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Karen Lloyd: This deep-sea mystery is changing our understanding of life | TED Talk

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

All Words

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Session 1: Word List

microbiology

n. the study of microorganisms, including bacteria, viruses, fungi, and algae, and their role in various fields such as medicine, agriculture, and the environment

(1) a specialist in **microbiology**, (2) **microbiology** laboratory

The field of **microbiology** includes the study of bacteria, fungi, viruses, and other microorganisms.

microbe

n. a tiny living thing that can only be seen with a microscope and that may cause disease

synonym: germ, microorganism, bacterium

(1) pathogenic **microbe**, (2) **microbes** sterilizer

Microbes thrive on the surface of the human skin.

assume

v. to think or accept something to be true without having proof of it; to take or begin to have power; to begin to exhibit a specific quality or appearance

synonym: guess, presume, suppose

(1) **assume** a lousy attitude to his boss, (2) **assume** an important role

The following example **assumes** that the capacity of each battery is the same.

submarine

n. a type of underwater vehicle or vessel that can operate beneath the surface of the water; (adjective) beneath the surface of the sea

synonym : sub, underwater vessel, sea-craft

(1) a **submarine** volcano, (2) **submarine** cable

The military **submarine** disappeared without a trace.

exciting

adj. causing a lot of interest or excitement

synonym : exhilarating, stimulating, thrilling

(1) **exciting** football player, (2) **exciting** news

The findings of the experiment were both **exciting** and unexpected.

mud

n. a soft, wet, sticky earth or clay

synonym : muck, sludge, ooze

(1) **mud** wall, (2) **mud** volcano

The **mud** of the swamp made it difficult to walk through the field.

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.

similarly

adv. in almost the same way

synonym : also, likewise, ditto

(1) **similarly** situated, (2) have **similarly** great abilities

We argue that wages for temporary workers should **similarly** rise.

obsess

v. to fill the mind of someone continually so that one can't think of anything else

synonym : torment, beset, engross

(1) **obsess** over her weight, (2) he is **obsessed** with the fear

He's utterly **obsessed** with his promotion.

crazy

adj. stupid or not sensible; very angry

synonym: insane, absurd, bizarre

(1) **crazy** about cars and racing, (2) a **crazy** scheme

The rain and thunder are **crazy** today.

vast

adj. enormous in size, number, amount, or quantity

synonym: expansive, extended, boundless

(1) **vast** majority, (2) **vast** desert

A **vast** audience viewed the broadcast.

biosphere

n. the part of the Earth and its atmosphere in which living organisms exist, including plants, animals, and microorganisms

synonym: ecosphere, ecospace, ecosystem

(1) terrestrial **biosphere**, (2) artificial **biosphere**

The balance of the **biosphere** is crucial for the survival of species.

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.

extend

v. to broaden in scope, range, or area

synonym: prolong, lengthen, advance

(1) **extend** the warranty, (2) **extend** a line

Her visit will **extend** from Monday to Friday.

seafloor

n. the bottom of the ocean

synonym: ocean floor, benthic zone, abyssal plain

(1) **seafloor** exploration, (2) **seafloor** mapping

The oceanographer studied the **seafloor** topography to understand how it had changed over time.

sediment

n. the substance that forms a solid layer at the bottom of the liquid

synonym: deposition, residue

(1) **sediment** runoff, (2) gravel **sediment**

Heavy rain often washes away **sediments** of the river.

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.

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.

delivery

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

synonym: sending, transporting, bringing

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

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

biology

n. the scientific study of life and the natural processes of living things

(1) evolutionary **biology**, (2) cell and molecular **biology**

In junior high school, we had to dissect a frog in **biology** class.

convinced

adj. completely certain about something; having a strong belief or conviction in a particular religion

synonym: confident, positive, indoctrinated

(1) **convinced** of the idea, (2) **convinced** criminal

The public is **convinced** that the prime minister has committed fraud.

expedition

n. a journey or voyage for a specific purpose

synonym : journey, trip, voyage

(1) **expedition** team, (2) a polar **expedition**

The **expedition** to the Amazon jungle was both exciting and challenging.

drill

n. a tool or machine used for making round holes or driving fasteners; a training or practice

synonym : exercise, routine, training

(1) the **drill** hit the well, (2) fire **drill**

Several military **drill** programs have become popular methods of exercise.

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.

bark

n. the hard outer layer of a tree; a sound made by dogs or some other animals

synonym : skin, husk, crust

(1) trees with rough **bark**, (2) **bark** at the moon

He removed the **bark** from the tree.

pristine

adj. new and completely free from dirt or contamination

synonym : chaste, pure, immaculate

(1) **pristine** beach, (2) maintain the **pristine** condition

It is terrific to camp in **pristine** nature.

subsurface

adj. situated or located beneath the surface of something; existing or occurring within the deeper layers of a material or object, often referring to areas below the Earth's surface

synonym : beneath the surface, underground, subterranean

(1) **subsurface** mining, (2) **subsurface** oil reserves
The **subsurface** layers of the ocean are still largely unexplored.

contamination

n. the presence of something harmful or unwanted in a substance, material, or environment; the act of introducing harmful substances or materials into an environment or area

synonym: pollution, defilement, infection

(1) **contamination** levels, (2) soil **contamination**
The **contamination** of the water supply led to widespread illness in the community.

sequence

n. a series of related events, actions, numbers, etc., which have a particular order

synonym: arrangement, succession, series

(1) the **sequence** of the seasons, (2) the DNA **sequence**
We do move forward with those tasks in **sequence** next week.

core

n. the most essential or fundamental part of something

synonym: center, basis, heart

(1) the **core** of an apple, (2) **core** business activity
These gas nebulas are merely newborn galactic **cores**.

process

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

synonym: procedure, method, system

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

laboratory

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

synonym : lab, workshop, testing room

(1) **laboratory** accident, (2) anthropology **laboratory**

Animal protection groups call for an end to animal testing in a **laboratory**.

colleague

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

synonym : coworker, associate, fellow

(1) collaborate with **colleagues**, (2) former **colleague**

I decided to seek counseling on the advice of my **colleague**.

precious

adj. uncommon and extremely valuable

synonym : adored, cherished, valued

(1) price of **precious** metals, (2) **precious** information

We cannot afford to squander **precious** time.

microscope

n. an instrument used to see objects or substances that are too small to be seen with the naked eye

synonym : lens, magnifier, eyepiece

(1) **microscope** slide, (2) electron **microscope**

I used an optical **microscope** to observe the small organisms in the water sample.

hazy

adj. not clear due to a lack of recollection, comprehension, or detail; unsure or perplexed about something

synonym : blurred, clouded, foggy

(1) **hazy** dream, (2) **hazy** atmosphere

My memories of the holiday were **hazy**.

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**.

- dot** *n.* a very small circular mark, especially one that is printed
synonym : drop, dab, fleck
(1) connecting the **dots**, (2) **dot** blot method
The wallpaper had a pattern of pink **dots** on a white surface.
- stain** *v.* to discolor, defile, or tarnish something; (noun) a discoloration or dirty mark on a surface that is difficult to remove
synonym : discolor, tarnish, defile
(1) **stain** the carpet, (2) red wine **stain**
The allegations of corruption **stained** her reputation, and she struggled to regain public trust.
- fluorescent** *adj.* emitting or reflecting vibrant and vivid light, especially under ultraviolet light; describing a type of lamp or bulb that produces such light
synonym : luminescent, phosphorescent, radiant
(1) **fluorescent** bulb, (2) **fluorescent** material
The office installed new **fluorescent** lighting to save energy.
- dye** *v.* to color a textile or hair by immersing it in a colored liquid or substance
synonym : color, tint, stain
(1) **dye** a T-shirt red, (2) **dye** patterns
She **dyed** her hair purple for a change.
- tragic** *adj.* causing great sadness or suffering; very unfortunate
synonym : calamitous, disastrous, catastrophic
(1) **tragic** love stories, (2) **tragic** death
The **tragic** events of the war left many families torn apart.
- approximate** *adj.* nearly accurate or correct, but not completely so
synonym : rough, close, near
(1) linear **approximate** equation, (2) **approximate** time
The **approximate** cost of the project was estimated to be around \$500,000.

fascinating

adj. extremely interesting

synonym : alluring, intriguing, captivating

(1) **fascinating** story, (2) completely **fascinating** to me

The museum houses a **fascinating** collection of Celtic artifacts.

uranium

n. a chemical element with the symbol U, atomic number 92, that is a dense, silvery-white metal that is radioactive and is used as a fuel for nuclear power plants

synonym : U

(1) **uranium** mining, (2) radioactive **uranium** isotope

The mining and processing of **uranium** can lead to releasing radioactive materials into the environment.

rocket

n. a large tube-shaped object that moves very fast by a stream of gases let out behind it, used for space travel or as a weapon

synonym : projectile, missile

(1) **rocket** attack against the enemy, (2) **rocket** fuel

The **rocket** launch platform is visible from this hill.

fuel

n. a substance that is typically burned to generate heat or energy

synonym : energy, power, gas

(1) biomass **fuel**, (2) smokeless **fuel**

The **fuel** scarcity most severely impacted the manufacturing sector

annoying

adj. making someone feel slightly angry

synonym : aggravating, bothersome, irksome

(1) **annoying** banner ad, (2) **annoying** habit

The phone call is an **annoying** interruption.

fingerprint

n. a unique pattern of ridges and valleys on the surface of a finger that can be used to identify a person

synonym : print, mark, impression

(1) **fingerprint** at a crime scene, (2) **fingerprint**

identification

The police used a **fingerprint** scanner to identify the suspect.

illustrate

v. to provide pictures, photographs, diagrams, etc. in a book or something for explanation

synonym: demonstrate, explain, exemplify

(1) **illustrate** a key point, (2) **illustrate** a story

The company's financial records **illustrate** how successful it has been.

bunch

n. a grouping of several similar things which are growing or fastened together

synonym: group, assemblage, bundle

(1) a **bunch** of trees, (2) a **bunch** of schoolgirls

One bad apple spoils the whole **bunch**.

relate

v. to establish a connection or association between two or more things; to narrate or tell about an event, experience, or relationship; to empathize or feel sympathy with someone or something

synonym: connect, link, associate

(1) **relate** a story, (2) **relate** a message

He tried to **relate** his experience to the group, but they couldn't understand.

combination

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

synonym: blend, hybrid, compounding

(1) genic **combinations**, (2) **combination** number

The **combination** to the safe was a secret.

random

adj. made, done, or happening without method, conscious decision, or any regular pattern

synonym: incidental, arbitrary, unanticipated

(1) a **random** choice, (2) bombs fell at **random**

To find drunk drivers, police conduct **random** tests.

jumble

v. to mix or mingle various items, objects, or ideas together in a disordered or confused way, often resulting in a messy or chaotic situation; to create a disorderly or confusing arrangement of things

synonym: mix, scramble, mess up

(1) **jumble** in some herbs and spices, (2) **jumble** together different colors

The children **jumbled** up the puzzle pieces and had to start over.

unrelated

adj. having no connection; not belonging to the kinship

synonym: irrelevant, unconnected, independent

(1) statistically **unrelated**, (2) an **unrelated** position

Excuse me if my question is **unrelated** to the topic.

vertical

adj. upright or perpendicular to a horizontal surface or line

synonym: perpendicular, upright, plumb

(1) **vertical** takeoff, (2) **vertical** axis

The ladder leaned against the **vertical** surface of the building.

column

n. one of the vertical blocks that split content on a page or screen from top to bottom; an upright pillar that often supports an arch, entablature, or other structure or stands alone as a monument

synonym: line, pillar, cue

(1) the spinal **column**, (2) a **column** of water

The newspaper devoted several **columns** to the affair.

infinitesimal

adj. extremely small or tiny; almost negligible in size or quantity

synonym: tiny, minuscule, microscopic

(1) **infinitesimal** variation, (2) **infinitesimal** change

The scientist used an **infinitesimal** amount of the compound in their experiment.

ancestor

n. a person from whom one is descended; a forefather
synonym: forebear, forefather, progenitor

(1) **ancestor** language, (2) earliest human **ancestor**

My remote **ancestor** immigrated to the United States from Ireland in the 1800s.

relative

adj. considered and evaluated through comparison with something else

synonym: comparative, proximate, congeneric

(1) a remote **relative**, (2) **relative** factors

Most countries prohibit sexual activity between certain close **relatives**.

chimpanzee

n. a small, very intelligent ape found in west and central Africa with black or brown fur

synonym: ape, chimp, pan troglodytes

(1) **chimpanzee** behavior, (2) **chimpanzee** society

Many zoos have **chimpanzee** exhibits, allowing visitors to observe these intelligent primates up close.

obvious

adj. easy to see, discover or understand

synonym: apparent, conspicuous, evident

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

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

gastrointestinal

adj. relating to the stomach and intestines, particularly about the digestive system or related disorders

synonym: digestive, intestinal, stomach

(1) **gastrointestinal** disorders, (2) **gastrointestinal** symptoms

Certain foods can cause **gastrointestinal** problems if eaten in excess.

