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Vocabulary Builder Reference from...

Mary Lou Jepsen: How we can use light to see deep inside our bodies and brains | TED Talk

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

All Words

IMPORTANT

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Session 1: Word List

benign

adj. kind and gentle; not harmful or malicious

synonym: kind, gentle, harmless

(1) **benign** tumor, (2) a **benign** smile

The lump was discovered to be **benign**, and no further treatment was needed.

infrared

adj. relating to or denoting electromagnetic radiation with a wavelength just longer than that of red light but shorter than that of microwave radiation, used for sensing heat and for remote control

synonym: thermal, warm, radiant

(1) an **infrared** lamp, (2) **infrared** radiation

The **infrared** camera revealed a hidden image on the surface.

translucence

n. the quality of being translucent; the ability of a material to allow light to pass through but not clearly enough to distinguish objects on the other side

synonym: opacity, limpidity, clarity

(1) natural **translucence**, (2) **translucence** of water

The artist used the **translucence** of the glass to create a beautiful stained-glass window.

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**.

laser

n. a device that emits powerful and narrow light that can be used as a tool to cut metal through a process of optical amplification

synonym : beam, bar, ray

(1) **laser** printer, (2) pulse **laser**

The company holds patents on core components of **laser** jet printers.

spot

n. a particular location or place; a small round or roundish area, differing in color or feels from the surface around it

synonym : dot, mark, place

(1) beauty **spot**, (2) a **spot** on his honor

This remote **spot** is rarely visited.

glow

v. to give out a steady, strong light

synonym : shine, radiate, beam

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

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

scatter

v. to cause to separate and go in different directions

synonym : disperse, spread, bestrew

(1) **scatter** seeds, (2) **scatter** around the internet

The hunter's approach **scattered** the geese.

rid

v. to make someone or something free of unwanted or unpleasant tasks, objects, or person

synonym : do away with, free, clear

(1) get **rid** of the rats, (2) **rid** the body of waste products

We must **rid** ourselves of pollution.

glove

n. a piece of clothing worn on the hand and wrist for protection against cold, dirt, etc., with separate parts for each finger

synonym : mitt

(1) a right-hand **glove**, (2) 5-finger **glove**

She was wearing a black **glove**.

optical

adj. of or relating to or light or the ability to see; (noun) the science of light and vision, and to instruments and techniques used in the study and application of light

synonym : visual, ocular

(1) new **optical** glasses, (2) **optical** fiber

The **optical** illusion made it appear like the building was floating in midair.

flesh

n. the soft substance composing the body of a person or animal, as opposed to bones and other structures

synonym : meat, muscle, tissue

(1) grow in **flesh**, (2) **flesh** eating

The **flesh** of the fruit is sweet and juicy.

implant

v. to insert or fix an artificial device in a person's body; to put an idea, attitude, etc., firmly in the mind

synonym : insert, fix, place

(1) **implant** genes in the animals, (2) **implant** into the uterus

The doctor will **implant** a pacemaker to regulate his heart rate.

tumor

n. a mass of diseased tissue that forms when cells in the body divide and grow in an uncontrolled way

synonym : neoplasm, mass, lump

(1) **tumor** growth, (2) **tumor** at remote sites

The patient was diagnosed with a **tumor** in her lung.

holography

n. a technique for creating three-dimensional images using lasers to record and reconstruct interference patterns

synonym : three-dimensional photography, laser holography, digital

holography

(1) optical **holography**, (2) 3D **holography**

Holography technology uses light interference patterns to create a 3D image.

physics

n. the science of matter and energy and their interactions

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

He studied the **physics** of radiation.

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.

hologram

n. a three-dimensional image produced by the interference of light beams from a laser or other coherent light sources used for artistic, scientific, or commercial applications

synonym: 3D image, virtual image, projection

(1) **hologram** projection, (2) **hologram** technology

The museum had a **hologram** exhibit that was very popular with visitors.

capture

v. to catch a person or an animal and confine them in an area which they cannot escape

synonym: catch, arrest, imprison

(1) **capture** a glimpse, (2) **capture** customers' hearts

I was able to **capture** the moment on film.

ray

n. a narrow line of light, heat, or another form of energy

synonym: beam, light, glimmer

(1) opaque to X- **rays**, (2) effect of cosmic **rays**

Gamma **rays** penetrate body tissues and cause cell damage.

photon

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

synonym : particle, quantum, light

(1) **photon** emission, (2) **photon** energy

Infrared cameras detect **photons** in the infrared range of the electromagnetic spectrum.

simultaneously

adv. at the same time

synonym : concurrently, coincidentally, together

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

simultaneously

Two students answered the teacher's question

simultaneously.

amazing

adj. extremely surprising, especially in a way that you like or admire

synonym : exceptional, extraordinary, wonderful

(1) **amazing** advances, (2) the most **amazing** feeling

The golfer recorded an **amazing** distance.

marble

n. a hard crystalline metamorphic rock that has a pattern of lines going through it and takes a high polish used for sculpture and as building material; a small ball made of stone, especially one used in children's games

synonym : stone, rock, sphere

(1) **marble** statues, (2) artificial **marble**

The floor was made of white and black **marble** arranged in a checkerboard pattern.

bounce

v. to cause to move up or away after hitting a surface; to spring back

synonym : bound, leap, spring

(1) **bounce** across the floor, (2) **bounce** back from failure

They will **bounce** between various emotional states.

barrier

n. a fence or other obstruction that makes it hard to move or get in; any condition that makes it difficult to make progress or to achieve an objective

synonym : border, barricade, fence

(1) cost **barrier**, (2) information **barrier**

The police placed a **barrier** across the street to halt traffic.

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.

maze

n. a complex network of winding passages or pathways designed as a puzzle or challenge for people to navigate through

synonym : labyrinth, puzzle, network

(1) puzzle **maze**, (2) labyrinth **maze**

We got lost in the **maze** of streets while exploring the city.

chaotic

adj. without any order or organization; extremely disorganized, unpredictable, and confusing

synonym : disorderly, cluttered, topsy-turvy

(1) the **chaotic** economic situation, (2) **chaotic** theory

Change is also occurring in Turkey as a result of **chaotic** reform.

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**.

matrix

n. a rectangular array of numbers, symbols, or expressions, arranged in rows and columns and often

enclosed in brackets; an enclosure within which something originates or develops

synonym : grid, cast, table

(1) the **matrix** of Western civilization, (2) **matrix** multiplication

The **matrix** of numbers on the spreadsheet allowed the accountant to track the company's profits and losses easily.

stream

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

synonym : flow, current, brook

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

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

setup

n. the arrangement or organization of something, often with a specific purpose or intention; a scheme or plan that is intended to deceive or trick someone

synonym : arrangement, installation, organization

(1) office **setup**, (2) network **setup**

The **setup** for the conference was impressive and professional.

dense

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

synonym : heavy, thick, idiotic

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

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

tissue

n. an ensemble of similar cells of the animal or plant that together carry out a specific function

synonym : structure, texture, anatomy

(1) a facial **tissue**, (2) loss of muscle **tissue**

The researcher separated the nervous **tissue** for microscopic examinations.

translucent

adj. allowing light to pass through but scattering it so that objects behind cannot be seen clearly; partially transparent

synonym : semi-transparent, see-through

(1) **translucent** glass, (2) **translucent** skin

The sunlight shone through the **translucent** curtains, casting a warm glow in the room.

skull

n. a bone framework that surrounds the brain and gives the head its shape

synonym : cranium, scalp, brain

(1) **skull** fracture, (2) have a thick **skull**

Archaeologists found a Neanderthal **skull** at that historic site.

lab

n. a workplace for the conduct of scientific research; a laboratory

synonym : workshop, laboratory, research chamber

(1) **lab** instrument, (2) medical **lab**

The Prime Minister will pay a courtesy visit to the Nobel laureate's **lab**.

gamma

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

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.

X-ray

n. a type of electromagnetic radiation that has a wavelength shorter than visible light allowing hidden objects such as bones and organs inside the body to be photographed

synonym : roentgenogram, photon radiography

(1) **X-ray** scan, (2) an **X-ray** of arteries

The doctor ordered an **X-ray** to see if there was any damage to the bones.

spotlight

n. a beam of light used to illuminate a particular area or person

synonym : limelight, stage light, highlight

(1) **spotlight** effect, (2) **spotlight** moment

The singer was in the **spotlight** as she performed her hit song.

pixel

n. the smallest unit of an image that can be displayed or manipulated electronically, typically a point of light on a computer screen or in a digital image

synonym : dot, point, picture element

(1) **pixel** density, (2) color **pixels**

The computer screen comprises thousands of tiny **pixels** that create the overall picture.

micron

n. a unit of measurement equal to one-millionth of a meter, used for measuring the size of particles and microorganisms

synonym : micrometer

(1) **micron** measurements, (2) **micron** imaging

The width of a single human hair is around 100 **microns**.

maximum

adj. the largest or greatest amount or value attainable or attained

synonym : peak, top, highest

(1) **maximum** limit, (2) the **maximum** speed

The **maximum** temperature recorded this summer was higher than average.

