies an aircraft, especially as a job; a
person qualified to guide ships through a difficult area of
water

synonym: aviator, flyer, chief

(1) a test pilot, (2) pilot productionThe pilot exercised great care in landing.

### clinical

- adj. of or relating to the examination and treatment of patients rather than theoretical or laboratory studiessynonym: dispassionate, analytic, scientific
- (1) **clinical** surgery, (2) participate in **clinical** trials She received special **clinical** training at the hospital.

### technological

- adj. based on scientific and industrial progress synonym: specialized, technical
- (1) **technological** advancement, (2) **technological** policy **Technological** advances have disrupted many industries.

# encouraging

- adj. giving hope, confidence, or support; inspiring synonym: uplifting, inspiring, optimistic
- (1) **encouraging** approval, (2) **encouraging** sign The test results were **encouraging** and showed improvement.

### preservation

- n. the act of keeping something in its original state or of preventing it from being damagedsynonym: conserving, protection, conservancy
- (1) wildlife **preservation**, (2) the **preservation** of food The museum had kept the paintings in remarkable **preservation**.

#### volume

 the amount of space occupied by an object or substance; the magnitude of sound

synonym: capacity, amount, intensity

(1) volume of work, (2) high volume

This container has a **volume** of 10 cubic meters.

### cognitive

adj. of or relating to mental processes of understanding synonym: perceivable, mind, mental

(1) improve **cognitive** function, (2) research on **cognitive** psychology

His **cognitive** faculties were getting worse because of a lack of sleep.

### improve

- v. to make or become better
- synonym: enhance, ameliorate, enrich
- (1) **improve** a process, (2) **improve** the test score We want to **improve** ties between our two countries.

#### cofounder

- one of several people who establishes an organization or starts a business
- (1) cofounder of the university, (2) late cofounderHe is the cofounder and chairman of this tech company.

# atrophy

- a decrease in size of a muscle, organ, etc., caused by disease or disuse
- synonym: disintegration, degeneration, wasting away
- (1) weakness with **atrophy**, (2) **atrophy** of the muscles Daily exercise and adequate sleep are necessary to prevent the progression of **atrophy**.

#### **function**

n. the purpose or use of an object, system, or process; a particular activity or operation that is designed to serve a specific purpose; a mathematical concept that describes a relationship between two sets of values, called the input and output sets; (verb) to operate or work in a specific way, or to perform a particular task or purpose

synonym: purpose, mapping, job

### (1) function properly, (2) immune function

The brain is an incredibly complex organ that controls the body's **function**.

#### determinant

 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.

### participate

v. to take part in something

synonym: take part, partake, enter

(1) **participate** fully in conversation, (2) **participate** in the program

The majority of students actively **participated** in the college's intramural sports program.

### tolerate

v. to allow something to exist or happen, even if it is disliked or opposed

synonym: endure, put up with, bear

(1) **tolerate** his disrespectful behavior, (2) **tolerate** ambiguity

I can't tolerate spicy food, and it always gives me heartburn

#### invasive

 adj. spreading very quickly, and often aggressively, and difficult to stop

synonym: aggressive, rampant, spreading

(1) invasive breast cancer, (2) invasive species

The **invasive** disease can spread quickly and potentially cause a global pandemic.

#### minimal

adj. tiny in amount; the least possible synonym: tiniest, essential, minimum

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# minimal effort, (2) minimal amount The process was carried out at minimal cost.

The process was carried out at minimal cost

### launch

v. to send or propel something into the air or space using a device such as a rocket, missile, or spacecraft; to make something available or on sale for the first time

synonym: start, initiate, begin

(1) **launch** a spaceship into orbit, (2) **launch** a big attack The company is set to **launch** its new product line next month.

# delay

v. to cause something to happen at a later time than originally intended or expected

synonym: block, adjourn, detain

(1) **delay** a flight three hours, (2) **delay** the new project We **delayed** the payment because of an incorrect invoice.

### incidence

n. the frequency or rate at which a particular event or condition occurs within a specific population, group, or area; the occurrence or manifestation of something, especially something harmful or unpleasant

*synonym*: occurrence, frequency, prevalence

(1) **incidence** rate, (2) high **incidence** of disease

The **incidence** of crime has decreased in the neighborhood since the new security measures were put in place.

# prevalence

n. the state or condition of being widespread or common; the extent or frequency of occurrence of a disease or condition in a given population at a specific time

*synonym*: preponderance, currency, frequency

(1) **prevalence** rate, (2) high **prevalence** of a diabetes
The **prevalence** of allergies has increased in recent years.

integrate

v. to combine one thing with another so that they form a whole or work together; to accept equal participation for members of all races and ethnic groups

synonym: mix, merge, combine

(1) **integrate** into the existing system, (2) **integrate** both businesses

He found that it is difficult to **integrate** socially.

#### environment

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

synonym: atmosphere, surroundings, climate

(1) **environment** affairs, (2) chaotic **environment**Every human is responsible for taking care of the Earth's **environment**.

#### entertainment

 public shows, films, television, or other performances or activities of enjoying people

synonym: amusement, recreation, enjoyment

(1) an elegant **entertainment**, (2) hour of **entertainment** The hotel is famous for its **entertainment**, including the casino.

### implication

 something that is inferred or indirectly stated; the act or fact of being involved in something

synonym: suggestion, association, conclusion

(1) the **implication** in a crime, (2) the **implication** of a word His poem has a very significant **implication**.

#### causal

adj. relating to or indicating a cause or the relationship between causes and effects; resulting from a causesynonym: causative, contributory, connected

(1) causal chain, (2) causal effect

The study aimed to establish a **causal** relationship between smoking and lung cancer.

falloff

n. a decline or decrease in something, such as quantity or quality; a decrease in the intensity, brightness, or volume of something; (verb) to decrease in quantity, quality, or intensity; to slip or slide from a surface or support

*synonym*: decline, drop, decrease

(1) falloff in demand, (2) productivity falloff

The **falloff** in sales was attributed to the new competitor in the market.

#### obvious

adj. easy to see, discover or understand synonym: apparent, conspicuous, evident

(1) **obvious** reasons, (2) his conclusion was **obvious** 

There are **obvious** differences between the two wine-producing regions.

### complexity

 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.

### genetic

adj. of or relating to genes (= parts of the DNA in cells) or the science of genes

synonym: hereditary, genetical, inborn

(1) have **genetic** testing, (2) a **genetic** disorder

Understanding protein folding is a vital step in deciphering the **genetic** code.