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.

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.

hike

n. a long walk or journey, especially for pleasure or exercise; an increase in cost

synonym: walk, trek, excursion

(1) go on a **hike**, (2) a **hike** in prices

The family decided to **hike** in the mountains to enjoy the beautiful scenery.

bacteria

n. single-celled or noncellular spherical or spiral or rod-shaped organisms that exist in large numbers in the air, water, and soil, and also in living and dead creatures and plants, and are often a cause of disease

synonym: microorganism, microbe

(1) pathogenic **bacteria**, (2) harmless **bacteria**

Bacteria prevalent in hospitals are often resistant to antibiotics.

coli

n. a bacterium of the genus *Escherichia* that is commonly found in the human gut and is used as a model organism in molecular biology and biochemistry

(1) E. **coli** bacteria strain, (2) **coli** cells

The study of *Escherichia coli* has led to important advancements in areas such as antibiotic resistance, gut

microbiome, and synthetic biology.

difficile

n. a bacterium of the genus *Clostridium* that can cause severe diarrhea, particularly in a hospital or nursing home settings; a disease caused by this bacterium; (adjective) difficult or hard to do, understand, or deal with

(1) *Clostridioides* **difficile**, (2) **difficile** to understand
My grandmother was hospitalized due to a severe *Clostridium* **difficile** infection, which required several rounds of antibiotics and careful monitoring by the medical staff.

horrible

adj. extremely unpleasant or bad; causing fear or disgust
synonym: dreadful, terrible, awful

(1) **horrible** accident, (2) **horrible** smell
The experience was **horrible** and left a lasting impression.

opportunistic

adj. making use of a current situation to get power or advantage, especially regardless of planning or principle
synonym: timeserving, conciliatory

(1) **opportunistic** fungus, (2) **opportunistic** behavior
Many of the party's members joined for simply **opportunistic** reasons.

pathogen

n. a bacterium, virus, or other microorganism that causes disease

synonym: germ, microbe, bacterium

(1) plant **pathogen**, (2) the **pathogen** in the air
mRNA vaccines are approved faster because they do not contain inactivated **pathogens**.

ethnography

n. the study of social groups and cultures, often conducted through observation, interviews, and analysis of primary sources; a written account of such a study

synonym: anthropology, cultural analysis

(1) **ethnography** research, (2) **ethnography** methods
The book is a rich and detailed **ethnography** of the cultural

practices of a group of people.

industrial

adj. of or relating to or resulting from industry

synonym : manufacturing, mechanical

(1) beginning of the **industrial** revolution, (2) **industrial** alcohol

Industrial design has become more focused on human nature aspect than ever before.

glance

v. to give a quick or brief look; to hit something at an angle

synonym : glimpse, peek, flash

(1) **glance** around nervously, (2) **glance** at him miserably
I casually **glanced** into the small hut.

sibling

n. a brother or sister; member of a family born to the same parents

synonym : brother, sister, relative

(1) have a **sibling** quarrel, (2) play with my **siblings**
Children often copy their parents or elder **siblings**.

ancient

adj. relating to the long ago, particularly the historical period preceding the fall of the Western Roman Empire; very old

synonym : archaic, age-old, obsolete

(1) pre-Christian **ancient**, (2) **ancient** stories

They have been living near water since **ancient** times.

cousin

n. the child of your aunt or uncle

synonym : relative

(1) cross- **cousin** marriage, (2) **cousin's** family

I used to play with my younger male **cousins** when I was a little girl.

kinship

n. the state or fact of being related to someone

synonym : family, relationship, connection

(1) **kinship** ties, (2) **kinship** relations

She felt a sense of **kinship** with her new colleagues.

basis

n. the most important facts, ideas, or events from which something is developed; the way how things are organized or arranged

synonym: foundation, base, ground

(1) on an equal **basis**, (2) **basis** for calculation

This evidence will form the **basis** for our discussion.

cruise

n. a voyage on a large ship for pleasure; driving or traveling at a leisurely pace

synonym: sail, voyage, journey

(1) the **cruise** line, (2) adaptive **cruise** control

The family took a **cruise** to the Caribbean for their vacation.

discovery

n. the act or process of finding information, a place, or an object, or learning about something that was previously not known

synonym: finding, uncovering, detection

(1) a scientific **discovery**, (2) the great **discovery** of the century

Her research team made an important **discovery**.

alien

n. a person who comes from a different country, race, or group; a form of life assumed to exist outside the Earth or its atmosphere

synonym: foreigner, unfamiliar, unknown

(1) **alien** fungi, (2) resident **aliens**

Alien species have drastically altered the ecosystem in this area.

diverse

adj. including numerous categories of individuals or entities; various

synonym: manifold, various, myriad

(1) **diverse** backgrounds, (2) a person of **diverse** talents

New York is a city with a **diverse** ethnic population.

ecosystem

n. all the plants and living creatures in an area and the way they affect each other and the environment

(1) marine **ecosystem**, (2) change the **ecosystem**

Human conservation efforts often fail unexpectedly because they disturb the balance of the **ecosystem**.

roll

v. to move in a particular direction by turning over and over or from side to side

synonym: spin, swirl, wheel

(1) **roll** a ball, (2) **roll** down his cheeks

He was exhausted and **rolled** into bed as soon as he got home.

exotic

adj. originating from or characteristic of a foreign country or culture; strikingly unusual, uncommon, or intriguing

synonym: foreign, alien, unfamiliar

(1) **exotic** species, (2) **exotic** vacation

I love trying **exotic** foods from different cultures.

petri

n. (petri dish) a small, clear, and round dish with a lid used in laboratories, especially for growing bacteria

(1) **petri** dish test, (2) bacteria on **petri** dishes

Glass **petri** dishes are used to culture microorganisms.

experiment

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

synonym: experimentation, investigation

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

His **experiments** showed highly positive results.

suppose

v. to think that something is likely to be actual or possible

synonym: guess, assume, presume

(1) **suppose** you're right, (2) **suppose** beforehand

What do you **suppose** the culprit's motive was?

refuse

v. to show that one is not willing to do or accept something

synonym: turn down, deny, decline

(1) **refuse** a request, (2) **refuse** the company
My initial reaction was to **refuse**.

disappoint

v. to fail to meet someone or their hopes or expectations;
to make someone feel sad

synonym: sadden, dismay, frustrate

(1) **disappoint** the audience, (2) don't **disappoint** me
She worked very hard not to **disappoint** her boss's
expectations.

exhilarating

adj. making one feel very happy and lively; invigorating;
providing a feeling of excitement or thrill

synonym: thrilling, exciting, stimulating

(1) an **exhilarating** drink, (2) **exhilarating** view
Bungee jumping was an **exhilarating** experience that left me
shaking with adrenaline.

tantalize

v. to tease or torment by presenting something desirable
but out of reach or unattainable; to tempt or lure with the
promise of something desirable

synonym: tease, tempt, torment

(1) **tantalize** taste buds, (2) **tantalize** with promises
The smell of freshly baked cookies in the kitchen **tantalized**
me.

recipe

n. a set of instructions for preparing a dish, including the
ingredients and the method of cooking

synonym: instructions, formula, method

(1) **recipe** book, (2) **recipe** collection
The **recipe** for the cake is passed down from generation to
generation in her family.

combine

v. to join or merge to form a single thing or group

synonym: coalesce, cohere, blend

(1) **combine** chemically with another substance,
(2) **combine** augmented reality

Hydrogen and oxygen **combine** to form water.

amend

v. to change a text, law, statement, etc., slightly to remove faults or errors or to improve it

synonym: improve, correct, alter

(1) **amend** a law, (2) **amend** his writing

The president agreed to **amend** the ill-defined regulations.

calculate

v. to judge or find out the amount or number of something by using mathematics

synonym: compute, figure, estimate

(1) **calculate** the distance, (2) **calculate** his credit score

He couldn't **calculate** the actual value of the artwork.

watt

n. a standard unit for measuring electrical power

(1) 30- **watt** light bulb, (2) **watt** per square meter

Several hectares of land are needed to generate more than 1-mega **watt** solar power.

zeptosecond

n. a unit of time equal to one trillionth of one billionth of a second (10^{-21} seconds), which is one of the smallest known units of time measurement

(1) **zeptosecond** time, (2) **zeptosecond** range

Currently, no scientific evidence or technology is capable of measuring time intervals at the **zeptosecond** level.

minus

adj. subtracting or taking away; having a value less than zero

synonym: without, lacking, negative

(1) **minus** sign, (2) **minus** temperature

The recipe calls for four cups of flour **minus** one tablespoon.

humming

adj. producing a continuous, low, vibrating sound like that of the bee

synonym: buzzing, droning, vibrating

(1) **humming** sound, (2) **humming** bird

The **humming** of the bees filled the air as she walked through the garden.

pineapple

n. tropical fruit with a rough, spiky exterior and sweet, juicy flesh inside, often used in cooking, baking, or as a snack

synonym : ananas, tropical fruit, bromeliad

(1) ripe **pineapple**, (2) canned **pineapple**

I love to eat fresh **pineapple** in my fruit salad.

waist

n. the part of the human body between the ribs and hips or the corresponding part in other animals

synonym : midriff, torso, abdomen

(1) **waist** measurement, (2) a slim **waist**

She cinched her dress at the **waist** to accentuate her hourglass figure.

turbine

n. a machine that rotates to generate power from fluids such as water or gas

synonym : engine, generator, power plant

(1) **turbine** energy, (2) **turbine** aerofoil

The wind **turbines** were spinning rapidly, generating clean energy for the nearby town.

grain

n. wheat or any other small hard seeds used as a food; a relatively small granular particle of a substance

synonym : seed, piece, cereal

(1) a **grain** of sand, (2) flour made from **grain**

Ordinary air purifiers cannot adequately remove pollen **grains**.

mass

n. a large amount of a substance with no definite shape or form; a large number of people or things grouped or crowded together

synonym : abundance, crowd, mob

(1) a **mass** of molten rock, (2) critical **mass**

The **mass** of people who do not own property is politically

impotent.

nanoscale

adj. on a scale that can be measured in nanometres (= one billionth of a meter); on a very small scale

(1) **nanoscale** device, (2) things at the **nanoscale**

This process improves the strength of the metal by controlling the **nanoscale** lattice structure of the metal.

wavelength

n. the distance between two points in the same phase in consecutive cycles of a wave

(1) **wavelength** of light, (2) long- **wavelength** laser

White color is made up of many different **wavelengths** of light.

visible

adj. capable of being seen; or open to easy view

synonym: clear, observable, seeable

(1) **visible** stars, (2) **visible** by X-ray

My home is easily **visible** from the shore.