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**.

neuron

n. a cell that is specialized to carry information within the brain and between the brain and other parts of the body

synonym : nerve cell

(1) excite the **neurons**, (2) **neuron** cell body

Our body transfers information along each **neuron** using an electrical impulse.

breakthrough

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

synonym : advance, progress, innovation

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

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

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.

ricochet

v. to rebound or deflect off a surface at an angle or series of angles, changing direction multiple times; to have a sudden and unintended effect or outcome; (noun) the motion of an object or a projectile that is deflected off a surface

synonym : bounce, rebound, spring

(1) **ricochet** off the walls, (2) **ricochet** into a crowd

The police officer fired a warning shot that **ricocheted** off the pavement and hit a nearby car.

excite

v. to make someone feel suddenly enthusiastic or eager

synonym : thrill, exhilarate, animate

(1) **excite** the crowd, (2) **excite** rebellion

The news of her promotion **excited** her.

chunky

adj. characterized by being thick and heavy; containing or consisting of large, solid pieces; having a stocky, muscular build

synonym : chubby, stocky, bulky

(1) **chunky** sweater, (2) a **chunky** necklace
I prefer **chunky** peanut butter over smooth peanut butter.

dramatically

adv. in a very impressive manner

synonym: greatly, noticeably, suddenly

(1) he confessed **dramatically**, (2) the cabin pressure fell **dramatically**

Life expectancy has grown **dramatically** this century.

resolve

v. to find a suitable answer to the problems or difficulty

synonym: decide, determine, fix

(1) **resolve** a dispute, (2) **resolve** the computer error

This company **resolves** its battery problem completely.

medical

adj. relating to the treatment of illness or injuries; relating to the practice of medicine

synonym: health, disease, treatment

(1) a **medical** opinion, (2) temporary **medical** treatment

The **medical** team worked quickly to save the patient's life.

rig

v. to prepare or set up something in a certain way, typically in a carefully planned or fraudulent manner; to equip with sails or masts

synonym: set up, prepare, arrange

(1) **rig** an election, (2) **rig** a ship with new sails

He **rigged** the game so he could win the prize.

scan

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

synonym: look over, scrutinize, browse

(1) **scan** the face of the man, (2) **scan** a document into PDF

She stood on the podium and **scanned** an audience.

monster

n. an imaginary creature that is large and has various human and animal parts; someone or something large and powerful

synonym: giant, freak, behemoth

(1) horde of **monsters**, (2) **monster** film

This car has a **monster** engine.

shrink

v. to become smaller, or to make something smaller in size or amount

synonym: decrease, diminish, shy away

(1) **shrink** the tumor, (2) **shrink** with fear

This shirt will **shrink** in the wash.

replace

v. to take the place of something

synonym: substitute, supersede, displace

(1) **replace** one word with another, (2) **replace** a phone

Eventually, the new design will **replace** all older models.

component

n. one of several parts that combines with others to form something bigger

synonym: element, part, factor

(1) key **component**, (2) spare **components** for cars

The researchers try to discover a common **component** in all types of successful organizations.

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.

circuit

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

(1) **circuit** breaker, (2) federal **circuit** courts

An intelligent battery has a voltage monitoring **circuit**.

display

v. to exhibit or show something to others, often to attract attention or demonstrate its features, properties, or value

synonym: show, exhibit, present

(1) **display** merchandise, (2) **display** artwork

We need to **display** our products in an attractive way to attract customers.

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.

fingernail

n. the hard, slightly curved part that covers the outer tip of each finger

synonym: claw, paw

(1) **fingernail** biting, (2) fake **fingernail**

The car body scraped off with a **fingernail**.

background

n. the details of a person's social heritage, such as family, vocational or educational experience; past information that is essential to understanding a situation or problem

synonym: ground, experience, backdrop

(1) a **background** color, (2) a criminal **background**

The company's hiring criteria emphasize personality, not a person's **background**.

invention

n. the creation of a new device or process resulting from study and experimentation; the act of inventing

synonym: creation, design, innovation

(1) the **invention** of new techniques, (2) common **invention**

Necessity is the mother of **invention**.

prototype

n. a first or preliminary example of something such as a device or vehicle from which other forms are developed

synonym: mock-up, precursor, model

(1) complete a **prototype** product, (2) early **prototype**

The flying car is presently in the **prototype** stage.

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.

consume

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

synonym: absorb, ingest, use up

(1) **consume** a large of alcohol, (2) **consume** electricity

A smaller car will **consume** less fuel.

electron

n. a tiny particle with the negative electrical charge

synonym: negatron

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

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

hairy

adj. covered with hair or having a furry texture; difficult, dangerous, or complicated

synonym: furry, bushy, unkempt

(1) **hairy** situation, (2) **hairy** arms

The new rescue dog was covered in thick, **hairy** fur that kept him warm in cold weather.

architecture

n. the art and science of designing and constructing buildings

synonym: design, structure, layout

(1) **architecture** design, (2) classic **architecture**

The city is known for its impressive **architecture** and beautiful old buildings.

fine-tune

v. to make tiny changes or improvements to make it work as well as possible

synonym: adjust, calibrate, refine

(1) **fine-tune** financial systems, (2) **fine-tune** the engine

The government should not try to **fine-tune** the economy excessively based on a short-term prediction.

fabricate

v. to make something, especially by assembling parts or constructing it from raw materials; to invent and present something false as true or real to deceive someone

synonym: manufacture, assemble, falsify

(1) **fabricate** a chemical, (2) **fabricate** an excuse

The detective discovered that the witness had **fabricated** her story about the crime.

slim

adj. having a slender or thin build, often by design or effort; of small size, amount, or margin; reduced or limited

synonym: slender, thin, lean

(1) **slim** chances, (2) **slim** margin

The **slim** laptop was easy to carry around and perfect for travel.

mock

v. to make fun of someone, usually by imitating them in a witty but harsh way

synonym: gibe (or jibe), make fun of, laugh at

(1) **mock** his accent, (2) **mock** at his misfortune

It is impolite to **mock** fun of an international student's English mistakes.

functional

adj. designed for or capable of a particular activity, purpose, or task; practical or ready for use or service

synonym: applicable, practical, usable

(1) field of **functional** medicine, (2) **functional** deafness

The mobile phone was still **functional** even after being dropped.

disk

n. a flat, circular plate, typically made of metal, glass, or plastic, used for storing data or playing music

synonym : record, platter, plate

(1) **disk** drive, (2) **disk** space

The computer's hard **disk** was full, so she had to delete some files.

represent

v. to speak, act, or be present on behalf of another person or group; to form or constitute

synonym : depict, express, describe

(1) **represent** by a diagram, (2) the characters that **represent** numbers

We elected him to **represent** us at the international conference.

massive

adj. enormous amount; very heavy and solid

synonym : enormous, giant, immense

(1) **massive** amounts, (2) **massive** stars

The recent economic downturn has resulted in **massive** layoffs.

bulky

adj. taking up much space or being difficult to move because of its size or weight; large and unwieldy

synonym : large, cumbersome, unwieldy

(1) **bulky** material, (2) **bulky** packaging

The **bulky** furniture made it difficult to move around the small room.

emit

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

synonym : give off, radiate, expel

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

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

sound.

sonic

adj. connected with the nature of sound, sound waves, or the speed

synonym : audio, auditory

(1) at **sonic** speed, (2) **sonic** wave

That company has introduced a new aircraft that can minimize the generation of a **sonic** boom.

slightly

adv. in a small degree or extent; a little

synonym : barely, narrowly, scarcely

(1) increase **slightly**, (2) **slightly** alkaline soils

He moved his body **slightly** to the left.

pitch

n. the property of sound that varies with variation in the frequency of vibration; the degree of a slope, especially of a roof; short presentation for selling or sharing something

synonym : angle, gradient, slope

(1) make a **pitch** for a new product, (2) a low- **pitched** sound

Her voice gradually increased in **pitch**.

beam

n. a long, sturdy piece of timber, metal, or other material used to support a structure or span a distance; a ray or stream of light emitted by a source

synonym : ray, ray of light, shaft of light

(1) **beam** of light, (2) a structural **beam** of a building

The sun's **beam** shone through the window and illuminated the room.

glowing

adj. highly enthusiastic; greatly praised

synonym : burning, bright, flaming

(1) **glowing** reviews, (2) **glowing** cheeks

The western sky was **glowing** pink.

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.

extract

n. a short passage taken from a book, piece of music, etc.; a substance obtained from something through a specific process; (verb) to obtain from something or to remove something by effort or force

synonym : excerpt, quote, distillation

(1) a brief **extract** from the book, (2) botanical **extract**
Anesthetize the gum before **extracting** the teeth.

filter

n. any of several types of equipment or systems used to separate particles from liquids or gases or to remove specific forms of light

synonym : strainer

(1) gas **filter**, (2) clogged **filter**

Ozone is a primary **filter** to protect Earth's surface from harmful UV rays.

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.

shift

n. a slight transition in position, direction, or trend

synonym : transition, change, modification

(1) Doppler **shift**, (2) major paradigm **shift**

Could you help me **shift** some furniture?

decode

v. to convert something, such as a message or piece of information, from a specific form into one that you can understand

synonym : decipher, translate, interpret

(1) **decode** a message, (2) ability to **decode** the differences
The software could **decode** the encrypted data and reveal the hidden information.

icon

n. a picture or statue of a holy person considered to be a sacred thing; a little icon on the screen of a computer or smartphone that denotes an application or a file

synonym : figure, hero, idol

(1) **icon** for young people, (2) television **icon**

Some comic book characters are considered gay **icons**.

diffraction

n. the bending of waves, particularly light or sound waves, as they pass through a small opening or around an obstacle, causing interference or the separation of the waves into distinct bands or zones

synonym : bending, refraction, scattering

(1) X-ray **diffraction**, (2) **diffraction** grating

The **diffraction** pattern of the light passing through the prism was a beautiful rainbow of colors.

rev

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

synonym : revolution, RPM, speed

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

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

structure

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

synonym : construction, architecture, establishment

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

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

straightforward.

extraordinary

adj. exceptional, unexpected, very unusual; surpassing the ordinary or usual

synonym: exceptional, noteworthy, astonishing

(1) **extraordinary** ability, (2) **extraordinary** weather

He narrated the **extraordinary** story of his adventure.

absorb

v. to take in a fluid or other substance gradually

synonym: consume, soak, ingest

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

The sponge **absorbs** water well.

beak

n. the hard and pointed or curved mouth of a bird

synonym: nib, pecker, snout

(1) sharp **beak**, (2) a tip of the **beak**

The bird's **beak** evolves according to the type of prey it can take on the area.

comparison

n. the consideration or examination of the similarities between two or more people or things

synonym: equivalence, analogy, contrast

(1) ease of **comparison**, (2) **comparison** of foods on a caloric basis

I've included the two designs for a **comparison**.

pound

n. the standard unit of money in the UK; the standard unit of weight equal to 16 ounces

(1) three-fourths of a **pound**, (2) thousands of **pounds**

The car's front bumper cost fifteen hundred **pounds**.

cubic

adj. having the shape of a cube or being of three dimensions; measured in units that are the third power of a linear unit

synonym: three-dimensional, boxlike, cubical

(1) **cubic** meter, (2) **cubic** structure

The package was a **cubic** shape, which made it easier to stack on the shelf.

norm

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

synonym: criterion, mean, standard

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

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

detect

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

synonym: catch, observe, notice

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

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

cancer

n. abnormal growth of cells that can invade and destroy surrounding tissues and organs; a disease characterized by the uncontrolled growth and spread of abnormal cells

synonym: tumor, carcinoma, malignancy

(1) **cancer** diagnosis, (2) **cancer** research

Breast **cancer** is the most common type of cancer in women.