### compromise

v. to settle a problem or disagreement by mutual concession

synonym: agree, settle, negotiate

(1) **compromise** the matter, (2) cannot **compromise** anymore

They never **compromised** on development despite the lack of funds.

#### allude

- v. to suggest or make reference to something indirectly synonym: imply, indicate, hint
- (1) **allude** to his low origin, (2) **allude** to the planning He **alluded** to the problem but did not mention it directly.

### impair

- v. to damage something or make it weaker or worse synonym: degrade, mar, deface
- (1) **impair** my health, (2) **impair** insulin sensitivity The accident made his vision **impaired**.

### aggregate

 a collection or sum of different things often used to describe a total or combination of items

synonym: total, sum, whole

(1) data **aggregate**, (2) an **aggregate** of people The **aggregate** amount of money raised for the charity was over a million dollars.

### pathology

n. the study of the nature and cause of diseases and disorders; the medical specialty that deals with the diagnosis and treatment of diseases and disorders

synonym: medical science, pathophysiology

(1) benign **pathology**, (2) clinical **pathology**The **pathology** report showed no signs of cancer, giving her family a sense of relief.

### mention

- v. to speak or write about something or someone briefly synonym: reference, allude, cite
- (1) **mention** name, (2) **mention** in a report I **mentioned** to him that I had seen his sister at the grocery store earlier that day.

### strength

 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.

# pathophysiology

n. the study of the changes in normal bodily functions that occur as a result of disease or injury; the study of the functional changes that occur in an organism as a result of disease, injury, or abnormality

synonym: medical pathology, disease mechanism, physiological

#### disorder

(1) explore the pathophysiology, (2) pathophysiology of heart disease

The study of **pathophysiology** examines the physiological processes that lead to disease.

### eventually

adv. finally, particularly after a long time or a lot of struggle, complications, and so on

*synonym*: finally, someday, ultimately

(1) eventually become obsolete, (2) eventually succeed The corporation **eventually** dominated the entire tobacco business.

### opportune

adj. suitable or happening at a time that is suitable or convenient for a particular purpose

synonym: suitable, timely, practical

(1) **opportune** occasion, (2) an **opportune** remark The phone rang at the most **opportune** time.

### heal

- to make a wound or injury to become well again
- synonym: recover, bring around, mend
- (1) **heal** a broken bone, (2) **heal** the hurt mind It will take time for her mental scars to heal.

# necessarily

adv. in an essential manner; in such a way as could not be otherwise

synonym: inevitable, certainly, automatically

- (1) not **necessarily** a problem, (2) **necessarily** true This accident was something that happened **necessarily**.
- to express differing opinions or points of view, often in a argue heated or contentious manner; to present a case or

*synonym*: debate, dispute, quarrel

(1) **argue** a case, (2) **argue** passionately

reasoning to persuade or convince others

The couple began to **argue** over which restaurant to go to for

dinner.

#### ray

- n. a narrow line of light, heat, or another form of energysynonym: beam, light, glimmer
- opaque to X- rays,
   effect of cosmic rays
   Gamma rays penetrate body tissues and cause cell damage.

### therapy

 the act of caring for someone through medication, remedial training, etc.

*synonym*: antidote, medicine, treatment

(1) therapy for a patient, (2) field of gene therapyI underwent aversion therapy for my addiction to alcohol.

### combination

a collection of things that have been combined; an assemblage of separate parts or qualities

synonym: blend, hybrid, compounding

(1) genic **combinations**, (2) **combination** number The **combination** to the safe was a secret.

# absolutely

adv. without restriction or limitation; completely or utterlysynonym: completely, utterly, definitely

(1) **absolutely** against, (2) **absolutely** obsessed with the girl

I am **absolutely** opposed to his idea because of morality.

#### critic

 someone who expresses opinions about the quality of books, music, etc.

synonym: pundit, analyst, attacker

(1) art critic, (2) severe critic

Advocates for legal reform hear less harsh words from their **critics**.

#### treatment

 the way in which someone deals with or behaves towards someone or something; medical care provided to a patient for an injury or illness.

*synonym*: remedy, antidote, medicine

first-aid treatment, (2) treatment by diet
 The primary purpose of the treatment is pain relief.

onset

- n. the beginning or early stages of unpleasant something;
   a military attack
- synonym: beginning, attack, commencement
- (1) at the first **onset**, (2) the **onset** of spring

  This medicine works best when taken at the **onset** of a cold.

# **Session 2: Spelling**

1.	parte in the program	<i>v</i> .	to take part in something
2.	h_l a broken bone	ν.	to make a wound or injury to become well again
3.	treus amount	adj.	very great in degree or extent or amount or impact; extremely good
4.	tat keyboard	n.	a small flat electronic device used for browsing the internet, reading, writing, or playing games; a small, solid pill of medicine
5.	chaotic envnt	n.	the natural world such as air, water, and land in which humans, animals, and plants live
6.	sye circuit	n.	the fact or state of failing to finish an activity and of stopping using, making, or doing it
7.	comty theory	n.	the state or quality of being complicated or intricate and difficult to understand
8.	a particle dier	n.	the length of a straight line passing through the center of a circle and connecting two points on the circumference
9.	teccal advancement	adj.	based on scientific and industrial progress
10.	a theoretical concept in	n.	the scientific study of the function, structure, and disorder of the brain and

ANSWERS: 1. participate, 2. heal, 3. tremendous, 4. tablet, 5. environment, 6. synapse, 7. complexity, 8. diameter, 9. technological, 10. neuroscience

the nervous system

11. voe of work	n.	the amount of space occupied by an object or substance; the magnitude of sound	
12. visual cox neuron	n.	the outermost layer of an organ, especially the brain	
13. patogy of heart disease	n.	the study of the changes in normal bodily functions that occur as a result of disease or injury; the study of the functional changes that occur in an organism as a result of disease, injury, or abnormality	
14. translate lily	adv.	in the real or original meaning of a word or phrase; in a literal sense or way; not figuratively	
15. weakness with aty	n.	a decrease in size of a muscle, organ, etc., caused by disease or disuse	
16. bd old letters into a bundle	ν.	to tie or fasten someone or something tightly with rope, string, etc. so that they cannot move or are held together strongly	
17. fuon properly	n.	the purpose or use of an object, system, or process; a particular activity or operation that is designed to serve a specific purpose; a mathematical concept that describes a relationship between two sets of values, called the input and output sets; (verb) to operate or work in a specific way, or to perform a particular task or purpose	
18. sue you're right	<i>v</i> .	to think that something is likely to be actual or possible	
ANSWERS: 11. volume, 12. cortex, 13. pathophysiology, 14. literally, 15. atrophy, 16. bind, 17. function, 18. suppose			