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.

relation

n. the way two persons or groups of people feel and act toward one another

synonym: association, linkage, connection

(1) **relation** between cause and effect, (2) **relation** of inclusion

The industrial **relations** laws were passed with little to no alteration.

gradient

n. the degree or rate of incline or decline along a physical or abstract line; a gradual progression

synonym: slope, incline, grade

(1) **gradient** descent, (2) economic **gradient**

The road's **gradient** was steep, making it challenging for cyclists.

colonize

v. to establish a colony in or on a specific place; to settle or occupy in large numbers

synonym: settle, occupy, inhabit

(1) **colonize** planets, (2) **colonize** for cultivation

European powers **colonized** much of the Americas in the 16th and 17th centuries.

streptococcus

n. a genus of bacteria that includes many species, some of which can cause a wide range of infections in humans and animals, including strep throat, pneumonia, and skin infections

synonym: bacteria, germs, microbes

(1) **streptococcus** infection, (2) group A **streptococcus**

Streptococcus mutans is a type of bacteria that can cause tooth decay.

division

n. the act or outcome of splitting into separate parts; a critical organizational unit or sector

synonym: branch, separator, section

(1) cellular **division**, (2) **division** chief

Which **division** of the company do you work in?

asset

n. something or someone that is useful or valuable quality, skill, etc.; valuable property

synonym: aid, resource, equity

(1) frozen **assets**, (2) liquid **assets** of the company

A sense of humor is an invaluable **asset** in this job.

overgrown

adj. covered in plants that have been allowed to grow naturally and have not been controlled

synonym: leafy, lush, verdant

(1) an **overgrown** garden, (2) **overgrown** child

The wooden gate had been damaged, and the hedge had become **overgrown**.

weed

n. a wild plant growing where it is not wanted and in competition with cultivated plants

synonym : plant, grass, shrub

(1) pull up a **weed**, (2) **weed** management

The garden was full of **weeds** that needed to be pulled.

chemical

adj. relating to or connected with chemistry;

synonym : chemic, synthetic

(1) toxic **chemicals**, (2) a **chemical** compound

The firm has grown into a large **chemical** manufacturing.

nutrient

n. any substance that is essential for the maintenance and growth of living things

synonym : food, vitamin

(1) **nutrient** medicine, (2) a **nutrient** for hair

They used fast-acting **nutrients** on the flowers in the flower beds.

mimic

v. to imitate someone's speech, movement, or behavior, especially to make others laugh

synonym : mirror, imitate, ape

(1) **mimic** a human voice, (2) **mimic** numerous instruments

He is very popular at school because he can **mimic** all the teachers' accents.

contaminate

v. to make something impure, unclean, or poisonous by contact or mixture

synonym : defile, pollute, adulterate

(1) **contaminate** with a disease, (2) **contaminate** his ego

We strive not to **contaminate** the environment when demolishing petroleum plants.

arbitrary

adj. based on chance, or individual whim rather than any reason

synonym : autocratic, dictatorial, whimsical

(1) **arbitrary** size and shape, (2) the **arbitrary** rule of a dictator

He collected data to avoid **arbitrary** decisions.

universe

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

synonym : cosmos, macrocosm

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

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

dictate

v. to state or give order with total authority; to say or read aloud for somebody else to write down or to be recorded

synonym : read out, prescribe, order

(1) **dictate** a letter to secretary, (2) **dictate** to the associate

The allies **dictated** the terms of surrender to the country.

harness

v. to control and exploit the power of something, especially natural resources that produce energy; (noun) a set of narrow pieces of leather and metal that are used to control or hold in place a person, animal, or object

synonym : rein in, control, (noun) belt

(1) **harness** a horse to a carriage, (2) put a **harness** on my pet

People have been exploring ways to **harness** natural forces and resources since ancient times.

photosynthesis

n. the process through which plants and other organisms transform light energy into chemical energy, which is then released through cellular respiration to power the organism's activities.

(1) oxygenic **photosynthesis**, (2) process of **photosynthesis**

In **photosynthesis**, plants use carbon dioxide to feed

themselves.

cycle

n. an interval during which a recurring sequence of events occurs; a bicycle or motorcycle

synonym: revolution, rotation, bike

(1) the **cycle** of the seasons, (2) go to the workplace by **cycle**

The food chain causes a material **cycle**.

circulatory

adj. relating to the system that moves blood through the body, which includes the heart, arteries, and veins

synonym: circulative, rotating

(1) a **circulatory** disease, (2) cause **circulatory** failure shock

The **circulatory** system of the animal is also responsible for heat transportation.

disconnect

v. to unfasten or disjoin something, especially to break the connection between a supply of gas, water, or electricity and a piece of equipment

synonym: unplug, detach, take apart

(1) **disconnect** a plug, (2) **disconnect** the water supply

She finally decided to **disconnect** herself from the company.

geology

n. a science that deals with the history of the earth as recorded in rocks

synonym: earth science

(1) bureau of **geology**, (2) local **geology**

He was a visiting **geology** professor at the University of Tokyo.

rhythm

n. a strong regular repeated pattern of sounds, words, or musical notes that are used in music, poetry, and dancing

synonym: beat, cadence, tempo

(1) in samba **rhythm**, (2) irregular heart **rhythm**

He beat out a jazz **rhythm** on the cajones.

theoretical

adj. relating to the concepts and principles upon which a particular topic is founded, rather than practice and experience

synonym : conceptual, conjectural, ideal

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

Absolute zero is the lowest **theoretical** temperature.

lifespan

n. the length of time for which a person, animal lives, or thing exists

synonym : duration, lifetime, continuance

(1) **lifespan** extension, (2) **lifespan** retrieval curve

Generally speaking, men have a shorter **lifespan** than women.

exploit

v. to make full use of and gain an advantage from resources, opportunities, etc.

synonym : use, abuse, control

(1) **exploit** a security hole, (2) **exploit** a valuable opportunity

We **exploit** our mining resources to strengthen our national power.

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.

adapt

v. to make fit for or change to suit a new purpose or environment

synonym : adjust, acclimate, accustom

(1) **adapt** fully to the environment, (2) **adapt** as needed

I advised him to **adapt** to his new surroundings.

frenetic

adj. frenzied, fast-paced, and full of energy or activity; characterized by intense and chaotic busyness or agitation

synonym : frenzied, hyperactive, violent

(1) **frenetic** dancing, (2) **frenetic** energy

The **frenetic** pace of the city can be overwhelming for some people.

involve

v. to include or affect someone or something as a necessary part of something else

synonym: implicate, include, engage

(1) **involve** a lot of paperwork, (2) **involve** a high degree of risk

The investigation **involves** several government agencies and is expected to take several months.

stable

adj. firm and steady; not easily moved, disturbed, or changed

synonym: sturdy, unmoving, durable

(1) in **stable** condition, (2) have a **stable** job

Relations between the two countries have been relatively **stable** due to the summit meeting.

compound

n. an item composed of two or more distinct elements combined; a chemical formed by the combination of two or more elements

synonym: combination, mixture, blend

(1) aquatic **compound**, (2) harmful **compound**

Common salt is a sodium and chlorine **compound**.

biomedical

adj. relating to the application of the natural sciences, especially biology, and physiology, to clinical medicine and healthcare

synonym: medical, clinical, health-related

(1) **biomedical** assay, (2) cutting-edge **biomedical**

Biomedical engineering focuses on developing new medical technologies and innovations to improve patient health outcomes.

mechanism

n. a part of a machine, or a set of parts that performs a task; a natural or established process that occurs during

a specific situation or reaction

synonym: means, method, system

(1) the **mechanism** for DNA replication, (2) defense **mechanism**

He discovered unique **mechanisms** for photochemical reactions.

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.

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.

speculate

v. to form a theory or conjecture or guess about a subject without solid evidence

synonym: assume, conjecture, infer

(1) **speculate** about the reason, (2) **speculate** on the outcome

He **speculated** that this investment would lead to success.

underlying

adj. significant as a cause or basis of something but not immediately apparent or stated clearly

synonym: fundamental, latent, basic

(1) an **underlying** motive, (2) an **underlying** cause of an accident

The **underlying** principle of every business was identical.

biomass

n. the total quantity of living matter in a given unit of environment, including plants, animals, and

microorganisms

(1) **biomass** energy, (2) fuel **biomass**

The **biomass** in a forest can be measured by collecting and weighing all living plants within a specific area.

planet

n. any of the nine large celestial bodies that circle in the solar system; any celestial body that revolves around a star

synonym : earth, world, globe

(1) **planet** like the Earth, (2) save the **planet**

Mercury is the closest **planet** to the sun.

fundamental

adj. forming an essential base or core from which everything else develops or is affected

synonym : basic, essential, entire

(1) **fundamental** education, (2) **fundamental** rights

Human behavior has **fundamental** characteristics.

damn

v. to express disapproval of or disappointment in something or someone; to condemn or to curse; (a swear word) an expression of anger

synonym : curse, condemn, denounce

(1) **damn** the consequences, (2) **damn** with faint praise

The company's poor financial performance is likely to **damn** the CEO's chances of being re-elected to the board.

creative

adj. relating to or involving the use of skill and original and unusual ideas to create something

synonym : imaginative, innovative, inventive

(1) **creative** writing, (2) barren of **creative** spirit

All the supervisor has to do is assign tasks that make his subordinates more **creative**.