intervention

n. the action or process of being done to improve or help a circumstance, often they have not been asked to do so

synonym: interference, intercession, treatment

(1) **intervention** by foreign powers, (2) surgical

intervention

This **intervention** does not require the patient's consent.

clog

v. to obstruct or block up (a passage, pipe, or system) with an accumulation of thick or sticky matter; to impede or hinder the progress or movement of something

synonym: block, jam, obstruct

(1) **clog** a filter, (2) **clog** artery

The drain was **clogged** with hair and needed to be cleaned out.

artery

n. one of the thick tubes in humans and most other animals that takes blood away from the heart to one or more parts of the body such as tissues, lungs, brain, etc.

synonym: blood vessel, channel, roadway

(1) **artery** blockage, (2) risk of coronary **artery** disease
Continuous consumption of fatty foods leads to the hardening of the **artery**.

oxygen

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

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

neural

adj. of or relating to a nerve or the nervous system that includes the brain

synonym: sensory, neuronic, nervous

(1) **neural** stem cells, (2) **neural** networks in AI
There was a disturbance of **neural** function.

sunlight

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

synonym: daylight, rays, sunshine

(1) a glare of **sunlight**, (2) in direct **sunlight**
Radiation from **sunlight** has a different wavelength.

disinfectant

n. a substance used to destroy germs or bacteria on surfaces, often used in medical or cleaning settings

synonym: disinfecting agent, sanitizer, antiseptic

(1) **disinfectant** spray, (2) medical **disinfectant**
The hospital uses a strong **disinfectant** to clean the operating room after each surgery.

pneumonia

n. an infection or inflammation of the lungs, typically caused by bacteria, viruses, or other microorganisms

synonym: lung infection, bronchitis

(1) bacterial **pneumonia**, (2) viral **pneumonia**
She was hospitalized with a severe case of **pneumonia**.

lung

n. either of the two organs in the chest that people and some animals use for breathing

(1) **lung** capacity, (2) do **lung** transplantation

He has terminal **lung** cancer.

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.

stroke

n. a medical condition in which poor blood flow to the brain causes cell death; the act of swinging or striking at a ball with a club, racket, etc.

synonym: blow

(1) suffer **stroke**, (2) a **stroke** of the putter

This year's extreme heat has resulted in many heat **stroke** cases.

rupture

n. a break or tear in something, especially a bodily tissue or a physical object

synonym: fracture, break, tear

(1) a **rupture** between friends, (2) the **rupture** of a blood vessel

A fault line **rupture** can cause significant damage and destruction to surrounding areas.

determinant

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

synonym: cause, factor, element

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

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

medication

n. a drug or other form of medicine that treats, prevents, or alleviates the symptoms of the disease

synonym : cure, drug, medicine

(1) antibiotic **medication**, (2) **medication** by mouth

The pharmacist not only prescribes the **medication** but also guides its proper use.

damage

v. to harm or cause injury to something or someone, often resulting in decreased value or functionality; to impair or negatively affect something, such as a reputation or relationship; (noun) harm or injury that is caused to a person, thing, or entity

synonym : harm, impair, injure

(1) **damage** a relationship, (2) **damage** assessment

During the surgery, the doctor had to be extremely cautious not to **damage** a blood vessel.

patient

n. a person who is receiving medical treatment, care, or attention from a healthcare professional, such as a doctor, nurse, or therapist; a personal quality or characteristic

synonym : client, recipient, subject

(1) **patient** in the hospital, (2) **patient** with weight loss

The doctor carefully examined the **patient's** medical history.

compact

adj. closely and firmly united or packed together, using very little space; smaller than is usual

synonym : packed, tight, consolidated

(1) a **compact** camera, (2) extremely **compact** device

Two countries acted together as if by **compact**.

inexpensive

adj. costing little; having a low price

synonym : cheap, affordable, economical

(1) **inexpensive** option, (2) an **inexpensive** inn

The restaurant offered delicious food at an **inexpensive** price.

ambulance

n. a vehicle specifically designed and equipped to transport sick or injured people to and from hospitals and other medical facilities

(1) dispatch an **ambulance**, (2) **ambulance** service

The **ambulance** crew quickly stabilized the patient before transporting them to the hospital.

clinic

n. a building or hospital department where people can go for medical care or advice, especially of a particular condition

synonym : hospital, infirmary

(1) visit to the veterinary **clinic**, (2) a dental **clinic**

She holds a **clinic** on Tuesday mornings.

therapy

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

synonym : antidote, medicine, treatment

(1) **therapy** for a patient, (2) field of gene **therapy**

I underwent aversion **therapy** for my addiction to alcohol.

countless

adj. too numerous to be counted or very many

synonym : innumerable, myriad, numerous

(1) **countless** hours, (2) answer **countless** questions

There are **countless** methods for dealing with stress.

communicate

v. to share or exchange information with others by speaking, writing, moving your body, or using other signals

synonym : convey, share, transmit

(1) **communicate** his anxieties to the psychiatrist,

(2) **communicate** well with my advisor

Dolphins use sound to **communicate** with each other.

onstage

adv. onto or on a stage in a theater; in front of an audience

(1) appeared **onstage**, (2) walk **onstage**

He performed his magic trick **onstage**, leaving the audience in awe.

inhibit

v. to prevent something, such as an action, process, etc., from happening or make it less likely to happen than normal

synonym: deter, hinder, impede

(1) **inhibit** desires, (2) **inhibit** tumor growth

Excessive parental interference may **inhibit** children's eagerness to learn.

specification

n. a detailed description of the characteristics, features, or requirements of something, typically a product or system; a written statement that outlines the standards, procedures, or requirements for a project or job

synonym: description, requirement, guideline

(1) functional **specification**, (2) engineering **specification**

The project's **specifications** outlined the goals and requirements for the team to complete.

MRI

n. (abbreviation for magnetic resonance imaging) a medical imaging technique that uses a strong magnetic field and radio waves to produce detailed images of the inside of the body

(1) **MRI** brain image, (2) cardiac **MRI**

The **MRI** machine uses powerful magnets to produce detailed images of the inside of the body.

magnet

n. an object or substance that can attract certain materials, such as iron or steel

synonym: magnetite, lodestone, attracting substance

(1) **magnet** attraction, (2) permanent **magnet**

The MRI machine uses **magnets** to produce images of the body's internal organs.

surgery

n. medical treatment of injuries or diseases involving an incision with instruments and often removing or replacing some parts of the body; the branch of medical science that treats disease or injury by operative procedures

synonym: operation, (medical) procedure

(1) cardiac **surgery**, (2) the professor of **surgery**
He had undergone heart **surgery** years before.

enormous

adj. extremely large or great
synonym: huge, giant, gigantic

(1) **enormous** amount, (2) **enormous** potential
Shakespeare's output of poetry was **enormous**.

suffer

v. to experience pain, distress, or hardship; to undergo or endure something painful or unpleasant
synonym: endure, undergo, tolerate

(1) **suffer** a setback, (2) **suffer** bad grades
The older man **suffers** from arthritis and finds it difficult to move around.

disease

n. 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** control
The doctor diagnosed him with a rare **disease** that had no known cure.

scary

adj. causing fear or fright; frightening; intimidating
synonym: terrifying, frightening, alarming

(1) **scary** dream, (2) **scary** story
The horror movie was so **scary** that I couldn't watch it alone.

Session 2: Spelling

1. sp_____ht moment *n.* a beam of light used to illuminate a particular area or person
2. da___e assessment *v.* to harm or cause injury to something or someone, often resulting in decreased value or functionality; to impair or negatively affect something, such as a reputation or relationship; (noun) harm or injury that is caused to a person, thing, or entity
3. take several inputs sim_____sly *adv.* at the same time
4. in_____t desires *v.* to prevent something, such as an action, process, etc., from happening or make it less likely to happen than normal
5. risk of coronary ar___y disease *n.* one of the thick tubes in humans and most other animals that takes blood away from the heart to one or more parts of the body such as tissues, lungs, brain, etc.
6. em___e as a butterfly *v.* to move out of or away from something and become visible
7. laws of ph_____s *n.* the science of matter and energy and their interactions
8. an X-__y of arteries *n.* a type of electromagnetic radiation that has a wavelength shorter than visible light allowing hidden objects such as bones and organs inside the body to be photographed

ANSWERS: 1. spotlight, 2. damage, 3. simultaneously, 4. inhibit, 5. artery, 6. emerge, 7. physics, 8. X-ray

9. fi_____ne the engine *v.* to make tiny changes or improvements to make it work as well as possible
10. bu__y packaging *adj.* taking up much space or being difficult to move because of its size or weight; large and unwieldy
11. ca_____e customers' hearts *v.* to catch a person or an animal and confine them in an area which they cannot escape
12. the most am_____g feeling *adj.* extremely surprising, especially in a way that you like or admire
13. bacterial pn_____ia *n.* an infection or inflammation of the lungs, typically caused by bacteria, viruses, or other microorganisms
14. ga__a radiation *n.* the third letter of the Greek alphabet; a type of radiation having the shortest wavelength and highest energy of electromagnetic waves
15. sh___k the tumor *v.* to become smaller, or to make something smaller in size or amount
16. mi___n imaging *n.* a unit of measurement equal to one-millionth of a meter, used for measuring the size of particles and microorganisms
17. re_____e the computer error *v.* to find a suitable answer to the problems or difficulty
18. ab___b a shock *v.* to take in a fluid or other substance gradually
19. ex___e the crowd *v.* to make someone feel suddenly enthusiastic or eager

ANSWERS: 9. fine-tune, 10. bulky, 11. capture, 12. amazing, 13. pneumonia, 14. gamma, 15. shrink, 16. micron, 17. resolve, 18. absorb, 19. excite

20. the st___m of time *n.* a small, narrow river; a continuous flow of something, such as liquid, gas, people, vehicles, etc.
21. di_____er of an oval *n.* the length of a straight line passing through the center of a circle and connecting two points on the circumference
22. b__m of light *n.* a long, sturdy piece of timber, metal, or other material used to support a structure or span a distance; a ray or stream of light emitted by a source
23. a fa_____ic dress *adj.* extremely good; excellent
24. medical l_b *n.* a workplace for the conduct of scientific research; a laboratory
25. spare co_____nts for cars *n.* one of several parts that combines with others to form something bigger
26. in_____ve breast cancer *adj.* spreading very quickly, and often aggressively, and difficult to stop
27. a co_____t camera *adj.* closely and firmly united or packed together, using very little space; smaller than is usual
28. sc_____r around the internet *v.* to cause to separate and go in different directions
29. X-ray dif_____on *n.* the bending of waves, particularly light or sound waves, as they pass through a small opening or around an obstacle, causing interference or the separation of the waves into distinct bands or zones