19.	necly true	adv.	in an essential manner; in such a way as could not be otherwise
20.	class obson day	n.	the act or activity of carefully examining or monitoring something or someone
21.	disue scene	n.	a nightclub or restaurant where recorded music is played, and people dance
22.	tracking dee	n.	a piece of equipment, tool, or technology that serves a particular purpose or function, often mechanical or electronic
23.	the impon in a crime	n.	something that is inferred or indirectly stated; the act or fact of being involved in something
24.	deia patients	n.	a severe decline in cognitive function, especially memory, as a result of disease or injury
25.	absly obsessed with the girl	adv.	without restriction or limitation; completely or utterly
26.	hour of entent	n.	public shows, films, television, or other performances or activities of enjoying people
27.	tae wires	n.	a confused mass of something twisted together
28.	gete more electricity	ν.	to produce or create something; to make offspring by reproduction
29.	win a narrowed heart valve	ν.	to become or make something broader, wider, more extensive
30.	federal cit courts	n.	(in electrical engineering) an electrical device that provides a path for electrical current to flow; a journey or route around a particular place or area

ANSWERS: 19. necessarily, 20. observation, 21. discotheque, 22. device, 23. implication, 24. dementia, 25. absolutely, 26. entertainment, 27. tangle, 28. generate, 29. widen, 30. circuit

31. at the first on t 32. or\_\_\_\_ra conductor 33. pre\_\_\_\_ce rate 34. pre\_\_\_\_al bone 35. the ha rk of modern life 36. en\_\_\_n the heart rate 37. am e everyone 38. arterial pl e 39. su e a blizzard

40. the symbol of t u

- n. the beginning or early stages of unpleasant something; a military attack
- a large group of musicians who play classical music together, usually with instruments such as strings, woodwinds, brass, and percussion
- n. the state or condition of being widespread or common; the extent or frequency of occurrence of a disease or condition in a given population at a specific time
- adj. in or about the foremost part of the frontal lobe of the brain
- a distinctive characteristic or attribute of a person or thing
- v. to synchronize, or bring into a line, with a particular process or rhythm; to board a train or other means of transportation
- v. to fill with wonder, surprise, or admiration
- n. a flat, often rectangular, piece of metal, wood, or other material, inscribed or carved with commemorative text or designs and used as a decoration or award; a soft, sticky film of bacteria that coats teeth and can cause tooth decay
- v. to live or exist despite a dangerous event or period
- n. the 19th letter of the Greek alphabet, transliterated as "t"; (of physics, tau particle) a fundamental particle known as the tau lepton that is an elementary particle with a negative electric charge and a spin of 1/2

ANSWERS: 31. onset, 32. orchestra, 33. prevalence, 34. prefrontal, 35. hallmark, 36. entrain, 37. amaze, 38. plaque, 39. survive, 40. tau

41. lymphatic ciron	n.	the movement of blood through the body or of a fluid through a system; the number of copies of a newspaper or magazine that are sold
42. a coote clause	<i>v</i> .	to bring the different parts of the activity and the people into an organized, ordered, or efficient relationship; (adjective) of equal importance, rank, or degree
43. do on a connt basis	adj.	always behaving or happening in the same way, or having the same thoughts, standards, etc.
44. twirl the ban	n.	a thin stick or rod used as a conductor's wand, a symbol of authority, or a tool for specific sports or activities; a short, straight, light stick that is passed from runner to runner in a relay race
45. dier of an oval	n.	the length of a straight line passing through the center of a circle and connecting two points on the circumference
46. bite his tongue lily	adv.	in the real or original meaning of a word or phrase; in a literal sense or way; not figuratively
47. audio hez	n.	the unit of frequency, equal to one cycle per second, often used to describe the frequency of electromagnetic waves or electronic signals
48. stress prn	n.	a molecule made up of a long chain of amino acids, which is essential for the structure and function of the body's tissues

ANSWERS: 41. circulation, 42. coordinate, 43. consistent, 44. baton, 45. diameter, 46. literally, 47. hertz, 48. protein

49.	environmental detnt	n.	a factor, circumstance, or condition that contributes to the shaping, influencing, or determining of a particular outcome or result	
50.	high voe	n.	the amount of space occupied by an object or substance; the magnitude of sound	
51.	a gec disorder	adj.	of or relating to genes (= parts of the DNA in cells) or the science of genes	
52.	effect of cosmic r_ys	n.	a narrow line of light, heat, or another form of energy	
53.	naly arising	adv.	as might be expected; by natural manners	
54.	die prevention	n.	a disorder or illness that affects the body or mind, often characterized by specific symptoms or abnormal functioning of organs or systems	
55.	fly graphics	adj.	attractive or impressive by being bright, expensive, large, etc.; (used especially of clothes) marked by conspicuous display	
56.	his conclusion was obs	adj.	easy to see, discover or understand	
57.	amd accumulation	n.	a type of protein that can accumulate abnormally in various tissues and organs in the body and is linked to various diseases, including Alzheimer's disease	
58.	a gradual reon	n.	a decrease in size, amount, or degree	
ANSWERS: 49 determinant 50 volume 51 genetic 52 ray 53 naturally 54				

disease, 55. flashy, 56. obvious, 57. amyloid, 58. reduction

59.	prs improvement	n.	a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products
60.	vele in the brain	n.	a chamber or cavity within an organ or structure, particularly the lower chamber of the heart that pumps blood to the lungs and other parts of the body
61.	obs reasons	adj.	easy to see, discover or understand
62.	sue a plane crash	<i>v</i> .	to live or exist despite a dangerous event or period
63.	permanent brn damage	n.	the organ inside the head that is responsible for one's movement, thought, memory, and feeling
64.	aty of the muscles	n.	a decrease in size of a muscle, organ, etc., caused by disease or disuse
65.	este a fair value	<i>v</i> .	to guess or calculate the cost, size, value, etc. of something
66.	miI effort	adj.	tiny in amount; the least possible
67.	obson instrument	n.	the act or activity of carefully examining or monitoring something or someone
68.	ime a process	v.	to make or become better
69.	the hark of a good scientist	n.	a distinctive characteristic or attribute of a person or thing