Session 2: Spelling

- | | |
|------------------------------------|---|
| 1. pathogenic mi_____e | <i>n.</i> a tiny living thing that can only be seen with a microscope and that may cause disease |
| 2. gr_____nt descent | <i>n.</i> the degree or rate of incline or decline along a physical or abstract line; a gradual progression |
| 3. fin_____nt at a crime scene | <i>n.</i> a unique pattern of ridges and valleys on the surface of a finger that can be used to identify a person |
| 4. a m__s of molten rock | <i>n.</i> a large amount of a substance with no definite shape or form; a large number of people or things grouped or crowded together |
| 5. ex___d a line | <i>v.</i> to broaden in scope, range, or area |
| 6. irregular heart rh___m | <i>n.</i> a strong regular repeated pattern of sounds, words, or musical notes that are used in music, poetry, and dancing |
| 7. the cr___e line | <i>n.</i> a voyage on a large ship for pleasure; driving or traveling at a leisurely pace |
| 8. lab_____ry accident | <i>n.</i> a workplace for doing scientific research or teaching science; a lab |
| 9. b__k at the moon | <i>n.</i> the hard outer layer of a tree; a sound made by dogs or some other animals |
| 10. a cr__y scheme | <i>adj.</i> stupid or not sensible; very angry |
| 11. ha_____s a horse to a carriage | <i>v.</i> to control and exploit the power of something, especially natural resources that produce energy; (noun) a set of narrow pieces of leather and metal that are used to control or hold in place a person, animal, or object |

ANSWERS: 1. microbe, 2. gradient, 3. fingerprint, 4. mass, 5. extend, 6. rhythm, 7. cruise, 8. laboratory, 9. bark, 10. crazy, 11. harness

12. co_____e augmented reality *v.* to join or merge to form a single thing or group
13. ho_____le smell *adj.* extremely unpleasant or bad; causing fear or disgust
14. evolutionary bi_____y *n.* the scientific study of life and the natural processes of living things
15. a bu__h of trees *n.* a grouping of several similar things which are growing or fastened together
16. dis_____ct the water supply *v.* to unfasten or disjoin something, especially to break the connection between a supply of gas, water, or electricity and a piece of equipment
17. the great di_____ry of the century *n.* the act or process of finding information, a place, or an object, or learning about something that was previously not known
18. con_____ion levels *n.* the presence of something harmful or unwanted in a substance, material, or environment; the act of introducing harmful substances or materials into an environment or area
19. group A str_____cus *n.* a genus of bacteria that includes many species, some of which can cause a wide range of infections in humans and animals, including strep throat, pneumonia, and skin infections
20. wav_____th of light *n.* the distance between two points in the same phase in consecutive cycles of a wave

ANSWERS: 12. combine, 13. horrible, 14. biology, 15. bunch, 16. disconnect, 17. discovery, 18. contamination, 19. streptococcus, 20. wavelength

21. d_e patterns *v.* to color a textile or hair by immersing it in a colored liquid or substance
22. 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
23. re_____on between cause and effect *n.* the way two persons or groups of people feel and act toward one another
24. app_____te time *adj.* nearly accurate or correct, but not completely so
25. st__n the carpet *v.* to discolor, defile, or tarnish something; (noun) a discoloration or dirty mark on a surface that is difficult to remove
26. di_____e backgrounds *adj.* including numerous categories of individuals or entities; various
27. an und_____ng motive *adj.* significant as a cause or basis of something but not immediately apparent or stated clearly
28. local ge_____y *n.* a science that deals with the history of the earth as recorded in rocks
29. se_____nt runoff *n.* the substance that forms a solid layer at the bottom of the liquid
30. co_____ed criminal *adj.* completely certain about something; having a strong belief or conviction in a particular religion
31. a co_____n of water *n.* one of the vertical blocks that split content on a page or screen from top to bottom; an upright pillar that often supports an arch, entablature, or other structure or stands alone as a monument

ANSWERS: 21. dye, 22. determinant, 23. relation, 24. approximate, 25. stain, 26. diverse, 27. underlying, 28. geology, 29. sediment, 30. convinced, 31. column

32. a polar exp_____on
n. a journey or voyage for a specific purpose
33. the_____al physicist
adj. relating to the concepts and principles upon which a particular topic is founded, rather than practice and experience
34. barren of cr_____ve spirit
adj. relating to or involving the use of skill and original and unusual ideas to create something
35. co_____ze for cultivation
v. to establish a colony in or on a specific place; to settle or occupy in large numbers
36. earliest human an_____or
n. a person from whom one is descended; a forefather
37. in st_____e condition
adj. firm and steady; not easily moved, disturbed, or changed
38. ta_____ze taste buds
v. to tease or torment by presenting something desirable but out of reach or unattainable; to tempt or lure with the promise of something desirable
39. tr____c love stories
adj. causing great sadness or suffering; very unfortunate
40. ba__s for calculation
n. the most important facts, ideas, or events from which something is developed; the way how things are organized or arranged
41. radioactive ur_____m isotope
n. a chemical element with the symbol U, atomic number 92, that is a dense, silvery-white metal that is radioactive and is used as a fuel for nuclear power plants

ANSWERS: 32. expedition, 33. theoretical, 34. creative, 35. colonize, 36. ancestor, 37. stable, 38. tantalize, 39. tragic, 40. basis, 41. uranium

42. an easy de____ry *n.* the act of taking or sending something to a destination; the bringing of a baby during childbirth
43. se____or exploration *n.* the bottom of the ocean
44. have si_____ly great abilities *adv.* in almost the same way
45. the me_____sm for DNA replication *n.* a part of a machine, or a set of parts that performs a task; a natural or established process that occurs during a specific situation or reaction
46. 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
47. flu_____nt material *adj.* emitting or reflecting vibrant and vivid light, especially under ultraviolet light; describing a type of lamp or bulb that produces such light
48. mi__c a human voice *v.* to imitate someone's speech, movement, or behavior, especially to make others laugh
49. pe__i dish test *n.* (petri dish) a small, clear, and round dish with a lid used in laboratories, especially for growing bacteria
50. d_t blot method *n.* a very small circular mark, especially one that is printed
51. anthropology lab_____ry *n.* a workplace for doing scientific research or teaching science; a lab
52. ve_____al axis *adj.* upright or perpendicular to a horizontal surface or line

ANSWERS: 42. delivery, 43. seafloor, 44. similarly, 45. mechanism, 46. disease, 47. fluorescent, 48. mimic, 49. petri, 50. dot, 51. laboratory, 52. vertical

53. am__d his writing *v.* to change a text, law, statement, etc., slightly to remove faults or errors or to improve it
54. cellular di____on *n.* the act or outcome of splitting into separate parts; a critical organizational unit or sector
55. exp_____nt design *n.* the scientific test conducted to observe what happens and gain new knowledge
56. an exh_____ing drink *adj.* making one feel very happy and lively; invigorating; providing a feeling of excitement or thrill
57. a remote re____ve *adj.* considered and evaluated through comparison with something else
58. terrestrial bi_____re *n.* the part of the Earth and its atmosphere in which living organisms exist, including plants, animals, and microorganisms
59. process of pho_____sis *n.* the process through which plants and other organisms transform light energy into chemical energy, which is then released through cellular respiration to power the organism's activities.
60. biomass f__l *n.* a substance that is typically burned to generate heat or energy
61. fuel bi_____s *n.* the total quantity of living matter in a given unit of environment, including plants, animals, and microorganisms
62. nu____nt medicine *n.* any substance that is essential for the maintenance and growth of living things

ANSWERS: 53. amend, 54. division, 55. experiment, 56. exhilarating, 57. relative, 58. biosphere, 59. photosynthesis, 60. fuel, 61. biomass, 62. nutrient

63. se_____or mapping *n.* the bottom of the ocean
64. adaptive cr___e control *n.* a voyage on a large ship for pleasure; driving or traveling at a leisurely pace
65. al__n fungi *n.* a person who comes from a different country, race, or group; a form of life assumed to exist outside the Earth or its atmosphere
66. dis_____ct a plug *v.* to unfasten or disjoin something, especially to break the connection between a supply of gas, water, or electricity and a piece of equipment
67. ex_____t a security hole *v.* to make full use of and gain an advantage from resources, opportunities, etc.
68. fas_____ng story *adj.* extremely interesting
69. und_____th the surface of the water *adv.* under or below something else
70. re_____e a dispute *v.* to find a suitable answer to the problems or difficulty
71. com_____on number *n.* a collection of things that have been combined; an assemblage of separate parts or qualities
72. flour made from gr__n *n.* wheat or any other small hard seeds used as a food; a relatively small granular particle of a substance
73. the dr__l hit the well *n.* a tool or machine used for making round holes or driving fasteners; a training or practice

ANSWERS: 63. seafloor, 64. cruise, 65. alien, 66. disconnect, 67. exploit, 68. fascinating, 69. underneath, 70. resolve, 71. combination, 72. grain, 73. drill

74. re_____e the computer error *v.* to find a suitable answer to the problems or difficulty
75. exp_____on team *n.* a journey or voyage for a specific purpose
76. Clostridioides di_____le *n.* a bacterium of the genus Clostridium that can cause severe diarrhea, particularly in a hospital or nursing home settings; a disease caused by this bacterium; (adjective) difficult or hard to do, understand, or deal with
77. play with my si_____gs *n.* a brother or sister; member of a family born to the same parents
78. fin_____nt identification *n.* a unique pattern of ridges and valleys on the surface of a finger that can be used to identify a person
79. am_____g advances *adj.* extremely surprising, especially in a way that you like or admire
80. str_____cus infection *n.* a genus of bacteria that includes many species, some of which can cause a wide range of infections in humans and animals, including strep throat, pneumonia, and skin infections
81. beginning of the ind_____al revolution *adj.* of or relating to or resulting from industry
82. gl___e around nervously *v.* to give a quick or brief look; to hit something at an angle
83. plant pa_____en *n.* a bacterium, virus, or other microorganism that causes disease
84. special de_____ry *n.* the act of taking or sending something to a destination; the bringing of a baby during childbirth

ANSWERS: 74. resolve, 75. expedition, 76. difficile, 77. sibling, 78. fingerprint, 79. amazing, 80. streptococcus, 81. industrial, 82. glance, 83. pathogen, 84. delivery

85. canned pi_____le *n.* tropical fruit with a rough, spiky exterior and sweet, juicy flesh inside, often used in cooking, baking, or as a snack
86. ex_____t a valuable opportunity *v.* to make full use of and gain an advantage from resources, opportunities, etc.
87. m_d wall *n.* a soft, wet, sticky earth or clay
88. pr_____us information *adj.* uncommon and extremely valuable
89. re___e book *n.* a set of instructions for preparing a dish, including the ingredients and the method of cooking
90. c__i cells *n.* a bacterium of the genus Escherichia that is commonly found in the human gut and is used as a model organism in molecular biology and biochemistry
91. an ov_____wn garden *adj.* covered in plants that have been allowed to grow naturally and have not been controlled
92. a ra___m choice *adj.* made, done, or happening without method, conscious decision, or any regular pattern
93. don't dis_____nt me *v.* to fail to meet someone or their hopes or expectations; to make someone feel sad
94. genic com_____ons *n.* a collection of things that have been combined; an assemblage of separate parts or qualities
95. oxygenic pho_____sis *n.* the process through which plants and other organisms transform light energy into chemical energy, which is then released through cellular respiration to power the organism's activities.