ANSWERS: 20. stream, 21. diameter, 22. beam, 23. fantastic, 24. lab, 25. component, 26. invasive, 27. compact, 28. scatter, 29. diffraction

30. tra_____nt skin *adj.* allowing light to pass through but scattering it so that objects behind it cannot be seen clearly; partially transparent
31. basic br__n function *n.* the organ inside the head that is responsible for one's movement, thought, memory, and feeling
32. c__g a filter *v.* to obstruct or block up (a passage, pipe, or system) with an accumulation of thick or sticky matter; to impede or hinder the progress or movement of something
33. ma_____e amounts *adj.* enormous amount; very heavy and solid
34. i__n for young people *n.* a picture or statue of a holy person considered to be a sacred thing; a little icon on the screen of a computer or smartphone that denotes an application or a file
35. ne____n cell body *n.* a cell that is specialized to carry information within the brain and between the brain and other parts of the body
36. network se__p *n.* the arrangement or organization of something, often with a specific purpose or intention; a scheme or plan that is intended to deceive or trick someone
37. ca_____e a glimpse *v.* to catch a person or an animal and confine them in an area which they cannot escape
38. dis_____ant spray *n.* a substance used to destroy germs or bacteria on surfaces, often used in medical or cleaning settings

ANSWERS: 30. translucent, 31. brain, 32. clog, 33. massive, 34. icon, 35. neuron, 36. setup, 37. capture, 38. disinfectant

39. in_____ed radiation *adj.* relating to or denoting electromagnetic radiation with a wavelength just longer than that of red light but shorter than that of microwave radiation, used for sensing heat and for remote control
40. he confessed dra_____lly *adv.* in a very impressive manner
41. in_____t tumor growth *v.* to prevent something, such as an action, process, etc., from happening or make it less likely to happen than normal
42. optical hol_____hy *n.* a technique for creating three-dimensional images using lasers to record and reconstruct interference patterns
43. cultural n___m *n.* something that is regarded as usual, typical, or standard
44. am_____g advances *adj.* extremely surprising, especially in a way that you like or admire
45. c___g artery *v.* to obstruct or block up (a passage, pipe, or system) with an accumulation of thick or sticky matter; to impede or hinder the progress or movement of something
46. nuclear ph_____s *n.* the science of matter and energy and their interactions
47. suffer st___e *n.* a medical condition in which poor blood flow to the brain causes cell death; the act of swinging or striking at a ball with a club, racket, etc.
48. viral pn_____ia *n.* an infection or inflammation of the lungs, typically caused by bacteria, viruses, or other microorganisms

ANSWERS: 39. infrared, 40. dramatically, 41. inhibit, 42. holography, 43. norm, 44. amazing, 45. clog, 46. physics, 47. stroke, 48. pneumonia

49. artificial ma___e *n.* a hard crystalline metamorphic rock that has a pattern of lines going through it and takes a high polish used for sculpture and as building material; a small ball made of stone, especially one used in children's games
50. beam of el_____ons *n.* a tiny particle with the negative electrical charge
51. visit to the veterinary cl___c *n.* a building or hospital department where people can go for medical care or advice, especially of a particular condition
52. antibiotic med_____on *n.* a drug or other form of medicine that treats, prevents, or alleviates the symptoms of the disease
53. ext_____ary ability *adj.* exceptional, unexpected, very unusual; surpassing the ordinary or usual
54. int_____ion by foreign powers *n.* the action or process of being done to improve or help a circumstance, often they have not been asked to do so
55. an ine_____ve inn *adj.* costing little; having a low price
56. a me_____l opinion *adj.* relating to the treatment of illness or injuries; relating to the practice of medicine
57. lack of ox___n *n.* the chemical element with the symbol O that is present in air and water and is necessary for people, animals, and plants to live
58. fun_____al deafness *adj.* designed for or capable of a particular activity, purpose, or task; practical or ready for use or service

ANSWERS: 49. marble, 50. electron, 51. clinic, 52. medication, 53. extraordinary, 54. intervention, 55. inexpensive, 56. medical, 57. oxygen, 58. functional

59. bo___e across the floor *v.* to cause to move up or away after hitting a surface; to spring back
60. in direct su____ht *n.* the light emitted by the sun; the rays of the sun
61. the hydrogen binds the ox___n *n.* the chemical element with the symbol O that is present in air and water and is necessary for people, animals, and plants to live
62. m__k at his misfortune *v.* to make fun of someone, usually by imitating them in a witty but harsh way
63. ma____t attraction *n.* an object or substance that can attract certain materials, such as iron or steel
64. mo____r film *n.* an imaginary creature that is large and has various human and animal parts; someone or something large and powerful
65. 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
66. ca____r research *n.* abnormal growth of cells that can invade and destroy surrounding tissues and organs; a disease characterized by the uncontrolled growth and spread of abnormal cells
67. extremely co____t device *adj.* closely and firmly united or packed together, using very little space; smaller than is usual
68. M_I brain image *n.* (abbreviation for magnetic resonance imaging) a medical imaging technique that uses a strong magnetic field and radio waves to produce detailed images of the inside of the body

ANSWERS: 59. bounce, 60. sunlight, 61. oxygen, 62. mock, 63. magnet, 64. monster, 65. chip, 66. cancer, 67. compact, 68. MRI

69. labyrinth m__e *n.* a complex network of winding passages or pathways designed as a puzzle or challenge for people to navigate through
70. co_____ss hours *adj.* too numerous to be counted or very many
71. beauty s__t *n.* a particular location or place; a small round or roundish area, differing in color or feels from the surface around it
72. en____us potential *adj.* extremely large or great
73. da___e a relationship *v.* to harm or cause injury to something or someone, often resulting in decreased value or functionality; to impair or negatively affect something, such as a reputation or relationship; (noun) harm or injury that is caused to a person, thing, or entity
74. many tr_____ons of dollars *n.* the number 1,000,000,000,000; a million million
75. the ma___x of Western civilization *n.* a rectangular array of numbers, symbols, or expressions, arranged in rows and columns and often enclosed in brackets; an enclosure within which something originates or develops
76. sk__l fracture *n.* a bone framework that surrounds the brain and gives the head its shape
77. medical dis_____ant *n.* a substance used to destroy germs or bacteria on surfaces, often used in medical or cleaning settings

ANSWERS: 69. maze, 70. countless, 71. spot, 72. enormous, 73. damage, 74. trillion, 75. matrix, 76. skull, 77. disinfectant

78. di_____y merchandise *v.* to exhibit or show something to others, often to attract attention or demonstrate its features, properties, or value
79. puzzle m__e *n.* a complex network of winding passages or pathways designed as a puzzle or challenge for people to navigate through
80. l_b instrument *n.* a workplace for the conduct of scientific research; a laboratory
81. fin_____il biting *n.* the hard, slightly curved part that covers the outer tip of each finger
82. am_____ce service *n.* a vehicle specifically designed and equipped to transport sick or injured people to and from hospitals and other medical facilities
83. com_____te his anxieties to the psychiatrist *v.* to share or exchange information with others by speaking, writing, moving your body, or using other signals
84. ex___e rebellion *v.* to make someone feel suddenly enthusiastic or eager
85. arc_____ure design *n.* the art and science of designing and constructing buildings
86. common in_____on *n.* the creation of a new device or process resulting from study and experimentation; the act of inventing
87. Doppler sh__t *n.* a slight transition in position, direction, or trend
88. complete a pr_____pe product *n.* a first or preliminary example of something such as a device or vehicle from which other forms are developed

ANSWERS: 78. display, 79. maze, 80. lab, 81. fingernail, 82. ambulance, 83. communicate, 84. excite, 85. architecture, 86. invention, 87. shift, 88. prototype

89. en____us amount *adj.* extremely large or great
90. gl____g cheeks *adj.* highly enthusiastic; greatly praised
91. d__k space *n.* a flat, circular plate, typically made of metal, glass, or plastic, used for storing data or playing music
92. a be____n smile *adj.* kind and gentle; not harmful or malicious
93. pulse la__r *n.* a device that emits powerful and narrow light that can be used as a tool to cut metal through a process of optical amplification
94. 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
95. m__k his accent *v.* to make fun of someone, usually by imitating them in a witty but harsh way
96. 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
97. ch____y sweater *adj.* characterized by being thick and heavy; containing or consisting of large, solid pieces; having a stocky, muscular build
98. be____n tumor *adj.* kind and gentle; not harmful or malicious

ANSWERS: 89. enormous, 90. glowing, 91. disk, 92. benign, 93. laser, 94. develop, 95. mock, 96. develop, 97. chunky, 98. benign

99. de___t smuggling across borders *v.* to find or recognize something, especially something difficult to see, hear, etc.
100. re_____e one word with another *v.* to take the place of something
101. nutrient-de___e foods *adj.* containing a large number of people or something with little space between them
102. 5-finger gl___e *n.* a piece of clothing worn on the hand and wrist for protection against cold, dirt, etc., with separate parts for each finger
103. a low-pi___hed sound *n.* the property of sound that varies with variation in the frequency of vibration; the degree of a slope, especially of a roof; short presentation for selling or sharing something
104. have a thick sk___l *n.* a bone framework that surrounds the brain and gives the head its shape
105. X-___y scan *n.* a type of electromagnetic radiation that has a wavelength shorter than visible light allowing hidden objects such as bones and organs inside the body to be photographed
106. ar___y blockage *n.* one of the thick tubes in humans and most other animals that takes blood away from the heart to one or more parts of the body such as tissues, lungs, brain, etc.
107. co_____e electricity *v.* to spend something, especially fuel, energy, or time, in a large amount

ANSWERS: 99. detect, 100. replace, 101. dense, 102. glove, 103. pitch, 104. skull, 105. X-ray, 106. artery, 107. consume