ANSWERS: 59. process, 60. ventricle, 61. obvious, 62. survive, 63. brain, 64. atrophy, 65. estimate, 66. minimal, 67. observation, 68. improve, 69. hallmark

ANSWERS: 70. causal, 71. maintain, 72. incidence, 73. contribute, 74. develop, 75. neuroscience, 76. coordinate, 77. impair

77. im\_\_\_r insulin sensitivity

degree

or worse

to damage something or make it weaker

78.	enn at the station	<i>v</i> .	to synchronize, or bring into a line, with a particular process or rhythm; to board a train or other means of transportation
79.	probably have deia	n.	a severe decline in cognitive function, especially memory, as a result of disease or injury
80.	cognitive comty	n.	the state or quality of being complicated or intricate and difficult to understand
81.	faf in demand	n.	a decline or decrease in something, such as quantity or quality; a decrease in the intensity, brightness, or volume of something; (verb) to decrease in quantity, quality, or intensity; to slip or slide from a surface or support
82.	full orra	n.	a large group of musicians who play classical music together, usually with instruments such as strings, woodwinds, brass, and percussion
83.	main order	ν.	to continue to uphold or sustain; to keep in a particular state or condition; to assert or declare something to be true
84.	encng approval	adj.	giving hope, confidence, or support; inspiring
85.	an exd rock	adj.	having no protection or shield from something, such as bad weather, attack, or criticism
86.	envnt affairs	n.	the natural world such as air, water, and land in which humans, animals, and plants live

ANSWERS: 78. entrain, 79. dementia, 80. complexity, 81. falloff, 82. orchestra, 83. maintain, 84. encouraging, 85. exposed, 86. environment

87. b z marketing to make a continuous, low humming ν. sound such as the one bee makes; an exciting and active atmosphere 88. naval ve ls a ship or large boat n. 89. bo t the economy to improve, raise, or increase something  $\nu$ . 90. high in\_\_\_\_ce of disease the frequency or rate at which a n. particular event or condition occurs within a specific population, group, or area: the occurrence or manifestation of something, especially something harmful or unpleasant to produce or create something; to 91. ge te \$100 a month ν. make offspring by reproduction 92. de\_\_\_\_e a job offer to become gradually smaller, fewer, worse, etc.; to refuse to accept 93. the imp\_\_\_\_on of a word something that is inferred or indirectly n. stated; the act or fact of being involved in something adj. of or relating to the physical senses 94. a child with se y issues someone who expresses opinions 95. art cr c n. about the quality of books, music, etc. 96. syn ze our watches to happen or cause to happen at the same time or rate 97. improve co\_\_\_\_ve function adj. of or relating to mental processes of understanding 98. pre\_\_\_\_al region adj. in or about the foremost part of the

ANSWERS: 87. buzz, 88. vessel, 89. boost, 90. incidence, 91. generate, 92. decline, 93. implication, 94. sensory, 95. critic, 96. synchronize, 97. cognitive, 98. prefrontal

frontal lobe of the brain

99. benign pagy	n.	the study of the nature and cause of diseases and disorders; the medical specialty that deals with the diagnosis and treatment of diseases and disorders
100. for ince	n.	a particular example or single occurrence of something
101. disue party	n.	a nightclub or restaurant where recorded music is played, and people dance
102. miia activation	n.	a type of cell in the central nervous system that acts as part of the immune system, defending against invading pathogens and supporting healthy brain function
103. lah a big attack	ν.	to send or propel something into the air or space using a device such as a rocket, missile, or spacecraft; to make something available or on sale for the first time
104. the b_z of a cicada	v.	to make a continuous, low humming sound such as the one bee makes; an exciting and active atmosphere
105. dispose of uned formalin solution	adj.	not given medical care or treatment; not subjected to chemical or physical treatment
106. mil amount	adj.	tiny in amount; the least possible
107. demte mastery	v.	to display something or give an exhibition to an interested audience
ANSWERS: 00 nathology 100 instance	101	discothogue 102 microglia 103

ANSWERS: 99. pathology, 100. instance, 101. discotheque, 102. microglia, 103. launch, 104. buzz, 105. untreated, 106. minimal, 107. demonstrate

108. ale to the planning	v.	to suggest or make reference to something indirectly
109. ime from criminal prosecution	adj.	protected against a particular disease or toxin due to the presence of specific antibodies or sensitized white blood cells
110. stth of the economy	n.	the quality or state of being physically, or sometimes mentally, strong
111. men name	<i>v</i> .	to speak or write about something or someone briefly
112. special dery	n.	the act of taking or sending something to a destination; the bringing of a baby during childbirth
113. a wanted por	n.	a large sheet or picture that is placed either on a public space to promote or announce something or on a wall to decorate it
114. dep a strategy	ν.	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
115. a scholarship asson	n.	a people or groups of people who have joined in a single organization together for a particular purpose; a social or business connection or relationship
116. inte both businesses	v.	to combine one thing with another so that they form a whole or work together; to accept equal participation for members of all races and ethnic groups

ANSWERS: 108. allude, 109. immune, 110. strength, 111. mention, 112. delivery, 113. poster, 114. develop, 115. association, 116. integrate

117. huge military bup	n.	the accumulation or increase of something over time
118. tote ambiguity	v.	to allow something to exist or happen, even if it is disliked or opposed
119. opaque to X-r_ys	n.	a narrow line of light, heat, or another form of energy
120. fling flames	adj.	shining or flashing in an unsteady or irregular way; fluctuating or wavering, often with regards to light or flame
121. win in excitement	<i>v</i> .	to become or make something broader, wider, more extensive
122. ame and entertain visitors	<i>v</i> .	to fill with wonder, surprise, or admiration
123. frcy band	n.	an ordered array of colors into which a light beam can be split
124. prn synthesis	n.	a molecule made up of a long chain of amino acids, which is essential for the structure and function of the body's tissues
125. have gec testing	adj.	of or relating to genes (= parts of the DNA in cells) or the science of genes
126. undth the surface of the water	adv.	under or below something else
127. the ont of spring	n.	the beginning or early stages of unpleasant something; a military attack
128. opne occasion	adj.	suitable or happening at a time that is suitable or convenient for a particular purpose