ANSWERS: 85. pineapple, 86. exploit, 87. mud, 88. precious, 89. recipe, 90. coli, 91. overgrown, 92. random, 93. disappoint, 94. combination, 95. photosynthesis

96. mic_____ogy laboratory *n.* the study of microorganisms, including bacteria, viruses, fungi, and algae, and their role in various fields such as medicine, agriculture, and the environment
97. change the ec_____em *n.* all the plants and living creatures in an area and the way they affect each other and the environment
98. pl____t like the Earth *n.* any of the nine large celestial bodies that circle in the solar system; any celestial body that revolves around a star
99. bureau of ge_____y *n.* a science that deals with the history of the earth as recorded in rocks
100. as____e a lousy attitude to his boss *v.* to think or accept something to be true without having proof of it; to take or begin to have power; to begin to exhibit a specific quality or appearance
101. con_____te his ego *v.* to make something impure, unclean, or poisonous by contact or mixture
102. go to the workplace by cy__e *n.* an interval during which a recurring sequence of events occurs; a bicycle or motorcycle
103. li_____an retrieval curve *n.* the length of time for which a person, animal lives, or thing exists
104. ki_____p relations *n.* the state or fact of being related to someone
105. ta_____ze with promises *v.* to tease or torment by presenting something desirable but out of reach or unattainable; to tempt or lure with the promise of something desirable

ANSWERS: 96. microbiology, 97. ecosystem, 98. planet, 99. geology, 100. assume, 101. contaminate, 102. cycle, 103. lifespan, 104. kinship, 105. tantalize

106. d__n the consequences *v.* to express disapproval of or disappointment in something or someone; to condemn or to curse; (a swear word) an expression of anger
107. fr____ic energy *adj.* frenzied, fast-paced, and full of energy or activity; characterized by intense and chaotic busyness or agitation
108. tr___c death *adj.* causing great sadness or suffering; very unfortunate
109. his conclusion was ob____s *adj.* easy to see, discover or understand
110. ro___t fuel *n.* a large tube-shaped object that moves very fast by a stream of gases let out behind it, used for space travel or as a weapon
111. ill_____te a story *v.* to provide pictures, photographs, diagrams, etc. in a book or something for explanation
112. mic_____pe slide *n.* an instrument used to see objects or substances that are too small to be seen with the naked eye
113. chi_____ee behavior *n.* a small, very intelligent ape found in west and central Africa with black or brown fur
114. cutting-edge bio_____al *adj.* relating to the application of the natural sciences, especially biology, and physiology, to clinical medicine and healthcare
115. flu_____nt bulb *adj.* emitting or reflecting vibrant and vivid light, especially under ultraviolet light; describing a type of lamp or bulb that produces such light

ANSWERS: 106. damn, 107. frenetic, 108. tragic, 109. obvious, 110. rocket, 111. illustrate, 112. microscope, 113. chimpanzee, 114. biomedical, 115. fluorescent

116. electron mic_____pe *n.* an instrument used to see objects or substances that are too small to be seen with the naked eye
117. re_____on of inclusion *n.* the way two persons or groups of people feel and act toward one another
118. h__y dream *adj.* not clear due to a lack of recollection, comprehension, or detail; unsure or perplexed about something
119. ar_____ry size and shape *adj.* based on chance, or individual whim rather than any reason
120. wa__t measurement *n.* the part of the human body between the ribs and hips or the corresponding part in other animals
121. pr_____ne beach *adj.* new and completely free from dirt or contamination
122. re_____e a phone *v.* to take the place of something
123. 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
124. the cy__e of the seasons *n.* an interval during which a recurring sequence of events occurs; a bicycle or motorcycle
125. an und_____ng cause of an accident *adj.* significant as a cause or basis of something but not immediately apparent or stated clearly
126. artificial bi_____re *n.* the part of the Earth and its atmosphere in which living organisms exist, including plants, animals, and microorganisms

ANSWERS: 116. microscope, 117. relation, 118. hazy, 119. arbitrary, 120. waist, 121. pristine, 122. replace, 123. background, 124. cycle, 125. underlying, 126. biosphere

127. h__y atmosphere *adj.* not clear due to a lack of recollection, comprehension, or detail; unsure or perplexed about something
128. the ar_____ry rule of a dictator *adj.* based on chance, or individual whim rather than any reason
129. pre-Christian an_____t *adj.* relating to the long ago, particularly the historical period preceding the fall of the Western Roman Empire; very old
130. a ch_____al compound *adj.* relating to or connected with chemistry;
131. ov_____wn child *adj.* covered in plants that have been allowed to grow naturally and have not been controlled
132. tu_____e energy *n.* a machine that rotates to generate power from fluids such as water or gas
133. ad__t as needed *v.* to make fit for or change to suit a new purpose or environment
134. an_____ng habit *adj.* making someone feel slightly angry
135. hu_____g bird *adj.* producing a continuous, low, vibrating sound like that of the bee
136. cause cir_____ry failure shock *adj.* relating to the system that moves blood through the body, which includes the heart, arteries, and veins
137. ob_____s reasons *adj.* easy to see, discover or understand
138. 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

ANSWERS: 127. hazy, 128. arbitrary, 129. ancient, 130. chemical, 131. overgrown, 132. turbine, 133. adapt, 134. annoying, 135. humming, 136. circulatory, 137. obvious, 138. oxygen

139. the c__e of an apple *n.* the most essential or fundamental part of something
140. sp_____te on the outcome *v.* to form a theory or conjecture or guess about a subject without solid evidence
141. critical m__s *n.* a large amount of a substance with no definite shape or form; a large number of people or things grouped or crowded together
142. opp_____tic behavior *adj.* making use of a current situation to get power or advantage, especially regardless of planning or principle
143. things at the na_____le *adj.* on a scale that can be measured in nanometres (= one billionth of a meter); on a very small scale
144. co_____e chemically with another substance *v.* to join or merge to form a single thing or group
145. ca_____te the distance *v.* to judge or find out the amount or number of something by using mathematics
146. he is ob___sed with the fear *v.* to fill the mind of someone continually so that one can't think of anything else
147. co_____ze planets *v.* to establish a colony in or on a specific place; to settle or occupy in large numbers
148. pull up a w__d *n.* a wild plant growing where it is not wanted and in competition with cultivated plants
149. ad__t fully to the environment *v.* to make fit for or change to suit a new purpose or environment

ANSWERS: 139. core, 140. speculate, 141. mass, 142. opportunistic, 143. nanoscale, 144. combine, 145. calculate, 146. obsess, 147. colonize, 148. weed, 149. adapt

150. ca_____te his credit score *v.* to judge or find out the amount or number of something by using mathematics
151. li_____an extension *n.* the length of time for which a person, animal lives, or thing exists
152. ho_____le accident *adj.* extremely unpleasant or bad; causing fear or disgust
153. cr__y about cars and racing *adj.* stupid or not sensible; very angry
154. re___e a story *v.* to establish a connection or association between two or more things; to narrate or tell about an event, experience, or relationship; to empathize or feel sympathy with someone or something
155. gas_____nal disorders *adj.* relating to the stomach and intestines, particularly about the digestive system or related disorders
156. environmental det_____nt *n.* a factor, circumstance, or condition that contributes to the shaping, influencing, or determining of a particular outcome or result
157. w__t per square meter *n.* a standard unit for measuring electrical power
158. inf_____mal variation *adj.* extremely small or tiny; almost negligible in size or quantity
159. bi_____s energy *n.* the total quantity of living matter in a given unit of environment, including plants, animals, and microorganisms
160. statistically un_____ed *adj.* having no connection; not belonging to the kinship

ANSWERS: 150. calculate, 151. lifespan, 152. horrible, 153. crazy, 154. relate, 155. gastrointestinal, 156. determinant, 157. watt, 158. infinitesimal, 159. biomass, 160. unrelated

161. di____e to the associate *v.* to state or give order with total authority; to say or read aloud for somebody else to write down or to be recorded
162. a gr__n of sand *n.* wheat or any other small hard seeds used as a food; a relatively small granular particle of a substance
163. am__d a law *v.* to change a text, law, statement, etc., slightly to remove faults or errors or to improve it
164. re___e a request *v.* to show that one is not willing to do or accept something
165. red wine st__n *v.* to discolor, defile, or tarnish something; (noun) a discoloration or dirty mark on a surface that is difficult to remove
166. a cir____ry disease *adj.* relating to the system that moves blood through the body, which includes the heart, arteries, and veins
167. cell and molecular bi____y *n.* the scientific study of life and the natural processes of living things
168. ext____ary weather *adj.* exceptional, unexpected, very unusual; surpassing the ordinary or usual
169. di____on chief *n.* the act or outcome of splitting into separate parts; a critical organizational unit or sector
170. in direct su____ht *n.* the light emitted by the sun; the rays of the sun
171. ur____m mining *n.* a chemical element with the symbol U, atomic number 92, that is a dense, silvery-white metal that is radioactive and is used as a fuel for nuclear power plants

ANSWERS: 161. dictate, 162. grain, 163. amend, 164. refuse, 165. stain, 166. circulatory, 167. biology, 168. extraordinary, 169. division, 170. sunlight, 171. uranium

172. v__t majority *adj.* enormous in size, number, amount, or quantity
173. vi____e stars *adj.* capable of being seen; or open to easy view
174. resident al__ns *n.* a person who comes from a different country, race, or group; a form of life assumed to exist outside the Earth or its atmosphere
175. mi__s sign *adj.* subtracting or taking away; having a value less than zero
176. bacteria on pe__i dishes *n.* (petri dish) a small, clear, and round dish with a lid used in laboratories, especially for growing bacteria
177. re____e collection *n.* a set of instructions for preparing a dish, including the ingredients and the method of cooking
178. fr____ic dancing *adj.* frenzied, fast-paced, and full of energy or activity; characterized by intense and chaotic busyness or agitation
179. cr____ve writing *adj.* relating to or involving the use of skill and original and unusual ideas to create something
180. 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
181. an____ng banner ad *adj.* making someone feel slightly angry
182. ki____p ties *n.* the state or fact of being related to someone

ANSWERS: 172. vast, 173. visible, 174. alien, 175. minus, 176. petri, 177. recipe, 178. frenetic, 179. creative, 180. cancer, 181. annoying, 182. kinship

183. su____e beforehand *v.* to think that something is likely to be actual or possible
184. harmful co____nd *n.* an item composed of two or more distinct elements combined; a chemical formed by the combination of two or more elements
185. a glare of su____ht *n.* the light emitted by the sun; the rays of the sun
186. na____le device *adj.* on a scale that can be measured in nanometres (= one billionth of a meter); on a very small scale
187. mi__c numerous instruments *v.* to imitate someone's speech, movement, or behavior, especially to make others laugh
188. 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
189. 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
190. opp____tic fungus *adj.* making use of a current situation to get power or advantage, especially regardless of planning or principle
191. frozen as__ts *n.* something or someone that is useful or valuable quality, skill, etc.; valuable property

ANSWERS: 183. suppose, 184. compound, 185. sunlight, 186. nanoscale, 187. mimic, 188. filter, 189. background, 190. opportunistic, 191. asset

192. go on a h__e *n.* a long walk or journey, especially for pleasure or exercise; an increase in cost
193. und_____th the laughter *adv.* under or below something else
194. put a ha_____s on my pet *v.* to control and exploit the power of something, especially natural resources that produce energy; (noun) a set of narrow pieces of leather and metal that are used to control or hold in place a person, animal, or object
195. si_____ly situated *adv.* in almost the same way
196. expansion of the un_____se *n.* everything that exists, especially all physical matter, including planets, stars, galaxies, and all other forms of matter and energy
197. harmless ba_____ia *n.* single-celled or noncellular spherical or spiral or rod-shaped organisms that exist in large numbers in the air, water, and soil, and also in living and dead creatures and plants, and are often a cause of disease
198. a bu__h of schoolgirls *n.* a grouping of several similar things which are growing or fastened together
199. fun_____al rights *adj.* forming an essential base or core from which everything else develops or is affected
200. ex_____ng football player *adj.* causing a lot of interest or excitement
201. series of exp_____nts *n.* the scientific test conducted to observe what happens and gain new knowledge

ANSWERS: 192. hike, 193. underneath, 194. harness, 195. similarly, 196. universe, 197. bacteria, 198. bunch, 199. fundamental, 200. exciting, 201. experiment