108. color pi__ls *n.* the smallest unit of an image that can be displayed or manipulated electronically, typically a point of light on a computer screen or in a digital image
109. su___r bad grades *v.* to experience pain, distress, or hardship; to undergo or endure something painful or unpleasant
110. tu__r at remote sites *n.* a mass of diseased tissue that forms when cells in the body divide and grow in an uncontrolled way
111. a criminal bac_____nd *n.* the details of a person's social heritage, such as family, vocational or educational experience; past information that is essential to understanding a situation or problem
112. 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
113. ma_____e stars *adj.* enormous amount; very heavy and solid
114. increase sl_____ly *adv.* in a small degree or extent; a little
115. l__g capacity *n.* either of the two organs in the chest that people and some animals use for breathing
116. re_____nt by a diagram *v.* to speak, act, or be present on behalf of another person or group; to form or constitute
117. und_____th the surface of the water *adv.* under or below something else

ANSWERS: 108. pixel, 109. suffer, 110. tumor, 111. background, 112. chip, 113. massive, 114. slightly, 115. lung, 116. represent, 117. underneath

118. walk on____e *adv.* onto or on a stage in a theater; in front of an audience
119. cost ba____r *n.* a fence or other obstruction that makes it hard to move or get in; any condition that makes it difficult to make progress or to achieve an objective
120. get r_d of the rats *v.* to make someone or something free of unwanted or unpleasant tasks, objects, or person
121. tu__r growth *n.* a mass of diseased tissue that forms when cells in the body divide and grow in an uncontrolled way
122. office se__p *n.* the arrangement or organization of something, often with a specific purpose or intention; a scheme or plan that is intended to deceive or trick someone
123. th____y for a patient *n.* the act of caring for someone through medication, remedial training, etc.
124. ma____m limit *adj.* the largest or greatest amount or value attainable or attained
125. sharp b__k *n.* the hard and pointed or curved mouse of a bird
126. a particle di____er *n.* the length of a straight line passing through the center of a circle and connecting two points on the circumference
127. com_____te well with my advisor *v.* to share or exchange information with others by speaking, writing, moving your body, or using other signals

ANSWERS: 118. onstage, 119. barrier, 120. rid, 121. tumor, 122. setup, 123. therapy, 124. maximum, 125. beak, 126. diameter, 127. communicate

128. information ba____r *n.* a fence or other obstruction that makes it hard to move or get in; any condition that makes it difficult to make progress or to achieve an objective
129. d__k drive *n.* a flat, circular plate, typically made of metal, glass, or plastic, used for storing data or playing music
130. gl____g reviews *adj.* highly enthusiastic; greatly praised
131. de___t a bad event *v.* to find or recognize something, especially something difficult to see, hear, etc.
132. the in_____on of new techniques *n.* the creation of a new device or process resulting from study and experimentation; the act of inventing
133. fl__h eating *n.* the soft substance composing the body of a person or animal, as opposed to bones and other structures
134. fa_____te an excuse *v.* to make something, especially by assembling parts or constructing it from raw materials; to invent and present something false as true or real to deceive someone
135. ne___l networks in AI *adj.* of or relating to a nerve or the nervous system that includes the brain
136. sl_____ly alkaline soils *adv.* in a small degree or extent; a little
137. make a pi__h for a new product *n.* the property of sound that varies with variation in the frequency of vibration; the degree of a slope, especially of a roof; short presentation for selling or sharing something

ANSWERS: 128. barrier, 129. disk, 130. glowing, 131. detect, 132. invention, 133. flesh, 134. fabricate, 135. neural, 136. slightly, 137. pitch

138. e__t a gamma ray *v.* to give off or send out something such as light, heat, sound, gas, etc.
139. a brief ex_____t from the book *n.* a short passage taken from a book, piece of music, etc.; a substance obtained from something through a specific process; (verb) to obtain from something or to remove something by effort or force
140. sc__y dream *adj.* causing fear or fright; frightening; intimidating
141. ab___b energy *v.* to take in a fluid or other substance gradually
142. bre_____ugh in the negotiations *n.* a sudden, dramatic, and important discovery or development that helps to improve a situation or provide an answer to a problem
143. horde of mo____rs *n.* an imaginary creature that is large and has various human and animal parts; someone or something large and powerful
144. ch_____c theory *adj.* without any order or organization; extremely disorganized, unpredictable, and confusing
145. ri_____et off the walls *v.* to rebound or deflect off a surface at an angle or series of angles, changing direction multiple times; to have a sudden and unintended effect or outcome; (noun) the motion of an object or a projectile that is deflected off a surface

ANSWERS: 138. emit, 139. extract, 140. scary, 141. absorb, 142. breakthrough, 143. monster, 144. chaotic, 145. ricochet

146. com_____on of foods on a caloric basis *n.* the consideration or examination of the similarities between two or more people or things
147. in_____te 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
148. do l__g transplantaion *n.* either of the two organs in the chest that people and some animals use for breathing
149. a ch___y necklace *adj.* characterized by being thick and heavy; containing or consisting of large, solid pieces; having a stocky, muscular build
150. natural tra_____nce *n.* the quality of being translucent; the ability of a material to allow light to pass through but not clearly enough to distinguish objects on the other side
151. the ch_____c economic situation *adj.* without any order or organization; extremely disorganized, unpredictable, and confusing
152. opaque to X-r_ys *n.* a narrow line of light, heat, or another form of energy
153. federal ci_____t 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
154. de___e a message *v.* to convert something, such as a message or piece of information, from a specific form into one that you can understand

ANSWERS: 146. comparison, 147. integrate, 148. lung, 149. chunky, 150. translucence, 151. chaotic, 152. ray, 153. circuit, 154. decode

155. di____y artwork *v.* to exhibit or show something to others, often to attract attention or demonstrate its features, properties, or value
156. ne___l stem cells *adj.* of or relating to a nerve or the nervous system that includes the brain
157. und_____th the laughter *adv.* under or below something else
158. a det_____nt of crop yields *n.* a factor, circumstance, or condition that contributes to the shaping, influencing, or determining of a particular outcome or result
159. a s__t on his honor *n.* a particular location or place; a small round or roundish area, differing in color or feels from the surface around it
160. s__n the face of the man *v.* to examine something hastily, with the eyes or with a machine, to get information
161. im_____t into the uterus *v.* to insert or fix an artificial device in a person's body; to put an idea, attitude, etc., firmly in the mind
162. cardiac M_I *n.* (abbreviation for magnetic resonance imaging) a medical imaging technique that uses a strong magnetic field and radio waves to produce detailed images of the inside of the body
163. key co_____nt *n.* one of several parts that combines with others to form something bigger
164. ca___r diagnosis *n.* abnormal growth of cells that can invade and destroy surrounding tissues and organs; a disease characterized by the uncontrolled growth and spread of abnormal cells

ANSWERS: 155. display, 156. neural, 157. underneath, 158. determinant, 159. spot, 160. scan, 161. implant, 162. MRI, 163. component, 164. cancer

165. r_g an election *v.* to prepare or set up something in a certain way, typically in a carefully planned or fraudulent manner; to equip with sails or masts
166. a structural b__m of a building *n.* a long, sturdy piece of timber, metal, or other material used to support a structure or span a distance; a ray or stream of light emitted by a source
167. tr____on cubic feet *n.* the number 1,000,000,000,000; a million million
168. permanent br__n damage *n.* the organ inside the head that is responsible for one's movement, thought, memory, and feeling
169. s__m margin *adj.* having a slender or thin build, often by design or effort; of small size, amount, or margin; reduced or limited
170. dispatch an am____ce *n.* a vehicle specifically designed and equipped to transport sick or injured people to and from hospitals and other medical facilities
171. ga__a particles *n.* the third letter of the Greek alphabet; a type of radiation having the shortest wavelength and highest energy of electromagnetic waves
172. cardiac su____y *n.* medical treatment of injuries or diseases involving an incision with instruments and often removing or replacing some parts of the body; the branch of medical science that treats disease or injury by operative procedures

ANSWERS: 165. rig, 166. beam, 167. trillion, 168. brain, 169. slim, 170. ambulance, 171. gamma, 172. surgery

173. ri____et into a crowd *v.* to rebound or deflect off a surface at an angle or series of angles, changing direction multiple times; to have a sudden and unintended effect or outcome; (noun) the motion of an object or a projectile that is deflected off a surface
174. ph____n emission *n.* a unit or quantum of electromagnetic energy, typically regarded as a particle that is the basic constituent of all light and other forms of electromagnetic radiation
175. low-r_v engine *n.* a measure of the rate at which an engine or motor rotates, often expressed in revolutions per minute (RPM); (verb) to increase the number of rotations per minute
176. television i__n *n.* a picture or statue of a holy person considered to be a sacred thing; a little icon on the screen of a computer or smartphone that denotes an application or a file
177. major paradigm sh__t *n.* a slight transition in position, direction, or trend
178. tra_____nt glass *adj.* allowing light to pass through but scattering it so that objects behind cannot be seen clearly; partially transparent
179. sim_____sly affected *adv.* at the same time
180. the ma____m speed *adj.* the largest or greatest amount or value attainable or attained

ANSWERS: 173. ricochet, 174. photon, 175. rev, 176. icon, 177. shift, 178. translucent, 179. simultaneously, 180. maximum

181. a facial ti___e *n.* an ensemble of similar cells of the animal or plant that together carry out a specific function
182. a dental cl___c *n.* a building or hospital department where people can go for medical care or advice, especially of a particular condition
183. draw an____y *n.* a comparison between similar things that have similar aspects, often used to help explain a principle or concept
184. fake fin_____il *n.* the hard, slightly curved part that covers the outer tip of each finger
185. re_____e a phone *v.* to take the place of something
186. fa_____te a chemical *v.* to make something, especially by assembling parts or constructing it from raw materials; to invent and present something false as true or real to deceive someone
187. ext_____ary weather *adj.* exceptional, unexpected, very unusual; surpassing the ordinary or usual
188. ho_____am projection *n.* a three-dimensional image produced by the interference of light beams from a laser or other coherent light sources used for artistic, scientific, or commercial applications
189. mi___n measurements *n.* a unit of measurement equal to one-millionth of a meter, used for measuring the size of particles and microorganisms

ANSWERS: 181. tissue, 182. clinic, 183. analogy, 184. fingernail, 185. replace, 186. fabricate, 187. extraordinary, 188. hologram, 189. micron