ANSWERS: 117. buildup, 118. tolerate, 119. ray, 120. flickering, 121. widen, 122. amaze, 123. frequency, 124. protein, 125. genetic, 126. underneath, 127. onset, 128. opportune

129. at your own pe	n.	the speed at which someone or something moves, or the rate at which something happens or changes
130. anthropology labry	n.	a workplace for doing scientific research or teaching science; a lab
131. proon of civilization	n.	the act or process of changing to the next stage or phase or moving forward
132. notable ince	n.	a particular example or single occurrence of something
133. comon number	n.	a collection of things that have been combined; an assemblage of separate parts or qualities
134. an agte of people	n.	a collection or sum of different things often used to describe a total or combination of items
135. coor directing a symphony	n.	someone who leads the performance of musicians or a piece of music; (in physics) an object, substance, or material that readily allows the flow of electricity, heat, etc.
136. trit information	v.	to send or forward an electronic signal; to pass something from one person or thing to another
137. tera-hez radiation	n.	the unit of frequency, equal to one cycle per second, often used to describe the frequency of electromagnetic waves or electronic signals
138. ciron of money	n.	the movement of blood through the body or of a fluid through a system; the number of copies of a newspaper or magazine that are sold

ANSWERS: 129. pace, 130. laboratory, 131. progression, 132. instance, 133. combination, 134. aggregate, 135. conductor, 136. transmit, 137. hertz, 138. circulation

139. encng sign	adj.	giving hope, confidence, or support; inspiring
140. stte the economy	v.	to encourage something to develop or become more active; to stir the feelings or emotions
141. tote his disrespectful behavior	ν.	to allow something to exist or happen, even if it is disliked or opposed
142. a sey organ	adj.	of or relating to the physical senses
143. involvement of the hipus	n.	a major component of the brain of humans and other vertebrates that is part of the limbic system and is vital for memory
144. gaa radiation	n.	the third letter of the Greek alphabet; a type of radiation having the shortest wavelength and highest energy of electromagnetic waves
145. word assons	n.	a people or groups of people who have joined in a single organization together for a particular purpose; a social or business connection or relationship
146. synze movements	v.	to happen or cause to happen at the same time or rate
147. men in a report	<i>v</i> .	to speak or write about something or someone briefly
148. in a tae	n.	a confused mass of something twisted together
149. stte the nervous system	v.	to encourage something to develop or become more active; to stir the feelings or emotions

ANSWERS: 139. encouraging, 140. stimulate, 141. tolerate, 142. sensory, 143. hippocampus, 144. gamma, 145. association, 146. synchronize, 147. mention, 148. tangle, 149. stimulate

of

150. high frcy	n.	an ordered array of colors into which a light beam can be split
151. prve my strength	ν.	to keep or maintain a particular quality, feature, etc., especially to prevent it from decaying, being damaged, or being destroyed
152. ar_e a case	v.	to express differing opinions or points of view, often in a heated or contentious manner; to present a case or reasoning to persuade or convince others
153. a detnt of crop yields	n.	a factor, circumstance, or condition that contributes to the shaping, influencing, or determining of a particular outcome or result
154. get nes	adj.	worried and anxious about something; relating to the nerves
155. high prece of a diabetes	n.	the state or condition of being widespread or common; the extent or frequency of occurrence of a disease or condition in a given population at a specific time
156. basic brn function	n.	the organ inside the head that is responsible for one's movement, thought, memory, and feeling
157. hl the hurt mind	v.	to make a wound or injury to become well again
158. radioactive dey	n.	the process or state of rotting or decomposition by natural causes such as the action of bacteria and fungi; (verb) to rot or decompose through natural causes

ANSWERS: 150. frequency, 151. preserve, 152. argue, 153. determinant, 154. nervous, 155. prevalence, 156. brain, 157. heal, 158. decay

159. widad fear of nuclear war	adj.	existing or happening in various places or among many people
160. oxide coor	n.	someone who leads the performance of musicians or a piece of music; (in physics) an object, substance, or material that readily allows the flow of electricity, heat, etc.
161. exd to radiation	adj.	having no protection or shield from something, such as bad weather, attack, or criticism
162. prve a country's heritage	ν.	to keep or maintain a particular quality, feature, etc., especially to prevent it from decaying, being damaged, or being destroyed
163. este this chicken to weigh three pounds	<i>v</i> .	to guess or calculate the cost, size, value, etc. of something
164. labry accident	n.	a workplace for doing scientific research or teaching science; a lab
165. a test pit	n.	a person who flies an aircraft, especially as a job; a person qualified to guide ships through a difficult area of water
166. stion of the economy	n.	the act of arousing interest or activity in something; the action of providing a stimulus
167. the cell of the ime system	adj.	protected against a particular disease or toxin due to the presence of specific antibodies or sensitized white blood cells
168. bot flexibility	<i>v</i> .	to improve, raise, or increase something

ANSWERS: 159. widespread, 160. conductor, 161. exposed, 162. preserve, 163. estimate, 164. laboratory, 165. pilot, 166. stimulation, 167. immune, 168. boost

169. inve species	adj.	spreading very quickly, and often aggressively, and difficult to stop
170. coer of the university	n.	one of several people who establishes an organization or starts a business
171. not necly a problem	adv.	in an essential manner; in such a way as could not be otherwise
172. neurons in the hipus	n.	a major component of the brain of humans and other vertebrates that is part of the limbic system and is vital for memory
173. lactic acid bup	n.	the accumulation or increase of something over time
174. are passionately	ν.	to express differing opinions or points of view, often in a heated or contentious manner; to present a case or reasoning to persuade or convince others
175. end at a sye	n.	the fact or state of failing to finish an activity and of stopping using, making, or doing it
176. comse the matter	<i>v</i> .	to settle a problem or disagreement by mutual concession
177. cox cells	n.	the outermost layer of an organ, especially the brain
178. miia cells	n.	a type of cell in the central nervous system that acts as part of the immune system, defending against invading pathogens and supporting healthy brain function
179. the prnd depths of the sea	adj.	extremely great; sensed or experienced very strongly; displaying a high level of knowledge or comprehension

ANSWERS: 169. invasive, 170. cofounder, 171. necessarily, 172. hippocampus, 173. buildup, 174. argue, 175. synapse, 176. compromise, 177. cortex, 178. microglia, 179. profound