202. a h__e in prices *n.* a long walk or journey, especially for pleasure or exercise; an increase in cost
203. sp_____te about the reason *v.* to form a theory or conjecture or guess about a subject without solid evidence
204. r__l a ball *v.* to move in a particular direction by turning over and over or from side to side
205. ob___s over her weight *v.* to fill the mind of someone continually so that one can't think of anything else
206. E. c__i bacteria strain *n.* a bacterium of the genus Escherichia that is commonly found in the human gut and is used as a model organism in molecular biology and biochemistry
207. inf_____mal change *adj.* extremely small or tiny; almost negligible in size or quantity
208. di_____le to understand *n.* a bacterium of the genus Clostridium that can cause severe diarrhea, particularly in a hospital or nursing home settings; a disease caused by this bacterium; (adjective) difficult or hard to do, understand, or deal with
209. su_____e you're right *v.* to think that something is likely to be actual or possible
210. a su_____ne volcano *n.* a type of underwater vehicle or vessel that can operate beneath the surface of the water; (adjective) beneath the surface of the sea
211. marine ec_____em *n.* all the plants and living creatures in an area and the way they affect each other and the environment

ANSWERS: 202. hike, 203. speculate, 204. roll, 205. obsess, 206. coli, 207. infinitesimal, 208. difficile, 209. suppose, 210. submarine, 211. ecosystem

212. vi____e by X-ray *adj.* capable of being seen; or open to easy view
213. gl___e at him miserably *v.* to give a quick or brief look; to hit something at an angle
214. bombs fell at ra___m *adj.* made, done, or happening without method, conscious decision, or any regular pattern
215. eth____hy research *n.* the study of social groups and cultures, often conducted through observation, interviews, and analysis of primary sources; a written account of such a study
216. w__d management *n.* a wild plant growing where it is not wanted and in competition with cultivated plants
217. economic gr____nt *n.* the degree or rate of incline or decline along a physical or abstract line; a gradual progression
218. connecting the d_ts *n.* a very small circular mark, especially one that is printed
219. a person of di____e talents *adj.* including numerous categories of individuals or entities; various
220. ext____ary ability *adj.* exceptional, unexpected, very unusual; surpassing the ordinary or usual
221. 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
222. sub____ce mining *adj.* situated or located beneath the surface of something; existing or occurring within the deeper layers of a material or object, often referring to areas below the Earth's surface

ANSWERS: 212. visible, 213. glance, 214. random, 215. ethnography, 216. weed, 217. gradient, 218. dot, 219. diverse, 220. extraordinary, 221. oxygen, 222. subsurface

223. former co_____ue *n.* one of a group of a coworker, especially in a profession or a business
224. theory of the un_____se *n.* everything that exists, especially all physical matter, including planets, stars, galaxies, and all other forms of matter and energy
225. cross-co____n marriage *n.* the child of your aunt or uncle
226. the DNA se_____ce *n.* a series of related events, actions, numbers, etc., which have a particular order
227. mi__s temperature *adj.* subtracting or taking away; having a value less than zero
228. maintain the pr_____ne condition *adj.* new and completely free from dirt or contamination
229. d_e a T-shirt red *v.* to color a textile or hair by immersing it in a colored liquid or substance
230. ju____e in some herbs and spices *v.* to mix or mingle various items, objects, or ideas together in a disordered or confused way, often resulting in a messy or chaotic situation; to create a disorderly or confusing arrangement of things
231. the_____al models *adj.* relating to the concepts and principles upon which a particular topic is founded, rather than practice and experience
232. ex____c vacation *adj.* originating from or characteristic of a foreign country or culture; strikingly unusual, uncommon, or intriguing

ANSWERS: 223. colleague, 224. universe, 225. cousin, 226. sequence, 227. minus, 228. pristine, 229. dye, 230. jumble, 231. theoretical, 232. exotic

233. liquid as__ts of the company *n.* something or someone that is useful or valuable quality, skill, etc.; valuable property
234. save the pl___t *n.* any of the nine large celestial bodies that circle in the solar system; any celestial body that revolves around a star
235. price of pr____us metals *adj.* uncommon and extremely valuable
236. an____t stories *adj.* relating to the long ago, particularly the historical period preceding the fall of the Western Roman Empire; very old
237. c__e business activity *n.* the most essential or fundamental part of something
238. 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
239. ex___d the warranty *v.* to broaden in scope, range, or area
240. pr____s improvement *n.* a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products
241. bio_____al assay *adj.* relating to the application of the natural sciences, especially biology, and physiology, to clinical medicine and healthcare

ANSWERS: 233. asset, 234. planet, 235. precious, 236. ancient, 237. core, 238. cancer, 239. extend, 240. process, 241. biomedical

242. 30-w__t light bulb *n.* a standard unit for measuring electrical power
243. ind_____al alcohol *adj.* of or relating to or resulting from industry
244. a nu_____nt for hair *n.* any substance that is essential for the maintenance and growth of living things
245. m_d volcano *n.* a soft, wet, sticky earth or clay
246. tu_____e aerofoil *n.* a machine that rotates to generate power from fluids such as water or gas
247. di_____e a letter to secretary *v.* to state or give order with total authority; to say or read aloud for somebody else to write down or to be recorded
248. defense me_____sm *n.* a part of a machine, or a set of parts that performs a task; a natural or established process that occurs during a specific situation or reaction
249. a specialist in mic_____ogy *n.* the study of microorganisms, including bacteria, viruses, fungi, and algae, and their role in various fields such as medicine, agriculture, and the environment
250. exh_____ing view *adj.* making one feel very happy and lively; invigorating; providing a feeling of excitement or thrill
251. linear app_____te equation *adj.* nearly accurate or correct, but not completely so
252. soil con_____ion *n.* the presence of something harmful or unwanted in a substance, material, or environment; the act of introducing harmful substances or materials into an environment or area

ANSWERS: 242. watt, 243. industrial, 244. nutrient, 245. mud, 246. turbine, 247. dictate, 248. mechanism, 249. microbiology, 250. exhilarating, 251. approximate, 252. contamination

253. the se_____ce of the seasons *n.* a series of related events, actions, numbers, etc., which have a particular order
254. gas_____nal symptoms *adj.* relating to the stomach and intestines, particularly about the digestive system or related disorders
255. long-wav_____th laser *n.* the distance between two points in the same phase in consecutive cycles of a wave
256. in_____e a high degree of risk *v.* to include or affect someone or something as a necessary part of something else
257. smokeless f__l *n.* a substance that is typically burned to generate heat or energy
258. co___n's family *n.* the child of your aunt or uncle
259. r__l down his cheeks *v.* to move in a particular direction by turning over and over or from side to side
260. chi_____ee society *n.* a small, very intelligent ape found in west and central Africa with black or brown fur
261. fire dr__l *n.* a tool or machine used for making round holes or driving fasteners; a training or practice
262. 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
263. pathogenic ba_____ia *n.* single-celled or noncellular spherical or spiral or rod-shaped organisms that exist in large numbers in the air, water, and soil, and also in living and dead creatures and plants, and are often a cause of disease

ANSWERS: 253. sequence, 254. gastrointestinal, 255. wavelength, 256. involve, 257. fuel, 258. cousin, 259. roll, 260. chimpanzee, 261. drill, 262. filter, 263. bacteria

264. as___e an important role *v.* to think or accept something to be true without having proof of it; to take or begin to have power; to begin to exhibit a specific quality or appearance
265. sub_____ce oil reserves *adj.* situated or located beneath the surface of something; existing or occurring within the deeper layers of a material or object, often referring to areas below the Earth's surface
266. v__t desert *adj.* enormous in size, number, amount, or quantity
267. aquatic co_____nd *n.* an item composed of two or more distinct elements combined; a chemical formed by the combination of two or more elements
268. dis_____nt the audience *v.* to fail to meet someone or their hopes or expectations; to make someone feel sad
269. eth_____hy methods *n.* the study of social groups and cultures, often conducted through observation, interviews, and analysis of primary sources; a written account of such a study
270. ex_____ng news *adj.* causing a lot of interest or excitement
271. trees with rough b__k *n.* the hard outer layer of a tree; a sound made by dogs or some other animals
272. 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

ANSWERS: 264. assume, 265. subsurface, 266. vast, 267. compound, 268. disappoint, 269. ethnography, 270. exciting, 271. bark, 272. disease

273. on an equal ba__s *n.* the most important facts, ideas, or events from which something is developed; the way how things are organized or arranged
274. in samba rh___m *n.* a strong regular repeated pattern of sounds, words, or musical notes that are used in music, poetry, and dancing
275. ve_____al takeoff *adj.* upright or perpendicular to a horizontal surface or line
276. mi_____es sterilizer *n.* a tiny living thing that can only be seen with a microscope and that may cause disease
277. ripe pi_____le *n.* tropical fruit with a rough, spiky exterior and sweet, juicy flesh inside, often used in cooking, baking, or as a snack
278. d__n with faint praise *v.* to express disapproval of or disappointment in something or someone; to condemn or to curse; (a swear word) an expression of anger
279. zep_____nd range *n.* a unit of time equal to one trillionth of one billionth of a second (10^{-21} seconds), which is one of the smallest known units of time measurement
280. the pa_____en in the air *n.* a bacterium, virus, or other microorganism that causes disease
281. re___e the company *v.* to show that one is not willing to do or accept something
282. the spinal co___n *n.* one of the vertical blocks that split content on a page or screen from top to bottom; an upright pillar that often supports an arch, entablature, or other structure or stands alone as a monument

ANSWERS: 273. basis, 274. rhythm, 275. vertical, 276. microbe, 277. pineapple, 278. damn, 279. zeptosecond, 280. pathogen, 281. refuse, 282. column

283. re_____e one word with another *v.* to take the place of something
284. gravel se_____nt *n.* the substance that forms a solid layer at the bottom of the liquid
285. a scientific di_____ry *n.* the act or process of finding information, a place, or an object, or learning about something that was previously not known
286. toxic ch_____als *adj.* relating to or connected with chemistry;
287. con_____te with a disease *v.* to make something impure, unclean, or poisonous by contact or mixture
288. completely fas_____ng to me *adj.* extremely interesting
289. ju___e together different colors *v.* to mix or mingle various items, objects, or ideas together in a disordered or confused way, often resulting in a messy or chaotic situation; to create a disorderly or confusing arrangement of things
290. ro___t attack against the enemy *n.* a large tube-shaped object that moves very fast by a stream of gases let out behind it, used for space travel or as a weapon
291. a slim wa__t *n.* the part of the human body between the ribs and hips or the corresponding part in other animals
292. in_____e a lot of paperwork *v.* to include or affect someone or something as a necessary part of something else
293. re___e a message *v.* to establish a connection or association between two or more things; to narrate or tell about an event, experience, or relationship; to empathize or feel sympathy with someone or something

ANSWERS: 283. replace, 284. sediment, 285. discovery, 286. chemical, 287. contaminate, 288. fascinating, 289. jumble, 290. rocket, 291. waist, 292. involve, 293. relate

294. zep_____nd time *n.* a unit of time equal to one trillionth of one billionth of a second (10^{-21} seconds), which is one of the smallest known units of time measurement
295. hu_____g sound *adj.* producing a continuous, low, vibrating sound like that of the bee
296. ex____c species *adj.* originating from or characteristic of a foreign country or culture; strikingly unusual, uncommon, or intriguing
297. decision-making pr_____s *n.* a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products
298. an un_____ed position *adj.* having no connection; not belonging to the kinship
299. re_____ve factors *adj.* considered and evaluated through comparison with something else
300. fun_____al education *adj.* forming an essential base or core from which everything else develops or is affected
301. an_____or language *n.* a person from whom one is descended; a forefather
302. ill_____te a key point *v.* to provide pictures, photographs, diagrams, etc. in a book or something for explanation