190. la__r printer *n.* a device that emits powerful and narrow light that can be used as a tool to cut metal through a process of optical amplification
191. an endless st___m of cars *n.* a small, narrow river; a continuous flow of something, such as liquid, gas, people, vehicles, etc.
192. fi_____ne financial systems *v.* to make tiny changes or improvements to make it work as well as possible
193. the st_____re of a machine *n.* the way of construction of something and the arrangement of its parts, or a complex thing constructed of many parts
194. r_g a ship with new sails *v.* to prepare or set up something in a certain way, typically in a carefully planned or fraudulent manner; to equip with sails or masts
195. effect of cosmic r_ys *n.* a narrow line of light, heat, or another form of energy
196. in_____ve species *adj.* spreading very quickly, and often aggressively, and difficult to stop
197. de__e forests *adj.* containing a large number of people or something with little space between them
198. bo___e back from failure *v.* to cause to move up or away after hitting a surface; to spring back
199. in_____te 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: 190. laser, 191. stream, 192. fine-tune, 193. structure, 194. rig, 195. ray, 196. invasive, 197. dense, 198. bounce, 199. integrate

200. pi__l density *n.* the smallest unit of an image that can be displayed or manipulated electronically, typically a point of light on a computer screen or in a digital image
201. grow in fl__h *n.* the soft substance composing the body of a person or animal, as opposed to bones and other structures
202. appeared on____e *adv.* onto or on a stage in a theater; in front of an audience
203. functional spe_____ion *n.* a detailed description of the characteristics, features, or requirements of something, typically a product or system; a written statement that outlines the standards, procedures, or requirements for a project or job
204. g__w gold in the light *v.* to give out a steady, strong light
205. ma___e statues *n.* a hard crystalline metamorphic rock that has a pattern of lines going through it and takes a high polish used for sculpture and as building material; a small ball made of stone, especially one used in children's games
206. botanical ex____t *n.* a short passage taken from a book, piece of music, etc.; a substance obtained from something through a specific process; (verb) to obtain from something or to remove something by effort or force
207. early pr_____pe *n.* a first or preliminary example of something such as a device or vehicle from which other forms are developed

ANSWERS: 200. pixel, 201. flesh, 202. onstage, 203. specification, 204. glow, 205. marble, 206. extract, 207. prototype

208. cu__c structure *adj.* having the shape of a cube or being of three dimensions; measured in units that are the third power of a linear unit
209. historical an____y *n.* a comparison between similar things that have similar aspects, often used to help explain a principle or concept
210. tra_____nce of water *n.* the quality of being translucent; the ability of a material to allow light to pass through but not clearly enough to distinguish objects on the other side
211. field of fun_____al medicine *adj.* designed for or capable of a particular activity, purpose, or task; practical or ready for use or service
212. a right-hand gl__e *n.* a piece of clothing worn on the hand and wrist for protection against cold, dirt, etc., with separate parts for each finger
213. re_____e a dispute *v.* to find a suitable answer to the problems or difficulty
214. permanent ma____t *n.* an object or substance that can attract certain materials, such as iron or steel
215. n__m of action *n.* something that is regarded as usual, typical, or standard
216. di_____e prevention *n.* a disorder or illness that affects the body or mind, often characterized by specific symptoms or abnormal functioning of organs or systems
217. 3D hol_____hy *n.* a technique for creating three-dimensional images using lasers to record and reconstruct interference patterns

ANSWERS: 208. cubic, 209. analogy, 210. translucence, 211. functional, 212. glove, 213. resolve, 214. magnet, 215. norm, 216. disease, 217. holography

218. engineering spe_____ion *n.* a detailed description of the characteristics, features, or requirements of something, typically a product or system; a written statement that outlines the standards, procedures, or requirements for a project or job
219. su____r a setback *v.* to experience pain, distress, or hardship; to undergo or endure something painful or unpleasant
220. med_____on by mouth *n.* a drug or other form of medicine that treats, prevents, or alleviates the symptoms of the disease
221. pa_____t with weight loss *n.* a person who is receiving medical treatment, care, or attention from a healthcare professional, such as a doctor, nurse, or therapist; a personal quality or characteristic
222. excite the ne_____ns *n.* a cell that is specialized to carry information within the brain and between the brain and other parts of the body
223. surgical int_____ion *n.* the action or process of being done to improve or help a circumstance, often they have not been asked to do so
224. ease of com_____on *n.* the consideration or examination of the similarities between two or more people or things
225. ine_____ve option *adj.* costing little; having a low price
226. ho_____am technology *n.* a three-dimensional image produced by the interference of light beams from a laser or other coherent light sources used for artistic, scientific, or commercial applications

ANSWERS: 218. specification, 219. suffer, 220. medication, 221. patient, 222. neuron, 223. intervention, 224. comparison, 225. inexpensive, 226. hologram

227. loss of muscle ti___e *n.* an ensemble of similar cells of the animal or plant that together carry out a specific function
228. absolutely fa_____ic event *adj.* extremely good; excellent
229. so__c wave *adj.* connected with the nature of sound, sound waves, or the speed
230. bu__y material *adj.* taking up much space or being difficult to move because of its size or weight; large and unwieldy
231. ma___x multiplication *n.* a rectangular array of numbers, symbols, or expressions, arranged in rows and columns and often enclosed in brackets; an enclosure within which something originates or develops
232. ph___n energy *n.* a unit or quantum of electromagnetic energy, typically regarded as a particle that is the basic constituent of all light and other forms of electromagnetic radiation
233. an in_____ed lamp *adj.* relating to or denoting electromagnetic radiation with a wavelength just longer than that of red light but shorter than that of microwave radiation, used for sensing heat and for remote control
234. at so__c speed *adj.* connected with the nature of sound, sound waves, or the speed
235. a bac_____nd color *n.* the details of a person's social heritage, such as family, vocational or educational experience; past information that is essential to understanding a situation or problem

ANSWERS: 227. tissue, 228. fantastic, 229. sonic, 230. bulky, 231. matrix, 232. photon, 233. infrared, 234. sonic, 235. background

236. ci____t 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
237. ha__y arms *adj.* covered with hair or having a furry texture; difficult, dangerous, or complicated
238. new op____l glasses *adj.* of or relating to or light or the ability to see; (noun) the science of light and vision, and to instruments and techniques used in the study and application of light
239. st_____te the economy *v.* to encourage something to develop or become more active; to stir the feelings or emotions
240. the cabin pressure fell dra_____lly *adv.* in a very impressive manner
241. temporary me____l treatment *adj.* relating to the treatment of illness or injuries; relating to the practice of medicine
242. sp_____ht effect *n.* a beam of light used to illuminate a particular area or person
243. the characters that re_____nt numbers *v.* to speak, act, or be present on behalf of another person or group; to form or constitute
244. e__t air pollution *v.* to give off or send out something such as light, heat, sound, gas, etc.
245. gas fi____r *n.* any of several types of equipment or systems used to separate particles from liquids or gases or to remove specific forms of light

ANSWERS: 236. circuit, 237. hairy, 238. optical, 239. stimulate, 240. dramatically, 241. medical, 242. spotlight, 243. represent, 244. emit, 245. filter

246. dif_____on grating *n.* the bending of waves, particularly light or sound waves, as they pass through a small opening or around an obstacle, causing interference or the separation of the waves into distinct bands or zones
247. answer co_____ss questions *adj.* too numerous to be counted or very many
248. flow of el_____ons *n.* a tiny particle with the negative electrical charge
249. a st___e of the putter *n.* a medical condition in which poor blood flow to the brain causes cell death; the act of swinging or striking at a ball with a club, racket, etc.
250. thousands of po__ds *n.* the standard unit of money in the UK; the standard unit of weight equal to 16 ounces
251. sh___k with fear *v.* to become smaller, or to make something smaller in size or amount
252. im_____t genes in the animals *v.* to insert or fix an artificial device in a person's body; to put an idea, attitude, etc., firmly in the mind
253. clogged fi___r *n.* any of several types of equipment or systems used to separate particles from liquids or gases or to remove specific forms of light
254. sc_____r seeds *v.* to cause to separate and go in different directions
255. a ru_____e between friends *n.* a break or tear in something, especially a bodily tissue or a physical object

ANSWERS: 246. diffraction, 247. countless, 248. electron, 249. stroke, 250. pound, 251. shrink, 252. implant, 253. filter, 254. scatter, 255. rupture

256. sc__y story *adj.* causing fear or fright; frightening; intimidating
257. r_d the body of waste products *v.* to make someone or something free of unwanted or unpleasant tasks, objects, or person
258. ha__y situation *adj.* covered with hair or having a furry texture; difficult, dangerous, or complicated
259. ability to de___e the differences *v.* to convert something, such as a message or piece of information, from a specific form into one that you can understand
260. bre_____ugh discovery *n.* a sudden, dramatic, and important discovery or development that helps to improve a situation or provide an answer to a problem
261. st_____te the nervous system *v.* to encourage something to develop or become more active; to stir the feelings or emotions
262. em___e from poverty *v.* to move out of or away from something and become visible
263. three-fourths of a po__d *n.* the standard unit of money in the UK; the standard unit of weight equal to 16 ounces
264. the ru___e of a blood vessel *n.* a break or tear in something, especially a bodily tissue or a physical object
265. environmental det_____nt *n.* a factor, circumstance, or condition that contributes to the shaping, influencing, or determining of a particular outcome or result

ANSWERS: 256. scary, 257. rid, 258. hairy, 259. decode, 260. breakthrough, 261. stimulate, 262. emerge, 263. pound, 264. rupture, 265. determinant

266. op____l fiber *adj.* of or relating to or light or the ability to see; (noun) the science of light and vision, and to instruments and techniques used in the study and application of light
267. di____e control *n.* a disorder or illness that affects the body or mind, often characterized by specific symptoms or abnormal functioning of organs or systems
268. the professor of su____y *n.* medical treatment of injuries or diseases involving an incision with instruments and often removing or replacing some parts of the body; the branch of medical science that treats disease or injury by operative procedures
269. s__m chances *adj.* having a slender or thin build, often by design or effort; of small size, amount, or margin; reduced or limited
270. a glare of su____ht *n.* the light emitted by the sun; the rays of the sun
271. cu__c meter *adj.* having the shape of a cube or being of three dimensions; measured in units that are the third power of a linear unit
272. g__w a pale orange *v.* to give out a steady, strong light
273. r_v up the crowd *n.* a measure of the rate at which an engine or motor rotates, often expressed in revolutions per minute (RPM); (verb) to increase the number of rotations per minute

ANSWERS: 266. optical, 267. disease, 268. surgery, 269. slim, 270. sunlight, 271. cubic, 272. glow, 273. rev