180. clinical pagy	n.	the study of the nature and cause of diseases and disorders; the medical specialty that deals with the diagnosis and treatment of diseases and disorders
181. left vele	n.	a chamber or cavity within an organ or structure, particularly the lower chamber of the heart that pumps blood to the lungs and other parts of the body
182. an easy dery	n.	the act of taking or sending something to a destination; the bringing of a baby during childbirth
183. ener shortage	n.	a person whose job is designing, building, or maintaining something such as machines, structures, or software
184. severe crc	n.	someone who expresses opinions about the quality of books, music, etc.
185. jazz impion	n.	the act of making something up on the spot or creating or performing something without preparation
186. muscular stth	n.	the quality or state of being physically, or sometimes mentally, strong
187. brve idea	n.	a sudden idea or inspiration; a moment of great insight or creativity
188. ale to his low origin	<i>v</i> .	to suggest or make reference to something indirectly
189. wildlife preion	n.	the act of keeping something in its original state or of preventing it from being damaged

ANSWERS: 180. pathology, 181. ventricle, 182. delivery, 183. engineer, 184. critic, 185. improvisation, 186. strength, 187. brainwave, 188. allude, 189. preservation

190. gaa particles	n.	the third letter of the Greek alphabet; a type of radiation having the shortest wavelength and highest energy of electromagnetic waves
191. undth the laughter	adv.	under or below something else
192. collaborate with coues	n.	one of a group of a coworker, especially in a profession or a business
193. evely succeed	adv.	finally, particularly after a long time or a lot of struggle, complications, and so on
194. dee in quality	ν.	to become gradually smaller, fewer, worse, etc.; to refuse to accept
195. die control	n.	a disorder or illness that affects the body or mind, often characterized by specific symptoms or abnormal functioning of organs or systems
196. proon of disease	n.	the act or process of changing to the next stage or phase or moving forward
197. explore the patogy	n.	the study of the changes in normal bodily functions that occur as a result of disease or injury; the study of the functional changes that occur in an organism as a result of disease, injury, or abnormality
198. conte to society	ν.	to give something, especially money or goods, to provide or achieve something together with other people
199. absly against	adv.	without restriction or limitation; completely or utterly
200. naly regenerated forest	adv.	as might be expected; by natural manners

ANSWERS: 190. gamma, 191. underneath, 192. colleague, 193. eventually, 194. decline, 195. disease, 196. progression, 197. pathophysiology, 198. contribute, 199. absolutely, 200. naturally

201. first-aid trnt	n.	the way in which someone deals with or behaves towards someone or something; medical care provided to a patient for an injury or illness.
202. a multivitamin tat	n.	a small flat electronic device used for browsing the internet, reading, writing, or playing games; a small, solid pill of medicine
203. clal surgery	adj.	of or relating to the examination and treatment of patients rather than theoretical or laboratory studies
204. impion on stage	n.	the act of making something up on the spot or creating or performing something without preparation
205. an uned disease	adj.	not given medical care or treatment; not subjected to chemical or physical treatment
206. seek voers	n.	a person who performs or offers to perform a job or service without being paid for or forced to do
207. my voer work	n.	a person who performs or offers to perform a job or service without being paid for or forced to do
208. blk in astonishment	ν.	to shut and open the eyes quickly; to gleam or glow in a regular or intermittent way
209. reon strategy	n.	a decrease in size, amount, or degree
210. lah a spaceship into orbit	v.	to send or propel something into the air or space using a device such as a rocket, missile, or spacecraft; to make something available or on sale for the first time

ANSWERS: 201. treatment, 202. tablet, 203. clinical, 204. improvisation, 205. untreated, 206. volunteer, 207. volunteer, 208. blink, 209. reduction, 210. launch

211. parte fully in conversation	ν.	to take part in something
212. a civil ener	n.	a person whose job is designing, building, or maintaining something such as machines, structures, or software
213. dey the new project	v.	to cause something to happen at a later time than originally intended or expected
214. und leave	adj.	not yet paid; without payment
215. prevent tooth dey	n.	the process or state of rotting or decomposition by natural causes such as the action of bacteria and fungi; (verb) to rot or decompose through natural causes
216. cannot comse anymore	<i>v</i> .	to settle a problem or disagreement by mutual concession
217. pit production	n.	a person who flies an aircraft, especially as a job; a person qualified to guide ships through a difficult area of water
218. bd the man's hands	ν.	to tie or fasten someone or something tightly with rope, string, etc. so that they cannot move or are held together strongly
219. a prnd book	adj.	extremely great; sensed or experienced very strongly; displaying a high level of knowledge or comprehension
220. decision-making prs	n.	a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other

ANSWERS: 211. participate, 212. engineer, 213. delay, 214. unpaid, 215. decay, 216. compromise, 217. pilot, 218. bind, 219. profound, 220. process

dairy products

221. an elegant entent	n.	public shows, films, television, or other performances or activities of enjoying people
222. blood vels	n.	a ship or large boat
223. flh the toilet	<i>v</i> .	to become red on your face, especially because you are embarrassed, angry, or hot; to rinse, clean, or empty something, especially a toilet, by causing large quantities of water to flow
224. get connt results	adj.	always behaving or happening in the same way, or having the same thoughts, standards, etc.
225. inve breast cancer	adj.	spreading very quickly, and often aggressively, and difficult to stop
226. electronic dee	n.	a piece of equipment, tool, or technology that serves a particular purpose or function, often mechanical or electronic
227. cit breaker	n.	(in electrical engineering) an electrical device that provides a path for electrical current to flow; a journey or route around a particular place or area
228. eme from poverty	v.	to move out of or away from something and become visible
229. demte a difference	<i>v</i> .	to display something or give an exhibition to an interested audience
230. treus popularity	adj.	very great in degree or extent or amount or impact; extremely good
231. stion of the senses	n.	the act of arousing interest or activity in something; the action of providing a stimulus

ANSWERS: 221. entertainment, 222. vessel, 223. flush, 224. consistent, 225. invasive, 226. device, 227. circuit, 228. emerge, 229. demonstrate, 230. tremendous, 231. stimulation

v.	to cause something to happen at a later time than originally intended or expected
adj.	of or relating to mental processes of understanding
n.	a large sheet or picture that is placed either on a public space to promote or announce something or on a wall to decorate it
adj.	based on scientific and industrial progress
adj.	relating to or indicating a cause or the relationship between causes and effects; resulting from a cause
adj.	worried and anxious about something; relating to the nerves
v.	to become red on your face, especially because you are embarrassed, angry, or hot; to rinse, clean, or empty something, especially a toilet, by causing large quantities of water to flow
<i>v</i> .	to make or become better
n.	the way in which someone deals with or behaves towards someone or something; medical care provided to a patient for an injury or illness.
n.	a decline or decrease in something, such as quantity or quality; a decrease in the intensity, brightness, or volume of something; (verb) to decrease in quantity, quality, or intensity; to slip or slide from a surface or support
	adj.  adj.  adj.  v.  v.

ANSWERS: 232. delay, 233. cognitive, 234. poster, 235. technological, 236. causal, 237. nervous, 238. flush, 239. improve, 240. treatment, 241. falloff

<i>v</i> .	to think that something is likely to be actual or possible
adj.	shining or flashing in an unsteady or irregular way; fluctuating or wavering, often with regards to light or flame
adj.	suitable or happening at a time that is suitable or convenient for a particular purpose
n.	a sudden idea or inspiration; a moment of great insight or creativity
adj.	not yet paid; without payment
n.	the act of caring for someone through medication, remedial training, etc.
n.	one of several people who establishes an organization or starts a business
n.	a flat, often rectangular, piece of metal, wood, or other material, inscribed or carved with commemorative text or designs and used as a decoration or award; a soft, sticky film of bacteria that coats teeth and can cause tooth decay
v.	to send or forward an electronic signal; to pass something from one person or thing to another
n.	the act of keeping something in its original state or of preventing it from being damaged
n.	a thin stick or rod used as a conductor's wand, a symbol of authority, or a tool for specific sports or activities; a short, straight, light stick that is passed from runner to runner in a relay race
	adj.  n.  n.  v.

ANSWERS: 242. suppose, 243. flickering, 244. opportune, 245. brainwave, 246. unpaid, 247. therapy, 248. cofounder, 249. plaque, 250. transmit, 251. preservation, 252. baton

253. eme as a butterfly	<i>v</i> .	to move out of or away from something and become visible
254. the runner's pe	n.	the speed at which someone or something moves, or the rate at which something happens or changes
255. evely become obsolete	adv.	finally, particularly after a long time or a lot of struggle, complications, and so or
256. imr my health	v.	to damage something or make it weake or worse
257. widad use	adj.	existing or happening in various places or among many people
258. blk his eyes	v.	to shut and open the eyes quickly; to gleam or glow in a regular or intermittent way
259. amd beta	n.	a type of protein that can accumulate abnormally in various tissues and organs in the body and is linked to various diseases, including Alzheimer's disease
260. former coue	n.	one of a group of a coworker, especially in a profession or a business
261. participate in clal trials	adj.	of or relating to the examination and treatment of patients rather than theoretical or laboratory studies
262. data agte	n.	a collection or sum of different things often used to describe a total or combination of items
263. inte into the existing system	v.	to combine one thing with another so that they form a whole or work together to accept equal participation for members of all races and ethnic groups

ANSWERS: 253. emerge, 254. pace, 255. eventually, 256. impair, 257. widespread, 258. blink, 259. amyloid, 260. colleague, 261. clinical, 262. aggregate, 263. integrate

264. t_u particle	n.	the 19th letter of the Greek alphabet, transliterated as "t"; (of physics, tau particle) a fundamental particle known as the tau lepton that is an elementary particle with a negative electric charge and a spin of 1/2
265. field of gene thy	n.	the act of caring for someone through medication, remedial training, etc.
266. fly cars	adj.	attractive or impressive by being bright, expensive, large, etc.; (used especially of clothes) marked by conspicuous display
267. immune fuon	n.	the purpose or use of an object, system, or process; a particular activity or operation that is designed to serve a specific purpose; a mathematical concept that describes a relationship between two sets of values, called the input and output sets; (verb) to operate or work in a specific way, or to perform a particular task or purpose
268. genic comons	n.	a collection of things that have been combined; an assemblage of separate parts or qualities

ANSWERS: 264. tau, 265. therapy, 266. flashy, 267. function, 268. combination

## **Session 3: Fill in the Blanks**

1.	The human ear can detect sounds with frequencies ranging from 20 to 20,000 .
n.	the unit of frequency, equal to one cycle per second, often used to describe the frequency of electromagnetic waves or electronic signals
2.	The study found that regular exercise can help to prevent the onset ofin older age.
n.	a severe decline in cognitive function, especially memory, as a result of disease or injury
3.	This accident was something that happened
ad	v. in an essential manner; in such a way as could not be otherwise
4.	What do you the culprit's motive was?
<i>v</i> .	to think that something is likely to be actual or possible
5.	His membership in the provided him with numerous benefits.
n.	a people or groups of people who have joined in a single organization together for a particular purpose; a social or business connection or relationship
6.	They worked hard to the nature of their native lands.
<i>v</i> .	to keep or maintain a particular quality, feature, etc., especially to prevent it from decaying, being damaged, or being destroyed
7.	The couple began to over which restaurant to go to for dinner.
<i>v</i> .	to express differing opinions or points of view, often in a heated or contentious manner; to present a case or reasoning to persuade or convince others
	SWERS: 1. hertz, 2. dementia, 3. necessarily, 4. suppose, 5. association, 6. serve, 7. argue

8.	The economy is growing at a supercharged
n.	the speed at which someone or something moves, or the rate at which something happens or changes
9.	The ball speed will increase when the lower body movements are perfectly .
ν.	to happen or cause to happen at the same time or rate
10.	His poem has a very significant
n.	something that is inferred or indirectly stated; the act or fact of being involved in something
11.	These articles cite five of climate change.
n.	a particular example or single occurrence of something
12.	Every human is responsible for taking care of the Earth's
n.	the natural world such as air, water, and land in which humans, animals, and plants live
13.	He was gifted.
adı	v. as might be expected; by natural manners
14.	A clear and simple expression is the of good writing.
n.	a distinctive characteristic or attribute of a person or thing
15.	I underwent aversion for my addiction to alcohol.
n.	the act of caring for someone through medication, remedial training, etc.
16.	The amount of money raised for the charity was over a million dollars.
n.	a collection or sum of different things often used to describe a total or combination of items
	SWERS: 8. pace, 9. synchronized, 10. implication, 11. instances, 12. environment, naturally, 14. hallmark, 15. therapy, 16. aggregate

17.	The test results were and showed improvement.
adj	giving hope, confidence, or support; inspiring
18.	The of certain chemicals activates the brain's reward system.
n.	the act of arousing interest or activity in something; the action of providing a stimulus
19.	The phone rang at the most time.
adj	suitable or happening at a time that is suitable or convenient for a particular purpose
20.	The in sales was attributed to the new competitor in the market.
n.	a decline or decrease in something, such as quantity or quality; a decrease in the intensity, brightness, or volume of something; (verb) to decrease in quantity, quality, or intensity; to slip or slide from a surface or support
21.	The will repair my telephone tomorrow morning.
n.	a person whose job is designing, building, or maintaining something such as machines, structures, or software
	The in carbon emissions has been significant since the implementation of the new policy.
n.	a decrease in size, amount, or degree
23.	These birds can only in temperate climates.
ν.	to live or exist despite a dangerous event or period
24.	He couldn't wait to hit the and dance the night away.
n.	a nightclub or restaurant where recorded music is played, and people dance
	SWERS: 17. encouraging, 18. stimulation, 19. opportune, 20. falloff, 21. engineer reduction, 23. survive, 24. discotheque

ANSWERS: 25. tangled, 26. frequency, 27. tolerate, 28. estimated, 29. protein, 30. plaque, 31. improvisation, 32. volume

Vocab-Builder Ref from "Li-Huei Tsai: Could we treat Alzheimer's with light and sound? | TED Talk" (134 words)

41. /	An intelligent battery has a voltage monitoring
n.	(in electrical engineering) an electrical device that provides a path for electrical current to flow; a journey or route around a particular place or area
42. <sup>-</sup>	The to the safe was a secret.
n.	a collection of things that have been combined; an assemblage of separate parts or qualities
43. <sup>-</sup>	The cerebral consists of six layers.
n.	the outermost layer of an organ, especially the brain
	Alzheimer's disease is associated with abnormal activation of contributing to brain inflammation and neuronal damage.
n.	a type of cell in the central nervous system that acts as part of the immune system, defending against invading pathogens and supporting healthy brain function
45. l	Heat stroke is the result of heat exhaustion.
adj.	not given medical care or treatment; not subjected to chemical or physical treatment
46. <sup>-</sup>	The vaccination does not necessarily make you completely
adj.	protected against a particular disease or toxin due to the presence of specific antibodies or sensitized white blood cells
47. \	We had a time yesterday.
adj.	very great in degree or extent or amount or impact; extremely good
48. <sup>-</sup>	The doctor diagnosed him with a rare that had no known cure.
n.	a disorder or illness that affects the body or mind, often characterized by specific symptoms or abnormal functioning of organs or systems
	SWERS: 41. circuit, 42. combination, 43. cortex, 44. microglia, 45. untreated, 46. une, 47. tremendous, 48. disease

Vocab-Builder Ref from "Li-Huei Tsai: Could we treat Alzheimer's with light and sound? | TED Talk" (134 words)

- 63. The \_\_\_\_\_ for applying for a visa can be lengthy and complicated.
  - a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products

ANSWERS: 57. vessel, 58. exposed, 59. entrain, 60. blinked, 61. critics, 62. incidence, 63. process

ANSWERS: 64. improve, 65. invasive, 66. demonstrate, 67. conductors, 68. complexity, 69. absolutely, 70. sensory, 71. laboratory, 72. minimal

73.	Daily exercise and adequate sleep are necessary to prevent the progression of
n.	a decrease in size of a muscle, organ, etc., caused by disease or disuse
74.	He to the problem but did not mention it directly.
<i>v</i> .	to suggest or make reference to something indirectly
75.	Government workers cannot to political campaigns.
v.	to give something, especially money or goods, to provide or achieve something together with other people
76.	The engineer had a and redesigned the product to be more efficient.
n.	a sudden idea or inspiration; a moment of great insight or creativity
77.	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
78.	Research shows that damage to the cortex leads to increased aggression.
adj	in or about the foremost part of the frontal lobe of the brain
79.	It will take time for her mental scars to
v.	to make a wound or injury to become well again
80.	Some employees claim they were simply
adj	not yet paid; without payment
81.	Gamma penetrate body tissues and cause cell damage.
n.	a narrow line of light, heat, or another form of energy
	SWERS: 73. atrophy, 74. alluded, 75. contribute, 76. brainwave, 77. device, 78. frontal, 79. heal, 80. unpaid, 81. rays

ANSWERS: 82. coordinate, 83. eventually, 84. literally, 85. flushed, 86. tablet, 87. delayed, 88. develop

ANSWERS: 89. pilot, 90. cofounder, 91. baton, 92. buzz, 93. prevalence, 94. compromised, 95. Technological, 96. causal

ANSWERS: 97. flashy, 98. diameter, 99. impaired, 100. widened, 101. emerged, 102. participated, 103. maintain, 104. obvious, 105. stimulated

106.	The protein has been found to play a role in the development of Alzheimer's disease and other neurological disorders.
n.	the 19th letter of the Greek alphabet, transliterated as "t"; (of physics, tau particle) a fundamental particle known as the tau lepton that is an elementary particle with a negative electric charge and a spin of 1/2
107.	She received special training at the hospital.
adj.	of or relating to the examination and treatment of patients rather than theoretical or laboratory studies
108.	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
109.	His faculties were getting worse because of a lack of sleep.
adj.	of or relating to mental processes of understanding
110.	The economic stimulation program would a lot of new jobs.
v.	to produce or create something; to make offspring by reproduction
111.	Parents often their characteristics to their children.
<i>v</i> .	to send or forward an electronic signal; to pass something from one person or thing to another
112.	The truck arrived with the packages.
n.	the act of taking or sending something to a destination; the bringing of a baby during childbirth
113.	You are not in your behavior.
adj.	always behaving or happening in the same way, or having the same thoughts, standards, etc.
	SWERS: 106. tau, 107. clinical, 108. brain, 109. cognitive, 110. generate, 111. smit, 112. delivery, 113. consistent

ANSWERS: 122. launch, 123. widespread, 124. volunteer, 125. neuroscience, 126. determinant, 127. onset, 128. orchestra, 129. strength

ANSWERS: 130. amazed, 131. amyloid, 132. decay, 133. Gamma, 134. treatment

the way in which someone deals with or behaves towards someone or something; medical care provided to a patient for an injury or illness.