ANSWERS: 294. zeptosecond, 295. humming, 296. exotic, 297. process, 298. unrelated, 299. relative, 300. fundamental, 301. ancestor, 302. illustrate

303. collaborate with co_____ues *n.* one of a group of a coworker, especially in a profession or a business
304. su_____ne cable *n.* a type of underwater vehicle or vessel that can operate beneath the surface of the water; (adjective) beneath the surface of the sea
305. have a st___e job *adj.* firm and steady; not easily moved, disturbed, or changed
306. have a si_____g quarrel *n.* a brother or sister; member of a family born to the same parents
307. the most am_____g feeling *adj.* extremely surprising, especially in a way that you like or admire
308. co_____ed of the idea *adj.* completely certain about something; having a strong belief or conviction in a particular religion

ANSWERS: 303. colleague, 304. submarine, 305. stable, 306. sibling, 307. amazing, 308. convinced

Session 3: Fill in the Blanks

1. The company's poor financial performance is likely to _____ the CEO's chances of being re-elected to the board.
 - v. to express disapproval of or disappointment in something or someone; to condemn or to curse; (a swear word) an expression of anger

2. The _____ for the cake is passed down from generation to generation in her family.
 - n. a set of instructions for preparing a dish, including the ingredients and the method of cooking

3. She felt a sense of _____ with her new colleagues.
 - n. the state or fact of being related to someone

4. He's utterly _____ with his promotion.
 - v. to fill the mind of someone continually so that one can't think of anything else

5. The _____ layers of the ocean are still largely unexplored.
 - adj. situated or located beneath the surface of something; existing or occurring within the deeper layers of a material or object, often referring to areas below the Earth's surface

6. What do you _____ the culprit's motive was?
 - v. to think that something is likely to be actual or possible

7. He beat out a jazz _____ on the cajones.
 - n. a strong regular repeated pattern of sounds, words, or musical notes that are used in music, poetry, and dancing

ANSWERS: 1. damn, 2. recipe, 3. kinship, 4. obsessed, 5. subsurface, 6. suppose, 7. rhythm

8. Generally speaking, men have a shorter _____ than women.
n. the length of time for which a person, animal lives, or thing exists
9. The public is _____ that the prime minister has committed fraud.
adj. completely certain about something; having a strong belief or conviction in a particular religion
10. It is terrific to camp in _____ nature.
adj. new and completely free from dirt or contamination
11. The _____ system of the animal is also responsible for heat transportation.
adj. relating to the system that moves blood through the body, which includes the heart, arteries, and veins
12. The _____ launch platform is visible from this hill.
n. a large tube-shaped object that moves very fast by a stream of gases let out behind it, used for space travel or as a weapon
13. _____ thrive on the surface of the human skin.
n. a tiny living thing that can only be seen with a microscope and that may cause disease
14. The _____ of the bees filled the air as she walked through the garden.
adj. producing a continuous, low, vibrating sound like that of the bee
15. He was a visiting _____ professor at the University of Tokyo.
n. a science that deals with the history of the earth as recorded in rocks

ANSWERS: 8. lifespan, 9. convinced, 10. pristine, 11. circulatory, 12. rocket, 13. Microbes, 14. humming, 15. geology

16. My remote _____ immigrated to the United States from Ireland in the 1800s.
n. a person from whom one is descended; a forefather
17. The findings of the experiment were both _____ and unexpected.
adj. causing a lot of interest or excitement
18. The military _____ disappeared without a trace.
n. a type of underwater vehicle or vessel that can operate beneath the surface of the water; (adjective) beneath the surface of the sea
19. mRNA vaccines are approved faster because they do not contain inactivated _____.
n. a bacterium, virus, or other microorganism that causes disease
20. My grandmother was hospitalized due to a severe Clostridium _____ infection, which required several rounds of antibiotics and careful monitoring by the medical staff.
n. a bacterium of the genus Clostridium that can cause severe diarrhea, particularly in a hospital or nursing home settings; a disease caused by this bacterium; (adjective) difficult or hard to do, understand, or deal with
21. I used to play with my younger male _____ when I was a little girl.
n. the child of your aunt or uncle
22. The _____ truck arrived with the packages.
n. the act of taking or sending something to a destination; the bringing of a baby during childbirth
23. The wooden gate had been damaged, and the hedge had become _____.
adj. covered in plants that have been allowed to grow naturally and have not been controlled

ANSWERS: 16. ancestor, 17. exciting, 18. submarine, 19. pathogens, 20. difficile, 21. cousins, 22. delivery, 23. overgrown

24. The rain and thunder are _____ today.

adj. stupid or not sensible; very angry

25. The _____ is about 13.8 billion years old.

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

26. Many of the party's members joined for simply _____ reasons.

adj. making use of a current situation to get power or advantage, especially regardless of planning or principle

27. The company's financial records _____ how successful it has been.

v. to provide pictures, photographs, diagrams, etc. in a book or something for explanation

28. The wind _____ were spinning rapidly, generating clean energy for the nearby town.

n. a machine that rotates to generate power from fluids such as water or gas

29. The investigation _____ several government agencies and is expected to take several months.

v. to include or affect someone or something as a necessary part of something else

30. The ____ of the swamp made it difficult to walk through the field.

n. a soft, wet, sticky earth or clay

31. The road's _____ was steep, making it challenging for cyclists.

n. the degree or rate of incline or decline along a physical or abstract line; a gradual progression

ANSWERS: 24. crazy, 25. universe, 26. opportunistic, 27. illustrate, 28. turbines, 29. involves, 30. mud, 31. gradient

32. Excuse me if my question is _____ to the topic.

adj. having no connection; not belonging to the kinship

33. My home is easily _____ from the shore.

adj. capable of being seen; or open to easy view

34. _____ design has become more focused on human nature aspect than ever before.

adj. of or relating to or resulting from industry

35. He discovered unique _____ for photochemical reactions.

n. a part of a machine, or a set of parts that performs a task; a natural or established process that occurs during a specific situation or reaction

36. The smell of freshly baked cookies in the kitchen _____ me.

v. to tease or torment by presenting something desirable but out of reach or unattainable; to tempt or lure with the promise of something desirable

37. He narrated the _____ story of his adventure.

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

38. Her research team made an important _____.

n. the act or process of finding information, a place, or an object, or learning about something that was previously not known

39. The _____ of the water supply led to widespread illness in the community.

n. the presence of something harmful or unwanted in a substance, material, or environment; the act of introducing harmful substances or materials into an environment or area

ANSWERS: 32. unrelated, 33. visible, 34. Industrial, 35. mechanisms, 36. tantalized, 37. extraordinary, 38. discovery, 39. contamination

40. In junior high school, we had to dissect a frog in _____ class.

n. the scientific study of life and the natural processes of living things

41. The _____ principle of every business was identical.

adj. significant as a cause or basis of something but not immediately apparent or stated clearly

42. Hydrogen and oxygen _____ to form water.

v. to join or merge to form a single thing or group

43. Human behavior has _____ characteristics.

adj. forming an essential base or core from which everything else develops or is affected

44. They have been living near water since _____ times.

adj. relating to the long ago, particularly the historical period preceding the fall of the Western Roman Empire; very old

45. We cannot afford to squander _____ time.

adj. uncommon and extremely valuable

46. The phone call is an _____ interruption.

adj. making someone feel slightly angry

47. To find drunk drivers, police conduct _____ tests.

adj. made, done, or happening without method, conscious decision, or any regular pattern

48. The field of _____ includes the study of bacteria, fungi, viruses, and other microorganisms.

n. the study of microorganisms, including bacteria, viruses, fungi, and algae, and their role in various fields such as medicine, agriculture, and the environment

ANSWERS: 40. biology, 41. underlying, 42. combine, 43. fundamental, 44. ancient, 45. precious, 46. annoying, 47. random, 48. microbiology

49. The allegations of corruption _____ her reputation, and she struggled to regain public trust.
- v.* to discolor, defile, or tarnish something; (noun) a discoloration or dirty mark on a surface that is difficult to remove
50. I casually _____ into the small hut.
- v.* to give a quick or brief look; to hit something at an angle
51. We strive not to _____ the environment when demolishing petroleum plants.
- v.* to make something impure, unclean, or poisonous by contact or mixture
52. The food chain causes a material _____.
- n.* an interval during which a recurring sequence of events occurs; a bicycle or motorcycle
53. The office installed new _____ lighting to save energy.
- adj.* emitting or reflecting vibrant and vivid light, especially under ultraviolet light; describing a type of lamp or bulb that produces such light
54. A sense of humor is an invaluable _____ in this job.
- n.* something or someone that is useful or valuable quality, skill, etc.; valuable property
55. Several military _____ programs have become popular methods of exercise.
- n.* a tool or machine used for making round holes or driving fasteners; a training or practice
56. New York is a city with a _____ ethnic population.
- adj.* including numerous categories of individuals or entities; various

ANSWERS: 49. stained, 50. glanced, 51. contaminate, 52. cycle, 53. fluorescent, 54. asset, 55. drill, 56. diverse

57. The _____ scarcity most severely impacted the manufacturing sector
- n.* a substance that is typically burned to generate heat or energy
58. Currently, no scientific evidence or technology is capable of measuring time intervals at the _____ level.
- n.* a unit of time equal to one trillionth of one billionth of a second (10^{-21} seconds), which is one of the smallest known units of time measurement
59. Bungee jumping was an _____ experience that left me shaking with adrenaline.
- adj.* making one feel very happy and lively; invigorating; providing a feeling of excitement or thrill
60. The book is a rich and detailed _____ of the cultural practices of a group of people.
- n.* the study of social groups and cultures, often conducted through observation, interviews, and analysis of primary sources; a written account of such a study
61. The _____ events of the war left many families torn apart.
- adj.* causing great sadness or suffering; very unfortunate
62. The children _____ up the puzzle pieces and had to start over.
- v.* to mix or mingle various items, objects, or ideas together in a disordered or confused way, often resulting in a messy or chaotic situation; to create a disorderly or confusing arrangement of things
63. The _____ to the safe was a secret.
- n.* a collection of things that have been combined; an assemblage of separate parts or qualities

ANSWERS: 57. fuel, 58. zeptosecond, 59. exhilarating, 60. ethnography, 61. tragic, 62. jumbled, 63. combination

64. She worked very hard not to _____ her boss's expectations.
v. to fail to meet someone or their hopes or expectations; to make someone feel sad
65. 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
66. The museum houses a _____ collection of Celtic artifacts.
adj. extremely interesting
67. He collected data to avoid _____ decisions.
adj. based on chance, or individual whim rather than any reason
68. He is very popular at school because he can _____ all the teachers' accents.
v. to imitate someone's speech, movement, or behavior, especially to make others laugh
69. The family decided to _____ in the mountains to enjoy the beautiful scenery.
n. a long walk or journey, especially for pleasure or exercise; an increase in cost
70. In _____ plants use carbon dioxide to feed themselves.
n. the process through which plants and other organisms transform light energy into chemical energy, which is then released through cellular respiration to power the organism's activities.
71. I used an optical _____ to observe the small organisms in the water sample.
n. an instrument used to see objects or substances that are too small to be seen with the naked eye

ANSWERS: 64. disappoint, 65. disease, 66. fascinating, 67. arbitrary, 68. mimic, 69. hike, 70. photosynthesis, 71. microscope