274. a tip of the b__k *n.* the hard and pointed or curved mouse of a bird
275. s__n a document into PDF *v.* to examine something hastily, with the eyes or with a machine, to get information
276. co_____e a large of alcohol *v.* to spend something, especially fuel, energy, or time, in a large amount
277. classic arc_____ure *n.* the art and science of designing and constructing buildings
278. field of gene th_____y *n.* the act of caring for someone through medication, remedial training, etc.
279. pa_____t in the hospital *n.* a person who is receiving medical treatment, care, or attention from a healthcare professional, such as a doctor, nurse, or therapist; a personal quality or characteristic
280. st_____re and function of the brain *n.* the way of construction of something and the arrangement of its parts, or a complex thing constructed of many parts

ANSWERS: 274. beak, 275. scan, 276. consume, 277. architecture, 278. therapy, 279. patient, 280. structure

Session 3: Fill in the Blanks

1. The sun was setting, and the sky _____ with beautiful colors.
v. to give out a steady, strong light
2. The passenger grabbed for the _____ mask.
n. the chemical element with the symbol O that is present in air and water and is necessary for people, animals, and plants to live
3. The detective discovered that the witness had _____ her story about the crime.
v. to make something, especially by assembling parts or constructing it from raw materials; to invent and present something false as true or real to deceive someone
4. The MRI machine uses _____ to produce images of the body's internal organs.
n. an object or substance that can attract certain materials, such as iron or steel
5. The systems we have developed has accepted as industry _____.
n. something that is regarded as usual, typical, or standard
6. The project's _____ outlined the goals and requirements for the team to complete.
n. a detailed description of the characteristics, features, or requirements of something, typically a product or system; a written statement that outlines the standards, procedures, or requirements for a project or job
7. The _____ camera revealed a hidden image on the surface.
adj. relating to or denoting electromagnetic radiation with a wavelength just longer than that of red light but shorter than that of microwave radiation, used for sensing heat and for remote control

ANSWERS: 1. glowed, 2. oxygen, 3. fabricated, 4. magnets, 5. norms, 6. specifications, 7. infrared

8. The western sky was _____ pink.

adj. highly enthusiastic; greatly praised

9. There are _____ methods for dealing with stress.

adj. too numerous to be counted or very many

10. The package was a _____ shape, which made it easier to stack on the shelf.

adj. having the shape of a cube or being of three dimensions; measured in units that are the third power of a linear unit

11. Two countries acted together as if by _____.

adj. closely and firmly united or packed together, using very little space; smaller than is usual

12. That company has introduced a new aircraft that can minimize the generation of a _____ boom.

adj. connected with the nature of sound, sound waves, or the speed

13. 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

14. The company's hiring criteria emphasize personality, not a person's _____.

n. the details of a person's social heritage, such as family, vocational or educational experience; past information that is essential to understanding a situation or problem

15. He stepped on the gas pedal, and the engine released a loud ____.

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

ANSWERS: 8. glowing, 9. countless, 10. cubic, 11. compact, 12. sonic, 13. circuit, 14. background, 15. rev

16. I prefer _____ peanut butter over smooth peanut butter.

adj. characterized by being thick and heavy; containing or consisting of large, solid pieces; having a stocky, muscular build

17. This _____ does not require the patient's consent.

n. the action or process of being done to improve or help a circumstance, often they have not been asked to do so

18. The bird's _____ evolves according to the type of prey it can take on the area.

n. the hard and pointed or curved mouse of a bird

19. He moved his body _____ to the left.

adv. in a small degree or extent; a little

20. The flying car is presently in the _____ stage.

n. a first or preliminary example of something such as a device or vehicle from which other forms are developed

21. The car body scraped off with a _____.

n. the hard, slightly curved part that covers the outer tip of each finger

22. He found that it is difficult to _____ socially.

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

23. The hospital uses a strong _____ to clean the operating room after each surgery.

n. a substance used to destroy germs or bacteria on surfaces, often used in medical or cleaning settings

ANSWERS: 16. chunky, 17. intervention, 18. beak, 19. slightly, 20. prototype, 21. fingernail, 22. integrate, 23. disinfectant

24. Change is also occurring in Turkey as a result of _____ reform.

adj. without any order or organization; extremely disorganized, unpredictable, and confusing

25. The _____ team worked quickly to save the patient's life.

adj. relating to the treatment of illness or injuries; relating to the practice of medicine

26. The doctor will _____ a pacemaker to regulate his heart rate.

v. to insert or fix an artificial device in a person's body; to put an idea, attitude, etc., firmly in the mind

27. It is impolite to _____ fun of an international student's English mistakes.

v. to make fun of someone, usually by imitating them in a witty but harsh way

28. The _____ pattern of the light passing through the prism was a beautiful rainbow of colors.

n. the bending of waves, particularly light or sound waves, as they pass through a small opening or around an obstacle, causing interference or the separation of the waves into distinct bands or zones

29. This car has a _____ engine.

n. an imaginary creature that is large and has various human and animal parts; someone or something large and powerful

30. The sponge _____ water well.

v. to take in a fluid or other substance gradually

31. The government should not try to _____ the economy excessively based on a short-term prediction.

v. to make tiny changes or improvements to make it work as well as possible

ANSWERS: 24. chaotic, 25. medical, 26. implant, 27. mock, 28. diffraction, 29. monster, 30. absorbs, 31. fine-tune

32. The researchers try to discover a common _____ in all types of successful organizations.

n. one of several parts that combines with others to form something bigger

33. Necessity is the mother of _____.

n. the creation of a new device or process resulting from study and experimentation; the act of inventing

34. The doctor ordered an _____ to see if there was any damage to the bones.

n. a type of electromagnetic radiation that has a wavelength shorter than visible light allowing hidden objects such as bones and organs inside the body to be photographed

35. 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

36. _____ technology uses light interference patterns to create a 3D image.

n. a technique for creating three-dimensional images using lasers to record and reconstruct interference patterns

37. The recent economic downturn has resulted in _____ layoffs.

adj. enormous amount; very heavy and solid

38. She stood on the podium and _____ an audience.

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

39. The _____ for the conference was impressive and professional.

n. the arrangement or organization of something, often with a specific purpose or intention; a scheme or plan that is intended to deceive or trick someone

ANSWERS: 32. component, 33. invention, 34. X-ray, 35. disease, 36. Holography, 37. massive, 38. scanned, 39. setup

40. The Prime Minister will pay a courtesy visit to the Nobel laureate's ____.
- n.* a workplace for the conduct of scientific research; a laboratory
41. He performed his magic trick _____ leaving the audience in awe.
- adv.* onto or on a stage in a theater; in front of an audience
42. The outermost _____ shell determines the chemical properties of an atom.
- n.* a tiny particle with the negative electrical charge
43. Her voice gradually increased in _____.
- n.* the property of sound that varies with variation in the frequency of vibration; the degree of a slope, especially of a roof; short presentation for selling or sharing something
44. The ____ laptop was easy to carry around and perfect for travel.
- adj.* having a slender or thin build, often by design or effort; of small size, amount, or margin; reduced or limited
45. The doctor carefully examined the _____ medical history.
- n.* a person who is receiving medical treatment, care, or attention from a healthcare professional, such as a doctor, nurse, or therapist; a personal quality or characteristic
46. Dolphins use sound to _____ with each other.
- v.* to share or exchange information with others by speaking, writing, moving your body, or using other signals
47. This company _____ its battery problem completely.
- v.* to find a suitable answer to the problems or difficulty

ANSWERS: 40. lab, 41. onstage, 42. electron, 43. pitch, 44. slim, 45. patient's, 46. communicate, 47. resolves

48. Excessive parental interference may _____ children's eagerness to learn.
- v.* to prevent something, such as an action, process, etc., from happening or make it less likely to happen than normal
49. The car's front bumper cost fifteen hundred _____.
- n.* the standard unit of money in the UK; the standard unit of weight equal to 16 ounces
50. There was a disturbance of _____ function.
- adj.* of or relating to a nerve or the nervous system that includes the brain
51. Draw a circle five centimeters in _____.
- n.* the length of a straight line passing through the center of a circle and connecting two points on the circumference
52. The new rescue dog was covered in thick, _____ fur that kept him warm in cold weather.
- adj.* covered with hair or having a furry texture; difficult, dangerous, or complicated
53. The _____ of numbers on the spreadsheet allowed the accountant to track the company's profits and losses easily.
- n.* a rectangular array of numbers, symbols, or expressions, arranged in rows and columns and often enclosed in brackets; an enclosure within which something originates or develops
54. The computer screen comprises thousands of tiny _____ that create the overall picture.
- n.* the smallest unit of an image that can be displayed or manipulated electronically, typically a point of light on a computer screen or in a digital image

ANSWERS: 48. inhibit, 49. pounds, 50. neural, 51. diameter, 52. hairy, 53. matrix, 54. pixels

55. The sun's _____ shone through the window and illuminated the room.
- n.* a long, sturdy piece of timber, metal, or other material used to support a structure or span a distance; a ray or stream of light emitted by a source
56. Anesthetize the gum before _____ the teeth.
- n.* a short passage taken from a book, piece of music, etc.; a substance obtained from something through a specific process; (verb) to obtain from something or to remove something by effort or force
57. One _____ of success is having a positive attitude and a strong work ethic.
- n.* a factor, circumstance, or condition that contributes to the shaping, influencing, or determining of a particular outcome or result
58. This remote _____ is rarely visited.
- n.* a particular location or place; a small round or roundish area, differing in color or feels from the surface around it
59. Some comic book characters are considered gay _____.
- n.* a picture or statue of a holy person considered to be a sacred thing; a little icon on the screen of a computer or smartphone that denotes an application or a file
60. A smaller car will _____ less fuel.
- v.* to spend something, especially fuel, energy, or time, in a large amount
61. The _____ machine uses powerful magnets to produce detailed images of the inside of the body.
- n.* (abbreviation for magnetic resonance imaging) a medical imaging technique that uses a strong magnetic field and radio waves to produce detailed images of the inside of the body

ANSWERS: 55. beam, 56. extracting, 57. determinant, 58. spot, 59. icons, 60. consume, 61. MRI

62. The book _____ my imagination.

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

63. During colonial eras, new migratory patterns _____.

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

64. A technique called deep learning has led to _____ in AI.

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

65. The pharmacist not only prescribes the _____ but also guides its proper use.

- n.* a drug or other form of medicine that treats, prevents, or alleviates the symptoms of the disease