72. The _____ in a forest can be measured by collecting and weighing all living plants within a specific area.
- n.* the total quantity of living matter in a given unit of environment, including plants, animals, and microorganisms
73. My initial reaction was to _____.
- v.* to show that one is not willing to do or accept something
74. 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
75. The following example _____ that the capacity of each battery is the same.
- v.* to think or accept something to be true without having proof of it; to take or begin to have power; to begin to exhibit a specific quality or appearance
76. Her visit will _____ from Monday to Friday.
- v.* to broaden in scope, range, or area
77. The newspaper devoted several _____ to the affair.
- n.* one of the vertical blocks that split content on a page or screen from top to bottom; an upright pillar that often supports an arch, entablature, or other structure or stands alone as a monument
78. The _____ of people who do not own property is politically impotent.
- n.* a large amount of a substance with no definite shape or form; a large number of people or things grouped or crowded together
79. The allies _____ the terms of surrender to the country.
- v.* to state or give order with total authority; to say or read aloud for somebody else to write down or to be recorded

ANSWERS: 72. biomass, 73. refuse, 74. cancer, 75. assumes, 76. extend, 77. columns, 78. mass, 79. dictated

80. Common salt is a sodium and chlorine _____.

n. an item composed of two or more distinct elements combined; a chemical formed by the combination of two or more elements

81. The ladder leaned against the _____ surface of the building.

adj. upright or perpendicular to a horizontal surface or line

82. _____ engineering focuses on developing new medical technologies and innovations to improve patient health outcomes.

adj. relating to the application of the natural sciences, especially biology, and physiology, to clinical medicine and healthcare

83. The _____ to the Amazon jungle was both exciting and challenging.

n. a journey or voyage for a specific purpose

84. Certain foods can cause _____ problems if eaten in excess.

adj. relating to the stomach and intestines, particularly about the digestive system or related disorders

85. Relations between the two countries have been relatively _____ due to the summit meeting.

adj. firm and steady; not easily moved, disturbed, or changed

86. She cinched her dress at the _____ to accentuate her hourglass figure.

n. the part of the human body between the ribs and hips or the corresponding part in other animals

87. The mining and processing of _____ can lead to releasing radioactive materials into the environment.

n. a chemical element with the symbol U, atomic number 92, that is a dense, silvery-white metal that is radioactive and is used as a fuel for nuclear power plants

ANSWERS: 80. compound, 81. vertical, 82. Biomedical, 83. expedition, 84. gastrointestinal, 85. stable, 86. waist, 87. uranium

88. The scientist used an _____ amount of the compound in their experiment.

adj. extremely small or tiny; almost negligible in size or quantity

89. These gas nebulas are merely newborn galactic _____.

n. the most essential or fundamental part of something

90. We argue that wages for temporary workers should _____ rise.

adv. in almost the same way

91. The family took a _____ to the Caribbean for their vacation.

n. a voyage on a large ship for pleasure; driving or traveling at a leisurely pace

92. The _____ pace of the city can be overwhelming for some people.

adj. frenzied, fast-paced, and full of energy or activity; characterized by intense and chaotic busyness or agitation

93. Eventually, the new design will _____ all older models.

v. to take the place of something

94. Children often copy their parents or elder _____.

n. a brother or sister; member of a family born to the same parents

95. Radiation from _____ has a different wavelength.

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

96. A _____ audience viewed the broadcast.

adj. enormous in size, number, amount, or quantity

ANSWERS: 88. infinitesimal, 89. cores, 90. similarly, 91. cruise, 92. frenetic, 93. replace, 94. siblings, 95. sunlight, 96. vast

97. We _____ our mining resources to strengthen our national power.
- v.* to make full use of and gain an advantage from resources, opportunities, etc.
98. 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
99. He tried to _____ his experience to the group, but they couldn't understand.
- v.* to establish a connection or association between two or more things; to narrate or tell about an event, experience, or relationship; to empathize or feel sympathy with someone or something
100. _____ mutans is a type of bacteria that can cause tooth decay.
- n.* a genus of bacteria that includes many species, some of which can cause a wide range of infections in humans and animals, including strep throat, pneumonia, and skin infections
101. The president agreed to _____ the ill-defined regulations.
- v.* to change a text, law, statement, etc., slightly to remove faults or errors or to improve it
102. This process improves the strength of the metal by controlling the _____ lattice structure of the metal.
- adj.* on a scale that can be measured in nanometres (= one billionth of a meter); on a very small scale
103. The golfer recorded an _____ distance.
- adj.* extremely surprising, especially in a way that you like or admire
104. I love trying _____ foods from different cultures.
- adj.* originating from or characteristic of a foreign country or culture; strikingly unusual, uncommon, or intriguing

ANSWERS: 97. exploit, 98. filter, 99. relate, 100. Streptococcus, 101. amend, 102. nanoscale, 103. amazing, 104. exotic

105. 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
106. He _____ that this investment would lead to success.
- v.* to form a theory or conjecture or guess about a subject without solid evidence
107. The firm has grown into a large _____ manufacturing.
- adj.* relating to or connected with chemistry;
108. There are _____ differences between the two wine-producing regions.
- adj.* easy to see, discover or understand
109. Mercury is the closest _____ to the sun.
- n.* any of the nine large celestial bodies that circle in the solar system; any celestial body that revolves around a star
110. She finally decided to _____ herself from the company.
- v.* to unfasten or disjoin something, especially to break the connection between a supply of gas, water, or electricity and a piece of equipment
111. I love to eat fresh _____ in my fruit salad.
- n.* tropical fruit with a rough, spiky exterior and sweet, juicy flesh inside, often used in cooking, baking, or as a snack
112. He couldn't _____ the actual value of the artwork.
- v.* to judge or find out the amount or number of something by using mathematics

ANSWERS: 105. determinant, 106. speculated, 107. chemical, 108. obvious, 109. planet, 110. disconnect, 111. pineapple, 112. calculate

113. _____ species have drastically altered the ecosystem in this area.
n. a person who comes from a different country, race, or group; a form of life assumed to exist outside the Earth or its atmosphere
114. Most countries prohibit sexual activity between certain close _____.
adj. considered and evaluated through comparison with something else
115. Animal protection groups call for an end to animal testing in a _____.
n. a workplace for doing scientific research or teaching science; a lab
116. She _____ her hair purple for a change.
v. to color a textile or hair by immersing it in a colored liquid or substance
117. The _____ for applying for a visa can be lengthy and complicated.
n. a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products
118. They used fast-acting _____ on the flowers in the flower beds.
n. any substance that is essential for the maintenance and growth of living things
119. The garden was full of _____ that needed to be pulled.
n. a wild plant growing where it is not wanted and in competition with cultivated plants
120. The industrial _____ laws were passed with little to no alteration.
n. the way two persons or groups of people feel and act toward one another

ANSWERS: 113. Alien, 114. relatives, 115. laboratory, 116. dyed, 117. process, 118. nutrients, 119. weeds, 120. relations

121. Several hectares of land are needed to generate more than 1-mega_____ solar power.

n. a standard unit for measuring electrical power

122. The study of Escherichia _____ has led to important advancements in areas such as antibiotic resistance, gut microbiome, and synthetic biology.

n. a bacterium of the genus Escherichia that is commonly found in the human gut and is used as a model organism in molecular biology and biochemistry

123. The police used a _____ scanner to identify the suspect.

n. a unique pattern of ridges and valleys on the surface of a finger that can be used to identify a person

124. We do move forward with those tasks in _____ next week.

n. a series of related events, actions, numbers, etc., which have a particular order

125. His _____ showed highly positive results.

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

126. Heavy rain often washes away _____ of the river.

n. the substance that forms a solid layer at the bottom of the liquid

127. The oceanographer studied the _____ topography to understand how it had changed over time.

n. the bottom of the ocean

128. The wallpaper had a pattern of pink _____ on a white surface.

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

ANSWERS: 121. watt, 122. coli, 123. fingerprint, 124. sequence, 125. experiments, 126. sediments, 127. seafloor, 128. dots

129. Human conservation efforts often fail unexpectedly because they disturb the balance of the _____.
- n.* all the plants and living creatures in an area and the way they affect each other and the environment
130. I decided to seek counseling on the advice of my _____.
- n.* one of a group of a coworker, especially in a profession or a business
131. 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
132. The balance of the _____ is crucial for the survival of species.
- n.* the part of the Earth and its atmosphere in which living organisms exist, including plants, animals, and microorganisms
133. I advised him to _____ to his new surroundings.
- v.* to make fit for or change to suit a new purpose or environment
134. Ordinary air purifiers cannot adequately remove pollen _____.
- n.* wheat or any other small hard seeds used as a food; a relatively small granular particle of a substance
135. All the supervisor has to do is assign tasks that make his subordinates more _____.
- adj.* relating to or involving the use of skill and original and unusual ideas to create something
136. European powers _____ much of the Americas in the 16th and 17th centuries.
- v.* to establish a colony in or on a specific place; to settle or occupy in large numbers

ANSWERS: 129. ecosystem, 130. colleague, 131. oxygen, 132. biosphere, 133. adapt, 134. grains, 135. creative, 136. colonized

137. He removed the _____ from the tree.

n. the hard outer layer of a tree; a sound made by dogs or some other animals

138. This evidence will form the _____ for our discussion.

n. the most important facts, ideas, or events from which something is developed; the way how things are organized or arranged

139. Many zoos have _____ exhibits, allowing visitors to observe these intelligent primates up close.

n. a small, very intelligent ape found in west and central Africa with black or brown fur

140. The experience was _____ and left a lasting impression.

adj. extremely unpleasant or bad; causing fear or disgust

141. _____ prevalent in hospitals are often resistant to antibiotics.

n. single-celled or noncellular spherical or spiral or rod-shaped organisms that exist in large numbers in the air, water, and soil, and also in living and dead creatures and plants, and are often a cause of disease

142. My memories of the holiday were _____.

adj. not clear due to a lack of recollection, comprehension, or detail; unsure or perplexed about something

143. One bad apple spoils the whole _____.

n. a grouping of several similar things which are growing or fastened together

144. Glass _____ dishes are used to culture microorganisms.

n. (petri dish) a small, clear, and round dish with a lid used in laboratories, especially for growing bacteria

ANSWERS: 137. bark, 138. basis, 139. chimpanzee, 140. horrible, 141. Bacteria, 142. hazy, 143. bunch, 144. petri

145. This company _____ its battery problem completely.

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

146. White color is made up of many different _____ of light.

n. the distance between two points in the same phase in consecutive cycles of a wave

147. 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

148. People have been exploring ways to _____ natural forces and resources since ancient times.

v. to control and exploit the power of something, especially natural resources that produce energy; (noun) a set of narrow pieces of leather and metal that are used to control or hold in place a person, animal, or object

149. The penny fell _____ the piano.

adv. under or below something else

150. The _____ cost of the project was estimated to be around \$500,000.

adj. nearly accurate or correct, but not completely so

151. Absolute zero is the lowest _____ temperature.

adj. relating to the concepts and principles upon which a particular topic is founded, rather than practice and experience

152. He was exhausted and _____ into bed as soon as he got home.

v. to move in a particular direction by turning over and over or from side to side

ANSWERS: 145. resolves, 146. wavelengths, 147. background, 148. harness, 149. underneath, 150. approximate, 151. theoretical, 152. rolled

153. Which _____ of the company do you work in?

n. the act or outcome of splitting into separate parts; a critical organizational unit or sector

154. The recipe calls for four cups of flour _____ one tablespoon.

adj. subtracting or taking away; having a value less than zero

ANSWERS: 153. division, 154. minus