66. The restaurant offered delicious food at an _____ price.

- adj.* costing little; having a low price

67. We got lost in the _____ of streets while exploring the city.

- n.* a complex network of winding passages or pathways designed as a puzzle or challenge for people to navigate through

68. The company holds patents on core components of _____ jet printers.

- n.* a device that emits powerful and narrow light that can be used as a tool to cut metal through a process of optical amplification

69. The entire mountain is covered in _____ rainforest.

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

ANSWERS: 62. stimulated, 63. emerged, 64. breakthroughs, 65. medication, 66. inexpensive, 67. maze, 68. laser, 69. dense

70. The _____ disease can spread quickly and potentially cause a global pandemic.

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

71. The width of a single human hair is around 100 _____.

n. a unit of measurement equal to one-millionth of a meter, used for measuring the size of particles and microorganisms

72. Radiation from _____ has a different wavelength.

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

73. A fault line _____ can cause significant damage and destruction to surrounding areas.

n. a break or tear in something, especially a bodily tissue or a physical object

74. The news of her promotion _____ her.

v. to make someone feel suddenly enthusiastic or eager

75. The floor was made of white and black _____ arranged in a checkerboard pattern.

n. a hard crystalline metamorphic rock that has a pattern of lines going through it and takes a high polish used for sculpture and as building material; a small ball made of stone, especially one used in children's games

76. During the surgery, the doctor had to be extremely cautious not to _____ a blood vessel.

v. to harm or cause injury to something or someone, often resulting in decreased value or functionality; to impair or negatively affect something, such as a reputation or relationship; (noun) harm or injury that is caused to a person, thing, or entity

ANSWERS: 70. invasive, 71. microns, 72. sunlight, 73. rupture, 74. excited, 75. marble, 76. damage

77. This year's extreme heat has resulted in many heat _____ cases.

- n.* a medical condition in which poor blood flow to the brain causes cell death; the act of swinging or striking at a ball with a club, racket, etc.

78. I was able to _____ the moment on film.

- v.* to catch a person or an animal and confine them in an area which they cannot escape

79. The software could _____ the encrypted data and reveal the hidden information.

- v.* to convert something, such as a message or piece of information, from a specific form into one that you can understand

80. The _____ temperature recorded this summer was higher than average.

- adj.* the largest or greatest amount or value attainable or attained

81. The artist used the _____ of the glass to create a beautiful stained-glass window.

- n.* the quality of being translucent; the ability of a material to allow light to pass through but not clearly enough to distinguish objects on the other side

82. 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

83. Jet _____ are the common name for air currents that form high in the atmosphere.

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

ANSWERS: 77. stroke, 78. capture, 79. decode, 80. maximum, 81. translucence, 82. develop, 83. streams

84. He narrated the _____ story of his adventure.

adj. exceptional, unexpected, very unusual; surpassing the ordinary or usual

85. The patient was diagnosed with a _____ in her lung.

n. a mass of diseased tissue that forms when cells in the body divide and grow in an uncontrolled way

86. She was hospitalized with a severe case of _____.

n. an infection or inflammation of the lungs, typically caused by bacteria, viruses, or other microorganisms

87. The police officer fired a warning shot that _____ off the pavement and hit a nearby car.

v. to rebound or deflect off a surface at an angle or series of angles, changing direction multiple times; to have a sudden and unintended effect or outcome; (noun) the motion of an object or a projectile that is deflected off a surface

88. Infrared cameras detect _____ in the infrared range of the electromagnetic spectrum.

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

89. Could you help me _____ some furniture?

n. a slight transition in position, direction, or trend

90. During the unloading, the container box _____ a clicking sound.

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

91. The drain was _____ with hair and needed to be cleaned out.

v. to obstruct or block up (a passage, pipe, or system) with an accumulation of thick or sticky matter; to impede or hinder the progress or movement of something

ANSWERS: 84. extraordinary, 85. tumor, 86. pneumonia, 87. ricocheted, 88. photons, 89. shift, 90. emits, 91. clogged

92. I've included the two designs for a _____.

- n.* the consideration or examination of the similarities between two or more people or things

93. 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

94. This shirt will _____ in the wash.

- v.* to become smaller, or to make something smaller in size or amount

95. The city is known for its impressive _____ and beautiful old buildings.

- n.* the art and science of designing and constructing buildings

96. The hunter's approach _____ the geese.

- v.* to cause to separate and go in different directions

97. The museum had a _____ exhibit that was very popular with visitors.

- n.* a three-dimensional image produced by the interference of light beams from a laser or other coherent light sources used for artistic, scientific, or commercial applications

98. The security camera has _____ four intruders.

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

99. The singer was in the _____ as she performed her hit song.

- n.* a beam of light used to illuminate a particular area or person

100. She was wearing a black _____.

- n.* a piece of clothing worn on the hand and wrist for protection against cold, dirt, etc., with separate parts for each finger

ANSWERS: 92. comparison, 93. brain, 94. shrink, 95. architecture, 96. scattered, 97. hologram, 98. detected, 99. spotlight, 100. glove

101. The researcher separated the nervous _____ for microscopic examinations.
n. an ensemble of similar cells of the animal or plant that together carry out a specific function
102. The golfer recorded an _____ distance.
adj. extremely surprising, especially in a way that you like or admire
103. The _____ illusion made it appear like the building was floating in midair.
adj. of or relating to or light or the ability to see; (noun) the science of light and vision, and to instruments and techniques used in the study and application of light
104. Ozone is a primary _____ to protect Earth's surface from harmful UV rays.
n. any of several types of equipment or systems used to separate particles from liquids or gases or to remove specific forms of light
105. Gamma _____ penetrate body tissues and cause cell damage.
n. a narrow line of light, heat, or another form of energy
106. One light year is nearly 6 _____ miles.
n. the number 1,000,000,000,000; a million million
107. 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
108. I underwent aversion _____ for my addiction to alcohol.
n. the act of caring for someone through medication, remedial training, etc.

ANSWERS: 101. tissue, 102. amazing, 103. optical, 104. filter, 105. rays, 106. trillion, 107. chip, 108. therapy

109. We must ____ ourselves of pollution.

- v.* to make someone or something free of unwanted or unpleasant tasks, objects, or person

110. He studied the _____ of radiation.

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

111. The _____ furniture made it difficult to move around the small room.

- adj.* taking up much space or being difficult to move because of its size or weight; large and unwieldy

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

- adj.* extremely good; excellent

113. He has terminal _____ cancer.

- n.* either of the two organs in the chest that people and some animals use for breathing

114. The sunlight shone through the _____ curtains, casting a warm glow in the room.

- adj.* allowing light to pass through but scattering it so that objects behind cannot be seen clearly; partially transparent

115. The _____ of the fruit is sweet and juicy.

- n.* the soft substance composing the body of a person or animal, as opposed to bones and other structures

116. We need to _____ our products in an attractive way to attract customers.

- v.* to exhibit or show something to others, often to attract attention or demonstrate its features, properties, or value

ANSWERS: 109. rid, 110. physics, 111. bulky, 112. fantastic, 113. lung, 114. translucent, 115. flesh, 116. display

117. They will _____ between various emotional states.

v. to cause to move up or away after hitting a surface; to spring back

118. The police placed a _____ across the street to halt traffic.

n. a fence or other obstruction that makes it hard to move or get in; any condition that makes it difficult to make progress or to achieve an objective

119. Breast _____ is the most common type of cancer in women.

n. abnormal growth of cells that can invade and destroy surrounding tissues and organs; a disease characterized by the uncontrolled growth and spread of abnormal cells

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

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

121. The lump was discovered to be _____ and no further treatment was needed.

adj. kind and gentle; not harmful or malicious

122. Life expectancy has grown _____ this century.

adv. in a very impressive manner

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

adv. at the same time

124. We elected him to _____ us at the international conference.

v. to speak, act, or be present on behalf of another person or group; to form or constitute

ANSWERS: 117. bounce, 118. barrier, 119. cancer, 120. Gamma, 121. benign, 122. dramatically, 123. simultaneously, 124. represent

125. She holds a _____ on Tuesday mornings.

n. a building or hospital department where people can go for medical care or advice, especially of a particular condition

126. Archaeologists found a Neanderthal _____ at that historic site.

n. a bone framework that surrounds the brain and gives the head its shape

127. Continuous consumption of fatty foods leads to the hardening of the _____.

n. one of the thick tubes in humans and most other animals that takes blood away from the heart to one or more parts of the body such as tissues, lungs, brain, etc.

128. Shakespeare's output of poetry was _____.

adj. extremely large or great

129. The computer's hard _____ was full, so she had to delete some files.

n. a flat, circular plate, typically made of metal, glass, or plastic, used for storing data or playing music

130. The mobile phone was still _____ even after being dropped.

adj. designed for or capable of a particular activity, purpose, or task; practical or ready for use or service

131. Our body transfers information along each _____ using an electrical impulse.

n. a cell that is specialized to carry information within the brain and between the brain and other parts of the body

132. The horror movie was so _____ that I couldn't watch it alone.

adj. causing fear or fright; frightening; intimidating

ANSWERS: 125. clinic, 126. skull, 127. artery, 128. enormous, 129. disk, 130. functional, 131. neuron, 132. scary

133. 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
134. The organizational _____ of start-ups is often flat and straightforward.
n. the way of construction of something and the arrangement of its parts, or a complex thing constructed of many parts
135. He had undergone heart _____ years before.
n. medical treatment of injuries or diseases involving an incision with instruments and often removing or replacing some parts of the body; the branch of medical science that treats disease or injury by operative procedures
136. Eventually, the new design will _____ all older models.
v. to take the place of something
137. The penny fell _____ the piano.
adv. under or below something else
138. He _____ the game so he could win the prize.
v. to prepare or set up something in a certain way, typically in a carefully planned or fraudulent manner; to equip with sails or masts
139. The _____ crew quickly stabilized the patient before transporting them to the hospital.
n. a vehicle specifically designed and equipped to transport sick or injured people to and from hospitals and other medical facilities
140. The older man _____ from arthritis and finds it difficult to move around.
v. to experience pain, distress, or hardship; to undergo or endure something painful or unpleasant

ANSWERS: 133. analogy, 134. structure, 135. surgery, 136. replace, 137. underneath, 138. rigged, 139. ambulance, 140. suffers

ANSWERS: