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Vocabulary Builder Reference from...

Helen Czerski: The fascinating physics of everyday life | TED Talk

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

All Words

IMPORTANT

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Session 1: Word List

physicist

n. a scientist who specializes in the field of physics
(1) talented **physicist**, (2) theoretical **physicist**
Einstein was an outstanding and famous **physicist** of the 20th century.

physics

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

modification

n. the act of changing something, usually to improve it, or something changed
synonym: change, amendment, alteration
(1) a **modification** of last year's model, (2) further **modification**
As a result of this **modification**, we have revised our safety measures.

mum

n. a British term for "mom" or "mother"; (adjective) failing to speak or communicate when expected to do so
synonym: mother, silent, soundless
(1) **mum's** cooking, (2) keep **mum**
My **mum** always knew how to comfort me when I was feeling

down.

undergraduate

n. a student who is studying for their first degree at a university or other higher education institution

synonym: college student, freshman

(1) engineering **undergraduate**, (2) **undergraduate** course

The class was composed of both **undergraduate** and graduate students.

quantum

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

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

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

mechanics

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

synonym: kinematics, dynamics

(1) **mechanics** equation, (2) **mechanics** of the game

He studied **mechanics** in college and now works as an engineer.

hieroglyph

n. a writing system using picture symbols, such as the one used in ancient Egypt

synonym: character, cipher, figure

(1) Egyptian **hieroglyph**, (2) the **hieroglyph** of the bird

Each beautiful **hieroglyph** represents either an idea or a sound.

nucleus

n. the central and most important part of something; (biology) a part of the cell containing DNA and RNA and responsible for growth and reproduction; (physics) the very dense central region of an atom

synonym: core, heart, middle

(1) form a **nucleus**, (2) the **nucleus** of a team

DNA is stored in the **nucleus** of a cell.

coefficient

n. a numerical measure of a specific property or characteristic of a substance or system that is used in mathematical equations or formulas to predict behavior or outcomes; a factor that expresses the change in one variable per unit change in another variable

synonym: constant, factor, ratio

(1) absorption **coefficient**, (2) thermal expansion

coefficient

The **coefficient** of friction on the icy road was dangerously low.

impressive

adj. arousing admiration due to size, quality, or skill

synonym: impactful, remarkable, exceptional

(1) **impressive** performances, (2) an **impressive** array of facts

The budget reduction was an **impressive** feat for our nation.

broaden

v. to make or become wider or more extensive; to make or become more tolerant or liberal.

synonym: expand, widen, enlarge

(1) **broaden** students' knowledge, (2) **broaden** their horizon

The company **broadened** its product line to include more customer options.

perception

n. a belief, opinion, or image you have based on how you regard, understand, or interpret something; the ability to see, hear, or notice something through the senses

synonym: understanding, idea, awareness

(1) keen **perception**, (2) **perception** of a stimulus

He is a man admired for the depth of his **perception**.

shift

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

synonym: transition, change, modification

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

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

perspective

n. a confident attitude toward something; a particular style of thinking about something

synonym: viewpoint, standpoint, outlook

(1) a **perspective** view, (2) the **perspective** of the battle
His father's death changed his whole **perspective** on life.

bias

n. a strong feeling in favor of or against one group of people, an idea, or thing, often not based on fair judgment

synonym: inclination, partiality, predilection

(1) **bias** against a big company, (2) have a **bias** toward socialism

She researched gender **bias** in politics.

photograph

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

synonym: photo, picture, snapshot

(1) **photograph** album, (2) **photograph** memories

I found an old **photograph** of my grandparents from their wedding day.

confer

v. to have a meeting or discussion to come to a decision or agreement or exchange ideas; to bestow something

synonym: consult, meet, discuss

(1) **confer** degree, (2) **confer** honor

The leaders of the two countries met to **confer** on the issue.

grapple

v. to make a strenuous effort to solve a problem; to engage in a close fight or conflict without weapons

synonym: brawl, scuffle, wrestle

(1) **grapple** with problem, (2) **grapple** with each other

He needed to **grapple** with structural reforms to improve the company's revenue.

deterministic

adj. characterized by an assumption of cause and effect and the absence of chance or randomness, often used to

describe scientific or engineering calculations

synonym : predictable, predetermined, certain

(1) **deterministic** approach, (2) **deterministic** system

The **deterministic** algorithm always produces the same result for a given input.

probabilistic

adj. characterized by the influence of chance or probability; involving the use of statistical models or methods to estimate likelihoods or risks

synonym : probable, statistical, likely

(1) **probabilistic** model, (2) **probabilistic** approach

In a **probabilistic** system, the outcome is uncertain and can vary based on chance.

particle

n. a small piece of something; a word or piece of a term with grammatical function but little or no significance

synonym : atom, grain, bit

(1) charged **particle**, (2) **particle** energy

We can calculate the position of the **particles** statistically.

stern

adj. serious, unyielding, or strict in manner or attitude

synonym : severe, harsh, strict

(1) **stern** warning, (2) a **stern** look

The students' antics did not amuse the **stern** teacher.

suit

n. a set of clothes that are made from the same material; a claim or complaint that a person or organization can file in court against another party; (verb) to be fit or acceptable for

synonym : clothes, lawsuit, (verb) fit

(1) **suit** and tie restaurant, (2) **suit** at law

Six **suits** are awaiting trial or verdict.

collide

v. to hit something violently when moving

synonym : clash, slam, contradict

(1) **collide** head-on, (2) **collide** in midair

The interests of the two countries **collide**.

assess

v. to judge or decide the nature or quality of someone or something

synonym: estimate, evaluate, consider

(1) **assess** a tax of 10 pounds, (2) **assess** the quality
Our company needs to **assess** the business impact of climate change.

weird

adj. extraordinary, unexpected, or difficult to explain

synonym: bizarre, creepy, peculiar

(1) a **weird** dress, (2) the state of being **weird**
My computer has been acting **weird** recently.

slightly

adv. in a small degree or extent; a little

synonym: barely, narrowly, scarcely

(1) increase **slightly**, (2) **slightly** alkaline soils
He moved his body **slightly** to the left.

inaccessible

adj. unable to travel to or reach; not available

synonym: inapproachable, unreachable, remote

(1) **inaccessible** to an unauthorized user, (2) **inaccessible** areas
Heavy snow made it **inaccessible** to go to the mountain village.

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.

interface

n. (computer science) a program that controls a display for the user and that allows the user to interact with the system; (chemistry) a surface forming a common boundary between two things

synonym: junction, surface, UI

(1) **interface** between gas and liquid, (2) the user **interface**
Detergent weakens the surface tension at the **interface** of two liquids.

atmosphere

n. the mass of air that surrounds the Earth; the pervading tone or mood of a place, situation, or creative work
synonym: air, ambiance, circumstances

(1) carbon dioxide in the **atmosphere**, (2) a convivial **atmosphere**

The spaceship began to burn up as it approached the Earth's **atmosphere**.

massive

adj. enormous amount; very heavy and solid
synonym: enormous, giant, immense

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

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

reservoir

n. a natural or artificial lake used to store water for community use; a large or extra supply of something
synonym: pool, supply, repertoire

(1) a **reservoir** of facts, (2) water **reservoir**

The machine pumps up crude oil from a deep underground **reservoir**.

definitely

adv. without any question and beyond doubt; clearly
synonym: absolutely, certainly, indeed

(1) **definitely** become a problem, (2) say **definitely**

The paper is **definitely** worth reading thoroughly.

graph

n. a picture consisting of a line, lines, points, etc., that shows how two or more sets of certain quantities are related to each other

synonym: chart, diagram, figure

(1) **graph** theory, (2) a **graph** sample

This bar **graph** shows sales over the past five years.

cosmology

n. the scientific study of the nature and origin of the universe

synonym : cosmogony

(1) physical **cosmology**, (2) modern **cosmology**

Cosmology evolved from people's philosophical questions about the natural world.

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.

frontier

n. a border that separates two countries, or the area near this line

synonym : border, boundary, borderland

(1) **frontier** disputes, (2) the Italian **frontier** with Switzerland

He worked at the **frontier** of behavioral economics.

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**.

gap

n. a conspicuous disparity or difference separates something such as a figure, people, their opinions, situation, etc.

synonym : opening, lacuna, spread

(1) the **gap** between ideal and reality, (2) distance **gap**

Many people are working together to close the gender **gap**.

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.

toast

n. slices of bread browned on both sides that have been put near a high heat; a drink in honor of or to the health of a person or even

(1) drink a **toast**, (2) slice of **toast**

We made a **toast** with everyone.

volcano

n. a mountain or hill, typically conical, having a crater or vent through which lava, rock fragments, hot vapor, and gas are or have been erupted from the earth's crust.

synonym : mount, peak, crater

(1) **volcano** alert level, (2) active **volcano**

The island was formed by a **volcano** millions of years ago.

clarinet

n. a musical instrument of the woodwind family, with a single reed, a cylindrical bore, and a curved mouthpiece, known for its versatility and rich, warm tone

synonym : reed instrument

(1) **clarinet** reed, (2) **clarinet** player

The **clarinet's** unique sound added to the jazz ensemble.

bubble

n. a thin, round, and often transparent mass of gas that is surrounded by a thin layer of liquid; a state of economic or social prosperity that is unsustainable and eventually collapses

synonym : blob, balloon, mania

(1) **bubble** in the champagne glass, (2) economic **bubble**

Many people worry that the current real estate market is a **bubble** that could burst soon.

dolphin

n. a marine mammal that typically has a beaklike snout, a streamlined body, and flippers and that feeds on fish and squid

synonym : porpoise, cetacean, marine mammal

(1) **dolphin** show, (2) **dolphin-watching** tour

The large group of **dolphins** swam gracefully in the ocean, jumping out of the water now and then.

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**.

Newtonian

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

synonym : classical, physics, mechanics

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

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

thermodynamics

n. the area of physics that deals with heat, work, and temperature and their relation to energy, entropy, and the physical properties of matter and radiation

(1) applied **thermodynamics**, (2) the laws of **thermodynamics**

The second law of **thermodynamics** denies the existence of a perpetual motion engine.

rot

v. to decay, or cause something to decay, naturally and gradually

synonym : perish, decay, corrode

(1) begin to **rot**, (2) **rot** with age

Please refrigerate the meat, or it will **rot**.

dynamics

n. the branch of mechanics that deals with the motion of bodies under the action of forces, including the particular case in which a body remains at rest; forces that produce or stimulate movement, growth, or change

synonym: mechanics, kinetics, kinematics

(1) **dynamics** of group, (2) **dynamics** of economy

The relationship **dynamics** between the two countries were complex and constantly changing.

complexity

n. the state or quality of being complicated or intricate and difficult to understand

synonym: intricacy, sophistication, elaboration

(1) cognitive **complexity**, (2) **complexity** theory

The project's **complexity** made it difficult for the team to complete it on time.

messy

adj. disorganized and untidy

synonym: cluttered, disorganized, untidy

(1) **messy** data, (2) **messy** handling

His **messy** bedroom is always a source of frustration for his mother.

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.

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.

spinning

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

synonym: whirling, rotating, spinning wheel

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

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

solid

adj. hard or firm; characterized by good substantial quality

synonym: stable, reliable, hard

(1) **solid** ally, (2) **solid** employment measures

The **solid-state** of water is called ice.

shell

n. hard outer covering or case of eggs, nuts, some seeds, and some animals

synonym: ammunition, armor, cover

(1) an egg **shell**, (2) a mollusk **shell**

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

liquid

n. a substance, such as water or oil that flows freely and is neither a solid nor a gas

synonym: fluid

(1) colorless **liquid**, (2) hazardous **liquid**

The sponge takes up the **liquid** well.

rotate

v. to turn around a central point or axis; to move in a circular path around something

synonym: turn, revolve, spin

(1) **rotate** crops, (2) **rotate** about the origin

The Earth **rotates** on its axis once every 24 hours.

brilliant

adj. extremely clever, skilled, or impressive

synonym: luminous, intelligent, clever

(1) **brilliant** idea, (2) **brilliant** performance

The more **brilliant** you are, the more people around you look at you with envy and jealousy.

demonstration

n. a display or show, often of a particular skill or product, intended to convince or persuade others

synonym:

manifestation, presentation, show

(1) **demonstration** project, (2) a campus **demonstration**
Thousands of people attended the protest **demonstration**
against the proposed policy.

conservation

n. the protection of something important, such as the natural environment or artificial structures, especially from the damaging effects of human activity

synonym : preservation, protection, saving

(1) soil **conservation**, (2) the **conservation** law of physics
The forest was recently designated a **conservation** area.

angular

adj. measured by an angle or by the rate of change of an angle; having angles or an angular shape

synonym : jagged, angulate

(1) **angular** mountain ridge, (2) **angular** momentum

Any rotating body has **angular** momentum about its center of mass.

axis

n. a real or imaginary straight line through a body or figure around which the object turns; a group of countries in special alliance

synonym : central, core, pole

(1) vertical **axis**, (2) a coordinate **axis**

The earth's **axis** of rotation is tilted 66.5 degrees to the ecliptic plane.

apparently

adv. based on what you have heard or read

synonym : evidently, obviously, supposedly

(1) **apparently** simple, (2) **apparently** unrelated

The police **apparently** believed this explanation was plausible.

fridge

n. a piece of electrical equipment in which food can be stored at low temperatures so that it stays fresh

synonym : refrigerator

(1) **fridge** magnet, (2) fill the **fridge**
She left the **fridge** door open inadvertently.

judge

n. a person who makes decisions in a court of law; (verb) to determine the result of or form a critical opinion of something

synonym: arbiter, justice, (verb) deduce

(1) **judge** a competition, (2) an associate **judge**
The strict **judge** ruled in favor of the plaintiff in the case.

broad

adj. very wide; general

synonym: wide, expansive, comprehensive

(1) attract **broad** attention, (2) a **broad** mind
He accumulated wealth across a **broad** spectrum of assets.

applicable

adj. fit or suitable to be applied; having relevance to a person or thing

synonym: practical, usable, useful

(1) give **applicable** examples, (2) accordance with **applicable** law

This regulation is not **applicable** to minors.

telescope

n. a device like a tube in shape containing lenses used to magnify and observe distant objects

(1) a binocular **telescope**, (2) look through a **telescope**
This facility has the largest astronomical **telescope** in the country.

sect

n. a group of people who follow a particular religious or philosophical belief system, especially one that is regarded as outside the norm or mainstream

synonym: group, faction, cult

(1) **sect** beliefs, (2) secret **sect**

The minority **sect** believed in a set of unconventional religious practices.

accurate

adj. correct and exact in all details

synonym : exact, precise, proper

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

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

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.

disappointment

n. the feeling of sadness, frustration, or dissatisfaction that arises when something does not live up to one's expectations or hopes

synonym : letdown, frustration, discouragement

(1) **disappointment** in the result, (2) **disappointment** with the service

The cancellation of the concert was a huge **disappointment** for the fans.

gyroscope

n. a device consisting of a spinning wheel or disk mounted in such a way that it can rotate freely in any direction, used to maintain balance, stability, or orientation in navigation, aerospace, or other systems

synonym : gyro, stabilizer, compass

(1) **gyroscope** sensor, (2) inertial navigation **gyroscope**

The **gyroscope** in the spacecraft helps to stabilize its orientation during the mission.

indefinitely

adv. without any fixed or definite limit; for an unknown or unspecified period of time

synonym : endlessly, permanently, perpetually

(1) postpone a meeting **indefinitely**, (2) **indefinitely** suspended

The construction project has been delayed **indefinitely** due to the pandemic.

orient

v. to position or adjust someone or something for a particular purpose; (noun) the countries of Asia

synonym : position, align, adjust

(1) **orient** my thinking, (2) the exotic flavor of the **Orient**
She took a moment to **orient** herself in the unfamiliar city.

advance

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

synonym : progress, boost, come along

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

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

reward

n. a thing given in acknowledgment of service, hard work, achievement, etc.

synonym : compensation, gratuity, bonus

(1) the **reward** for good works, (2) shopping **rewards** cards
Night fishing has a lot of **rewards**.

spot

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

synonym : dot, mark, place

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

This remote **spot** is rarely visited.

businessperson

n. a person who is engaged in business, typically as an owner or executive

synonym : entrepreneur, executive

(1) a young **businessperson**, (2) **businessperson** network

He was a successful **businessperson** and had much experience in the field.

afterward

adv. after the time mentioned

synonym : later, thereafter, following

(1) a few years **afterward**, (2) go there **afterward**

We will explain the countermeasure concerning this problem

afterward.

- tug** *v.* to pull something quickly and hard, often several times
synonym : draw, jerk, pull
(1) **tug** a rope, (2) **tug** at his hand
This movie **tugs** at everyone's heartstrings.
- sleeve** *n.* a part of a garment that covers all or part of an arm
synonym : arm covering, armband
(1) a wide **sleeve**, (2) **sleeve** length
He rolled up his **sleeves** to get ready to work.
- toy** *n.* a thing, typically a small model or replica of something that is played with, especially by children
synonym : plaything, game, trinket
(1) **toy** store, (2) **toy** box
He gave his daughter a new **toy** for her birthday.
- dismiss** *v.* to regard something or someone as not important and not worth considering; to terminate someone's employment
synonym : decline, disband, dissolve
(1) **dismiss** a person from the office, (2) **dismiss** a matter with a laugh
The committee has decided to **dismiss** the president from the post.
- mundane** *adj.* very ordinary and therefore lacking interest or excitement
synonym : ordinary, everyday, prosaic
(1) **mundane** affairs, (2) **mundane** objects
After returning from the war, he had a pretty **mundane** life.
- butt** *v.* to strike or push something with the flat end of your hip or buttocks; to hit or knock forcefully; (noun) the remaining end of a smoked cigarette
synonym : hit, punch, strike

(1) **butt** into several people, (2) cigarette **butt**

The goats often **butt** heads when they are fighting for dominance.

modern

adj. of or belonging to the present time or recent times

synonym: contemporary, stylish, current

(1) **modern** poetry, (2) pre- **modern** agricultural society

Their headquarters are in a **modern** skyscraper.

concept

n. an idea or principle associated with something abstract

synonym: idea, notion, vision

(1) learn new **concepts**, (2) **concept** car

One such rapidly growing **concept** is quantum cryptography.

magnet

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

synonym: magnetite, lodestone, attracting substance

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

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

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.

fizz

v. to make a hissing or bubbling sound, often accompanied by the release of gas or effervescence; to be lively, exciting, or effervescent in character or atmosphere; (noun) the sound, process, or result of something producing small bubbles

synonym: fizzle, effervesce, bubble

(1) **fizz** up after the speech, (2) **fizz** with life

The soda began to **fizz** when I opened the can, spilling over

the top and onto my shirt.

raisin

n. a dried grape, typically made from certain varieties of grapes that are specifically grown for this purpose; a popular snack food or baking ingredient

synonym: dried grape, sultana, currant

(1) **raisin** pie, (2) **raisin** oatmeal cookies

The **raisin** bread had a deliciously sweet flavor.

consequence

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

synonym: result, impact, outcome

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

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

secondly

adv. used to introduce the second point or item in a list or series of statements, considerations, etc.

synonym: in the second place, next, subsequently

(1) **secondly** connected, (2) **secondly**, it is important

Firstly, we will discuss the budget; **secondly**, we will go over the schedule.

spin

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

synonym: rotate, twirl, swirl

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

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

viscosity

n. the state or quality of being thick, sticky, and semi-fluid in consistency; resistance to flow

synonym: thickness, consistency, texture

(1) high **viscosity**, (2) dynamic **viscosity**

The **viscosity** of the oil made it difficult to pour.

democracy

n. a form of government in which the people have the authority to deliberate and decide legislation, or to choose governing officials to do so

synonym : self-government, republic, commonwealth

(1) **democracy** advocate, (2) principles of **democracy**

Democracy often entails inclusive capitalism as well.

posh

adj. elegant, fashionable, or luxurious, often to an excessive or ostentatious degree; associated with the upper classes or a high level of social status

synonym : elegant, fancy, luxurious

(1) **posh** district, (2) **posh** restaurant

The CEO's office was decorated in a **posh** and elegant style.

lab

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

synonym : workshop, laboratory, research chamber

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

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

chapter

n. a separate section of a written work usually numbered and titled

synonym : section, phase, episode

(1) an introductory **chapter**, (2) **chapter** of a political party

The final **chapter** provides a summary of the discussion.

oversea

adj. situated or operating beyond national boundaries; in, from, or to foreign countries

synonym : foreign, abroad, international

(1) **oversea** shipments, (2) for **oversea** use

The company enhanced **oversea** operations to tap into new markets.

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.

debate

n. a formal discussion or argument of opposing viewpoints, often to persuade others to adopt a specific position; a public discussion, often on an issue of current interest, in which participants offer opinions and differing perspectives

synonym: argument, discussion, dispute

(1) **debate** topic, (2) **debate** competition

The **debate** over climate change continues to be a hot topic in politics.

gravity

n. the force that attracts a body towards the center of the earth or towards any other physical body having mass; a manner that is solemn

synonym: heaviness, attraction, weight

(1) the attraction of **gravity**, (2) preserve my **gravity**

The astronaut felt weightless in space due to the absence of **gravity**.

framework

n. the structural components of a building or object that support its weight and give it form; the underlying structure of a system, concept, or text

synonym: structure, scheme, foundation

(1) legal **framework**, (2) the **framework** of a house

He devised a new analytical **framework** to capture the phenomenon.

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.

confidence

n. the feeling or attitude that one can trust or rely on the abilities or good qualities of someone or something

synonym : self-trust, certainty, belief

(1) **confidence** as a teacher, (2) boost my **confidence**

Skill and **confidence** are an unconquered army.

critic

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

synonym : pundit, analyst, attacker

(1) art **critic**, (2) severe **critic**

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

compute

v. to make a mathematical calculation

synonym : calculate

(1) **compute** an average score, (2) **compute** the value

I tried to **compute** the efficiency of the investment.

mysterious

adj. difficult to understand, explain, or identify; having an aura of secrecy, intrigue, or puzzlement

synonym : enigmatic, cryptic, puzzling

(1) **mysterious** object, (2) **mysterious** stranger

The **mysterious** disappearance of the ship remains unsolved.

far-off

adj. distant in time or space; remote; distant or unlikely to happen

synonym : distant, remote, faraway

(1) **far-off** lands, (2) **far-off** memories

The **far-off** galaxy was only visible through a powerful telescope.

helpless

adj. unable to take care of oneself or to do things without help

synonym : defenseless, powerless, susceptible

(1) **helpless** baby, (2) **helpless** victims
I feel so **helpless** without you.

curiosity

n. a strong desire to know or learn about something
synonym: interest, inquisitiveness, novelty

(1) boundless **curiosity**, (2) satisfy my intellectual **curiosity**
We are motivated by **curiosity** rather than necessity.

embarrass

v. to cause someone to feel awkward, worried, or ashamed
synonym: disconcert, unsettle, agitate

(1) **embarrass** political enemy, (2) **embarrass** my project
He looked for an opportunity to **embarrass** that actor in public.

blame

v. to think or say that someone or something did something wrong or is responsible for something bad
synonym: condemn, rebuke, find fault with

(1) **blame** circumstances for the failure, (2) **blame** the lack of knowledge
We **blamed** our impeded progress on lack of money.

independence

n. freedom from another's or others' control or influence
synonym: freedom, liberty, autonomy

(1) financial **independence**, (2) **independence** ceremony
There is nothing more valuable than **independence** and freedom.

climate

n. the weather in a particular location averaged over some long period

synonym: atmosphere, weather, environment

(1) a cold **climate**, (2) effects of **climate** change
Climate and weather have an impact on every part of our lifestyles.

conflict

n. a strong disagreement, argument, or a violent clash between two opposing groups or individuals

synonym : clash, discord, competition

(1) the **conflict** between good and evil, (2) the longstanding **conflict**

He and I often had **conflicts**, not only in personality but also in ideology.

negotiate

v. to have formal discussions with someone to reach an agreement

synonym : discuss, mediate, bargain

(1) **negotiate** a settlement, (2) **negotiate** the price of the house

We are always happy to **negotiate** a discount.

boundary

n. a real or imaginary line that marks the limit or extent of something and separates it from other things or places

synonym : border, frontier, limitation

(1) geographical **boundary**, (2) the **boundary** between reality and fantasy

He wandered the **boundary** between life and death by gunfire.

remarkable

adj. worthy of attention because unusual or special

synonym : outstanding, exceptional, extraordinary

(1) **remarkable** achievement, (2) the **remarkable** breadth of knowledge

The election was a **remarkable** success for the Whigs.

constant

adj. happening repeatedly or all the time

synonym : ceaseless, stable, unchanging

(1) a **constant** wind, (2) a **constant** temperature

Constant dropping wears away the stone.

drift

v. to move smoothly and slowly in water or air, especially as a result of outside forces, with no control over the direction

synonym : float, wander, freewheel

(1) **drift** down the stream, (2) **drift** away on a raft
I **drifted** around for years in Europe before going to university.

brain

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

synonym: intellect, mind, encephalon

(1) basic **brain** function, (2) permanent **brain** damage
X-rays revealed a small tumor in his **brain**.

conscious

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

synonym: aware, cognizant, deliberate

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

odd

adj. strange or unexpected; not divisible by two

synonym: strange, bizarre, abnormal

(1) in an **odd** way, (2) **odd** behavior
His grandfather was an **odd** man.

entertaining

adj. providing enjoyment or amusement, especially through being lively or amusing

synonym: amusing, diverting, engaging

(1) **entertaining** puppet show, (2) very **entertaining** book
The magician's act was **entertaining** and kept the audience on the edge of their seats.

spill

v. to cause or allow liquid to run or flow over the edge of its container by accident

synonym: slop, drop, scatter

(1) **spill** a bit of wine, (2) **spill** my heart
He was determined to **spill** everything.

acquire

v. to buy or obtain something such as an asset, object, knowledge, etc., for oneself

synonym:

attain, earn, catch

(1) **acquire** knowledge, (2) **acquire** a new company
Children **acquire** language at a fantastic rate.

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.

tap

v. to hit someone or something quickly, gently, and often
repeatedly; to use existing resources, such as energy,
knowledge, etc.

synonym: knock, exploit, use

(1) **tap** a new market, (2) **tap** keyboard with an index finger
To expand the company, we must **tap** new human resources.

rim

n. the edge of something in the shape of a more or less
circular object

synonym: boundary, lip, edge

(1) **rim** of the ear, (2) crater **rim**
The water level was even with the basin's **rim**.

ambitious

adj. having a great desire to attain achievement, power, or
wealth

synonym: enterprising, challenging, earnest

(1) achieve **ambitious** goals, (2) with an **ambitious** eye
Their company has been in business for a short time but has
ambitious goals.

investigate

v. to conduct a systematic or formal inquiry to identify and
evaluate the facts of a crime, problem, statement, etc. to
establish the truth

synonym: examine, analyze, look into

(1) **investigate** the matter, (2) **investigate** a data leak
The committee **investigated** several apparent

inconsistencies.

Session 2: Spelling

- | | |
|-----------------------------------|--|
| 1. fill the fr___e | <i>n.</i> a piece of electrical equipment in which food can be stored at low temperatures so that it stays fresh |
| 2. r_t with age | <i>v.</i> to decay, or cause something to decay, naturally and gradually |
| 3. und_____ate course | <i>n.</i> a student who is studying for their first degree at a university or other higher education institution |
| 4. the con_____ion law of physics | <i>n.</i> the protection of something important, such as the natural environment or artificial structures, especially from the damaging effects of human activity |
| 5. an egg sh__l | <i>n.</i> hard outer covering or case of eggs, nuts, some seeds, and some animals |
| 6. de_____cy advocate | <i>n.</i> a form of government in which the people have the authority to deliberate and decide legislation, or to choose governing officials to do so |
| 7. ad_____e the technology | <i>v.</i> to go or move forward; to develop in a positive way |
| 8. t_g at his hand | <i>v.</i> to pull something quickly and hard, often several times |
| 9. f__z with life | <i>v.</i> to make a hissing or bubbling sound, often accompanied by the release of gas or effervescence; to be lively, exciting, or effervescent in character or atmosphere; (noun) the sound, process, or result of something producing small bubbles |

ANSWERS: 1. fridge, 2. rot, 3. undergraduate, 4. conservation, 5. shell, 6. democracy, 7. advance, 8. tug, 9. fizz

10. p__h district *adj.* elegant, fashionable, or luxurious, often to an excessive or ostentatious degree; associated with the upper classes or a high level of social status
11. Ne_____an physics *adj.* relating to Sir Isaac Newton or his laws of motion and universal gravitation
12. s__t beliefs *n.* a group of people who follow a particular religious or philosophical belief system, especially one that is regarded as outside the norm or mainstream
13. colorless li____d *n.* a substance, such as water or oil that flows freely and is neither a solid nor a gas
14. me_____cs equation *n.* the branch of physics that deals with the study of motion, forces, and energy; (mechanic) someone whose occupation is repairing and maintaining automobiles
15. have a b__s toward socialism *n.* a strong feeling in favor of or against one group of people, an idea, or thing, often not based on fair judgment
16. o_d behavior *adj.* strange or unexpected; not divisible by two
17. de___e topic *n.* a formal discussion or argument of opposing viewpoints, often to persuade others to adopt a specific position; a public discussion, often on an issue of current interest, in which participants offer opinions and differing perspectives

ANSWERS: 10. posh, 11. Newtonian, 12. sect, 13. liquid, 14. mechanics, 15. bias, 16. odd, 17. debate

18. s__n thread out of cotton *v.* to cause something to rotate rapidly; to cause someone to feel dizzy or disoriented
19. per_____on of a stimulus *n.* a belief, opinion, or image you have based on how you regard, understand, or interpret something; the ability to see, hear, or notice something through the senses
20. pho_____ph memories *n.* a picture or image that is produced by a camera; a visual representation or record of a person, object, or scene that has been captured electronically or on film
21. app_____ly simple *adv.* based on what you have heard or read
22. co____r honor *v.* to have a meeting or discussion to come to a decision or agreement or exchange ideas; to bestow something
23. tu_____e aerofoil *n.* a machine that rotates to generate power from fluids such as water or gas
24. Doppler sh__t *n.* a slight transition in position, direction, or trend
25. basic br__n function *n.* the organ inside the head that is responsible for one's movement, thought, memory, and feeling
26. ind_____nce ceremony *n.* freedom from another's or others' control or influence
27. cl_____et player *n.* a musical instrument of the woodwind family, with a single reed, a cylindrical bore, and a curved mouthpiece, known for its versatility and rich, warm tone

ANSWERS: 18. spin, 19. perception, 20. photograph, 21. apparently, 22. confer, 23. turbine, 24. shift, 25. brain, 26. independence, 27. clarinet

28. the rem_____le breadth of knowledge *adj.* worthy of attention because unusual or special
29. Egyptian hie_____ph *n.* a writing system using picture symbols, such as the one used in ancient Egypt
30. mys_____us stranger *adj.* difficult to understand, explain, or identify; having an aura of secrecy, intrigue, or puzzlement
31. theoretical ph_____st *n.* a scientist who specializes in the field of physics
32. det_____tic approach *adj.* characterized by an assumption of cause and effect and the absence of chance or randomness, often used to describe scientific or engineering calculations
33. sp__l my heart *v.* to cause or allow liquid to run or flow over the edge of its container by accident
34. t_p keyboard with an index finger *v.* to hit someone or something quickly, gently, and often repeatedly; to use existing resources, such as energy, knowledge, etc.
35. postpone a meeting ind_____ely *adv.* without any fixed or definite limit; for an unknown or unspecified period of time
36. pho_____ph album *n.* a picture or image that is produced by a camera; a visual representation or record of a person, object, or scene that has been captured electronically or on film
37. the longstanding co_____ct *n.* a strong disagreement, argument, or a violent clash between two opposing groups or individuals

ANSWERS: 28. remarkable, 29. hieroglyph, 30. mysterious, 31. physicist, 32. deterministic, 33. spill, 34. tap, 35. indefinitely, 36. photograph, 37. conflict

38. ma____e amounts *adj.* enormous amount; very heavy and solid
39. bl__e the lack of knowledge *v.* to think or say that someone or something did something wrong or is responsible for something bad
40. he____ss victims *adj.* unable to take care of oneself or to do things without help
41. con_____ce as a teacher *n.* the feeling or attitude that one can trust or rely on the abilities or good qualities of someone or something
42. go there af_____rd *adv.* after the time mentioned
43. ov_____a shipments *adj.* situated or operating beyond national boundaries; in, from, or to foreign countries
44. dis_____ent in the result *n.* the feeling of sadness, frustration, or dissatisfaction that arises when something does not live up to one's expectations or hopes
45. ro___e crops *v.* to turn around a central point or axis; to move in a circular path around something
46. p__h restaurant *adj.* elegant, fashionable, or luxurious, often to an excessive or ostentatious degree; associated with the upper classes or a high level of social status
47. co___r degree *v.* to have a meeting or discussion to come to a decision or agreement or exchange ideas; to bestow something
48. or___t my thinking *v.* to position or adjust someone or something for a particular purpose; (noun) the countries of Asia

ANSWERS: 38. massive, 39. blame, 40. helpless, 41. confidence, 42. afterward, 43. oversea, 44. disappointment, 45. rotate, 46. posh, 47. confer, 48. orient

49. fa____f memories *adj.* distant in time or space; remote; distant or unlikely to happen
50. ob____s reasons *adj.* easy to see, discover or understand
51. gr____e with problem *v.* to make a strenuous effort to solve a problem; to engage in a close fight or conflict without weapons
52. pro______tic approach *adj.* characterized by the influence of chance or probability; involving the use of statistical models or methods to estimate likelihoods or risks
53. pro______tic model *adj.* characterized by the influence of chance or probability; involving the use of statistical models or methods to estimate likelihoods or risks
54. ro___e about the origin *v.* to turn around a central point or axis; to move in a circular path around something
55. the con____ce of an argument *n.* the outcome of a particular action or event, especially relative to an individual
56. charged pa____le *n.* a small piece of something; a word or piece of a term with grammatical function but little or no significance
57. begin to r_t *v.* to decay, or cause something to decay, naturally and gradually
58. inv____te a data leak *v.* to conduct a systematic or formal inquiry to identify and evaluate the facts of a crime, problem, statement, etc. to establish the truth

ANSWERS: 49. far-off, 50. obvious, 51. grapple, 52. probabilistic, 53. probabilistic, 54. rotate, 55. consequence, 56. particle, 57. rot, 58. investigate

59. vo____o alert level *n.* a mountain or hill, typically conical, having a crater or vent through which lava, rock fragments, hot vapor, and gas are or have been erupted from the earth's crust.
60. 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
61. sp____ng wheel *n.* the act of rotating rapidly around an axis; in the context of textiles, the process of twisting fibers together to form thread or yarn
62. engineering und______ate *n.* a student who is studying for their first degree at a university or other higher education institution
63. a per____ve view *n.* a confident attitude toward something; a particular style of thinking about something
64. def____ly become a problem *adv.* without any question and beyond doubt; clearly
65. a mollusk sh__l *n.* hard outer covering or case of eggs, nuts, some seeds, and some animals
66. sl____ly alkaline soils *adv.* in a small degree or extent; a little
67. soil con____ion *n.* the protection of something important, such as the natural environment or artificial structures, especially from the damaging effects of human activity
68. dis____ent with the service *n.* the feeling of sadness, frustration, or dissatisfaction that arises when something does not live up to one's expectations or hopes

ANSWERS: 59. volcano, 60. basis, 61. spinning, 62. undergraduate, 63. perspective, 64. definitely, 65. shell, 66. slightly, 67. conservation, 68. disappointment

69. br____n their horizon *v.* to make or become wider or more extensive; to make or become more tolerant or liberal.
70. m_m's cooking *n.* a British term for "mom" or "mother"; (adjective) failing to speak or communicate when expected to do so
71. talented ph____st *n.* a scientist who specializes in the field of physics
72. boundless cu____ty *n.* a strong desire to know or learn about something
73. t_y store *n.* a thing, typically a small model or replica of something that is played with, especially by children
74. cognitive com____ty *n.* the state or quality of being complicated or intricate and difficult to understand
75. so__d employment measures *adj.* hard or firm; characterized by good substantial quality
76. an____r mountain ridge *adj.* measured by an angle or by the rate of change of an angle; having angles or an angular shape
77. a we__d dress *adj.* extraordinary, unexpected, or difficult to explain
78. a st__n look *adj.* serious, unyielding, or strict in manner or attitude
79. an associate ju__e *n.* a person who makes decisions in a court of law; (verb) to determine the result of or form a critical opinion of something
80. the fr____rk of a house *n.* the structural components of a building or object that support its weight and give it form; the underlying structure of a system, concept, or text

ANSWERS: 69. broaden, 70. mum, 71. physicist, 72. curiosity, 73. toy, 74. complexity, 75. solid, 76. angular, 77. weird, 78. stern, 79. judge, 80. framework

81. ind_____ely suspended *adv.* without any fixed or definite limit; for an unknown or unspecified period of time
82. a binocular te_____pe *n.* a device like a tube in shape containing lenses used to magnify and observe distant objects
83. dy_____cs of group *n.* the branch of mechanics that deals with the motion of bodies under the action of forces, including the particular case in which a body remains at rest; forces that produce or stimulate movement, growth, or change
84. shopping re____ds cards *n.* a thing given in acknowledgment of service, hard work, achievement, etc.
85. a br__d mind *adj.* very wide; general
86. the state of being we__d *adj.* extraordinary, unexpected, or difficult to explain
87. in an o_d way *adj.* strange or unexpected; not divisible by two
88. as____s a tax of 10 pounds *v.* to judge or decide the nature or quality of someone or something
89. a gr__h sample *n.* a picture consisting of a line, lines, points, etc., that shows how two or more sets of certain quantities are related to each other
90. in_____ce between gas and liquid *n.* (computer science) a program that controls a display for the user and that allows the user to interact with the system; (chemistry) a surface forming a common boundary between two things

ANSWERS: 81. indefinitely, 82. telescope, 83. dynamics, 84. reward, 85. broad, 86. weird, 87. odd, 88. assess, 89. graph, 90. interface

91. the hieroglyph of the bird *n.* a writing system using picture symbols, such as the one used in ancient Egypt
92. slice of toast *n.* slices of bread browned on both sides that have been put near a high heat; a drink in honor of or to the health of a person or even
93. involve a high degree of risk *v.* to include or affect someone or something as a necessary part of something else
94. a cold climate *n.* the weather in a particular location averaged over some long period
95. sleeve length *n.* a part of a garment that covers all or part of an arm
96. a young businessperson *n.* a person who is engaged in business, typically as an owner or executive
97. suit at law *n.* a set of clothes that are made from the same material; a claim or complaint that a person or organization can file in court against another party; (verb) to be fit or acceptable for
98. lab instrument *n.* a workplace for the conduct of scientific research; a laboratory
99. chapter of a political party *n.* a separate section of a written work usually numbered and titled
100. dynamics of economy *n.* the branch of mechanics that deals with the motion of bodies under the action of forces, including the particular case in which a body remains at rest; forces that produce or stimulate movement, growth, or change

ANSWERS: 91. hieroglyph, 92. toast, 93. involve, 94. climate, 95. sleeve, 96. businessperson, 97. suit, 98. lab, 99. chapter, 100. dynamics

101. di____s a person from the office *v.* to regard something or someone as not important and not worth considering; to terminate someone's employment
102. boost my con_____ce *n.* the feeling or attitude that one can trust or rely on the abilities or good qualities of someone or something
103. inertial navigation gy_____pe *n.* a device consisting of a spinning wheel or disk mounted in such a way that it can rotate freely in any direction, used to maintain balance, stability, or orientation in navigation, aerospace, or other systems
104. very ent_____ing book *adj.* providing enjoyment or amusement, especially through being lively or amusing
105. inv_____te the matter *v.* to conduct a systematic or formal inquiry to identify and evaluate the facts of a crime, problem, statement, etc. to establish the truth
106. s__t and tie restaurant *n.* a set of clothes that are made from the same material; a claim or complaint that a person or organization can file in court against another party; (verb) to be fit or acceptable for
107. co_____e in midair *v.* to hit something violently when moving
108. secret s__t *n.* a group of people who follow a particular religious or philosophical belief system, especially one that is regarded as outside the norm or mainstream

ANSWERS: 101. dismiss, 102. confidence, 103. gyroscope, 104. entertaining, 105. investigate, 106. suit, 107. collide, 108. sect

109. a convivial atm_____re *n.* the mass of air that surrounds the Earth; the pervading tone or mood of a place, situation, or creative work
110. do_____n-watching tour *n.* a marine mammal that typically has a beaklike snout, a streamlined body, and flippers and that feeds on fish and squid
111. b__t into several people *v.* to strike or push something with the flat end of your hip or buttocks; to hit or knock forcefully; (noun) the remaining end of a smoked cigarette
112. his conclusion was ob_____s *adj.* easy to see, discover or understand
113. ra____n pie *n.* a dried grape, typically made from certain varieties of grapes that are specifically grown for this purpose; a popular snack food or baking ingredient
114. crater r_m *n.* the edge of something in the shape of a more or less circular object
115. series of exp_____nts *n.* the scientific test conducted to observe what happens and gain new knowledge
116. effects of cl_____e change *n.* the weather in a particular location averaged over some long period
117. vertical a__s *n.* a real or imaginary straight line through a body or figure around which the object turns; a group of countries in special alliance
118. exp_____nt design *n.* the scientific test conducted to observe what happens and gain new knowledge
119. fr____e magnet *n.* a piece of electrical equipment in which food can be stored at low temperatures so that it stays fresh

ANSWERS: 109. atmosphere, 110. dolphin, 111. butt, 112. obvious, 113. raisin, 114. rim, 115. experiment, 116. climate, 117. axis, 118. experiment, 119. fridge

120. co_____e the value *v.* to make a mathematical calculation
121. art cr____c *n.* someone who expresses opinions about the quality of books, music, etc.
122. ma____t attraction *n.* an object or substance that can attract certain materials, such as iron or steel
123. tu_____e energy *n.* a machine that rotates to generate power from fluids such as water or gas
124. dr__t down the stream *v.* to move smoothly and slowly in water or air, especially as a result of outside forces, with no control over the direction
125. he_____ss baby *adj.* unable to take care of oneself or to do things without help
126. gy_____pe sensor *n.* a device consisting of a spinning wheel or disk mounted in such a way that it can rotate freely in any direction, used to maintain balance, stability, or orientation in navigation, aerospace, or other systems
127. the most am_____g feeling *adj.* extremely surprising, especially in a way that you like or admire
128. laws of ph_____s *n.* the science of matter and energy and their interactions
129. mu_____e affairs *adj.* very ordinary and therefore lacking interest or excitement
130. co_____e an average score *v.* to make a mathematical calculation
131. so__d ally *adj.* hard or firm; characterized by good substantial quality
132. pre-mo____n agricultural society *adj.* of or belonging to the present time or recent times

ANSWERS: 120. compute, 121. critic, 122. magnet, 123. turbine, 124. drift, 125. helpless, 126. gyroscope, 127. amazing, 128. physics, 129. mundane, 130. compute, 131. solid, 132. modern

133. principles of de_____cy *n.* a form of government in which the people have the authority to deliberate and decide legislation, or to choose governing officials to do so
134. keen per_____on *n.* a belief, opinion, or image you have based on how you regard, understand, or interpret something; the ability to see, hear, or notice something through the senses
135. increase sl_____ly *adv.* in a small degree or extent; a little
136. ra____n oatmeal cookies *n.* a dried grape, typically made from certain varieties of grapes that are specifically grown for this purpose; a popular snack food or baking ingredient
137. hazardous li____d *n.* a substance, such as water or oil that flows freely and is neither a solid nor a gas
138. the laws of the_____ics *n.* the area of physics that deals with heat, work, and temperature and their relation to energy, entropy, and the physical properties of matter and radiation
139. look through a te_____pe *n.* a device like a tube in shape containing lenses used to magnify and observe distant objects
140. drink a to__t *n.* slices of bread browned on both sides that have been put near a high heat; a drink in honor of or to the health of a person or even
141. learn new co_____ts *n.* an idea or principle associated with something abstract

ANSWERS: 133. democracy, 134. perception, 135. slightly, 136. raisin, 137. liquid, 138. thermodynamics, 139. telescope, 140. toast, 141. concept

142. t_p a new market *v.* to hit someone or something quickly, gently, and often repeatedly; to use existing resources, such as energy, knowledge, etc.
143. a mod_____ion of last year's model *n.* the act of changing something, usually to improve it, or something changed
144. app_____ly unrelated *adv.* based on what you have heard or read
145. unintended con_____ces *n.* the outcome of a particular action or event, especially relative to an individual
146. rem_____le achievement *adj.* worthy of attention because unusual or special
147. ju__e a competition *n.* a person who makes decisions in a court of law; (verb) to determine the result of or form a critical opinion of something
148. a wide sl___e *n.* a part of a garment that covers all or part of an arm
149. gr_____e with each other *v.* to make a strenuous effort to solve a problem; to engage in a close fight or conflict without weapons
150. me__y handling *adj.* disorganized and untidy
151. mys_____us object *adj.* difficult to understand, explain, or identify; having an aura of secrecy, intrigue, or puzzlement
152. se_____ly, it is important *adv.* used to introduce the second point or item in a list or series of statements, considerations, etc.

ANSWERS: 142. tap, 143. modification, 144. apparently, 145. consequence, 146. remarkable, 147. judge, 148. sleeve, 149. grapple, 150. messy, 151. mysterious, 152. secondly

153. em_____ss my project *v.* to cause someone to feel awkward, worried, or ashamed
154. in_____e a lot of paperwork *v.* to include or affect someone or something as a necessary part of something else
155. ent_____ing puppet show *adj.* providing enjoyment or amusement, especially through being lively or amusing
156. as____s the quality *v.* to judge or decide the nature or quality of someone or something
157. com_____ty theory *n.* the state or quality of being complicated or intricate and difficult to understand
158. co_____t car *n.* an idea or principle associated with something abstract
159. bl__e circumstances for the failure *v.* to think or say that someone or something did something wrong or is responsible for something bad
160. probabilistic qu_____m theory *n.* the smallest amount or unit of something, especially (electromagnetic) energy
161. 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
162. br_____n students' knowledge *v.* to make or become wider or more extensive; to make or become more tolerant or liberal.

ANSWERS: 153. embarrass, 154. involve, 155. entertaining, 156. assess, 157. complexity, 158. concept, 159. blame, 160. quantum, 161. process, 162. broaden

163. legal fr_____rk *n.* the structural components of a building or object that support its weight and give it form; the underlying structure of a system, concept, or text
164. the Italian fr_____er with Switzerland *n.* a border that separates two countries, or the area near this line
165. thermal expansion coe_____nt *n.* a numerical measure of a specific property or characteristic of a substance or system that is used in mathematical equations or formulas to predict behavior or outcomes; a factor that expresses the change in one variable per unit change in another variable
166. a co_____nt wind *adj.* happening repeatedly or all the time
167. the user in_____ce *n.* (computer science) a program that controls a display for the user and that allows the user to interact with the system; (chemistry) a surface forming a common boundary between two things
168. a s__t on his honor *n.* a particular location or place; a small round or roundish area, differing in color or feels from the surface around it
169. dr__t away on a raft *v.* to move smoothly and slowly in water or air, especially as a result of outside forces, with no control over the direction
170. the g_p between ideal and reality *n.* a conspicuous disparity or difference separates something such as a figure, people, their opinions, situation, etc.
171. medical l_b *n.* a workplace for the conduct of scientific research; a laboratory

ANSWERS: 163. framework, 164. frontier, 165. coefficient, 166. constant, 167. interface, 168. spot, 169. drift, 170. gap, 171. lab

172. t_y box *n.* a thing, typically a small model or replica of something that is played with, especially by children
173. 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
174. permanent ma___t *n.* an object or substance that can attract certain materials, such as iron or steel
175. permanent br__n damage *n.* the organ inside the head that is responsible for one's movement, thought, memory, and feeling
176. satisfy my intellectual cu_____ty *n.* a strong desire to know or learn about something
177. me_____cs of the game *n.* the branch of physics that deals with the study of motion, forces, and energy; (mechanic) someone whose occupation is repairing and maintaining automobiles
178. gr__h theory *n.* a picture consisting of a line, lines, points, etc., that shows how two or more sets of certain quantities are related to each other
179. with an am_____us eye *adj.* having a great desire to attain achievement, power, or wealth
180. the co_____ct between good and evil *n.* a strong disagreement, argument, or a violent clash between two opposing groups or individuals
181. co_____us effort *adj.* being aware of and able to respond to what is happening around you

ANSWERS: 172. toy, 173. planet, 174. magnet, 175. brain, 176. curiosity, 177. mechanics, 178. graph, 179. ambitious, 180. conflict, 181. conscious

182. form a nu____s *n.* the central and most important part of something; (biology) a part of the cell containing DNA and RNA and responsible for growth and reproduction; (physics) the very dense central region of an atom
183. se_____ly connected *adv.* used to introduce the second point or item in a list or series of statements, considerations, etc.
184. ac_____e a new company *v.* to buy or obtain something such as an asset, object, knowledge, etc., for oneself
185. imp_____ve performances *adj.* arousing admiration due to size, quality, or skill
186. em_____ss political enemy *v.* to cause someone to feel awkward, worried, or ashamed
187. t_g a rope *v.* to pull something quickly and hard, often several times
188. economic bu____e *n.* a thin, round, and often transparent mass of gas that is surrounded by a thin layer of liquid; a state of economic or social prosperity that is unsustainable and eventually collapses
189. the nu____s of a team *n.* the central and most important part of something; (biology) a part of the cell containing DNA and RNA and responsible for growth and reproduction; (physics) the very dense central region of an atom
190. ac_____te measurements *adj.* correct and exact in all details

ANSWERS: 182. nucleus, 183. secondly, 184. acquire, 185. impressive, 186. embarrass, 187. tug, 188. bubble, 189. nucleus, 190. accurate

191. mo___n poetry *adj.* of or belonging to the present time or recent times
192. dem_____ion project *n.* a display or show, often of a particular skill or product, intended to convince or persuade others
193. carbon dioxide in the atm_____re *n.* the mass of air that surrounds the Earth; the pervading tone or mood of a place, situation, or creative work
194. cigarette b__t *v.* to strike or push something with the flat end of your hip or buttocks; to hit or knock forcefully; (noun) the remaining end of a smoked cigarette
195. 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
196. ina_____ble areas *adj.* unable to travel to or reach; not available
197. s__n a top *v.* to cause something to rotate rapidly; to cause someone to feel dizzy or disoriented
198. do_____n show *n.* a marine mammal that typically has a beaklike snout, a streamlined body, and flippers and that feeds on fish and squid
199. 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
200. an_____r momentum *adj.* measured by an angle or by the rate of change of an angle; having angles or an angular shape

ANSWERS: 191. modern, 192. demonstration, 193. atmosphere, 194. butt, 195. universe, 196. inaccessible, 197. spin, 198. dolphin, 199. discovery, 200. angular

201. for ov_____a use *adj.* situated or operating beyond national boundaries; in, from, or to foreign countries
202. the per_____ve of the battle *n.* a confident attitude toward something; a particular style of thinking about something
203. ne_____te the price of the house *v.* to have formal discussions with someone to reach an agreement
204. det_____tic system *adj.* characterized by an assumption of cause and effect and the absence of chance or randomness, often used to describe scientific or engineering calculations
205. preserve my gr_____y *n.* the force that attracts a body towards the center of the earth or towards any other physical body having mass; a manner that is solemn
206. ina_____ble to an unauthorized user *adj.* unable to travel to or reach; not available
207. water re_____ir *n.* a natural or artificial lake used to store water for community use; a large or extra supply of something
208. provide ac_____te information *adj.* correct and exact in all details
209. an introductory ch_____r *n.* a separate section of a written work usually numbered and titled
210. ne_____te a settlement *v.* to have formal discussions with someone to reach an agreement
211. br_____nt idea *adj.* extremely clever, skilled, or impressive

ANSWERS: 201. oversea, 202. perspective, 203. negotiate, 204. deterministic, 205. gravity, 206. inaccessible, 207. reservoir, 208. accurate, 209. chapter, 210. negotiate, 211. brilliant

212. modern co_____gy *n.* the scientific study of the nature and origin of the universe
213. major paradigm sh__t *n.* a slight transition in position, direction, or trend
214. am_____g advances *adj.* extremely surprising, especially in a way that you like or admire
215. absorption coe_____nt *n.* a numerical measure of a specific property or characteristic of a substance or system that is used in mathematical equations or formulas to predict behavior or outcomes; a factor that expresses the change in one variable per unit change in another variable
216. geographical bo_____ry *n.* a real or imaginary line that marks the limit or extent of something and separates it from other things or places
217. ac_____e knowledge *v.* to buy or obtain something such as an asset, object, knowledge, etc., for oneself
218. dynamic vi_____ty *n.* the state or quality of being thick, sticky, and semi-fluid in consistency; resistance to flow
219. me__y data *adj.* disorganized and untidy
220. de___e competition *n.* a formal discussion or argument of opposing viewpoints, often to persuade others to adopt a specific position; a public discussion, often on an issue of current interest, in which participants offer opinions and differing perspectives

ANSWERS: 212. cosmology, 213. shift, 214. amazing, 215. coefficient, 216. boundary, 217. acquire, 218. viscosity, 219. messy, 220. debate

221. a re_____ir of facts *n.* a natural or artificial lake used to store water for community use; a large or extra supply of something
222. a campus dem_____ion *n.* a display or show, often of a particular skill or product, intended to convince or persuade others
223. b__s against a big company *n.* a strong feeling in favor of or against one group of people, an idea, or thing, often not based on fair judgment
224. co_____e head-on *v.* to hit something violently when moving
225. f__z up after the speech *v.* to make a hissing or bubbling sound, often accompanied by the release of gas or effervescence; to be lively, exciting, or effervescent in character or atmosphere; (noun) the sound, process, or result of something producing small bubbles
226. a few years af_____rd *adv.* after the time mentioned
227. Ne_____an mechanics *adj.* relating to Sir Isaac Newton or his laws of motion and universal gravitation
228. 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
229. bus_____son network *n.* a person who is engaged in business, typically as an owner or executive
230. sp_____ng machine *n.* the act of rotating rapidly around an axis; in the context of textiles, the process of twisting fibers together to form thread or yarn

ANSWERS: 221. reservoir, 222. demonstration, 223. bias, 224. collide, 225. fizz, 226. afterward, 227. Newtonian, 228. planet, 229. businessperson, 230. spinning

231. a co_____nt temperature *adj.* happening repeatedly or all the time
232. accordance with app_____le law *adj.* fit or suitable to be applied; having relevance to a person or thing
233. achieve am_____us goals *adj.* having a great desire to attain achievement, power, or wealth
234. laws of qu_____m mechanics *n.* the smallest amount or unit of something, especially (electromagnetic) energy
235. financial ind_____nce *n.* freedom from another's or others' control or influence
236. fun_____al rights *adj.* forming an essential base or core from which everything else develops or is affected
237. attract br__d attention *adj.* very wide; general
238. br_____nt performance *adj.* extremely clever, skilled, or impressive
239. 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
240. physical co_____gy *n.* the scientific study of the nature and origin of the universe
241. 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
242. the bo_____ry between reality and fantasy *n.* a real or imaginary line that marks the limit or extent of something and separates it from other things or places

ANSWERS: 231. constant, 232. applicable, 233. ambitious, 234. quantum, 235. independence, 236. fundamental, 237. broad, 238. brilliant, 239. basis, 240. cosmology, 241. universe, 242. boundary

243. cl____et reed *n.* a musical instrument of the woodwind family, with a single reed, a cylindrical bore, and a curved mouthpiece, known for its versatility and rich, warm tone
244. co_____us of having succeeded *adj.* being aware of and able to respond to what is happening around you
245. ad_____e a cooperative relationship *v.* to go or move forward; to develop in a positive way
246. distance g_p *n.* a conspicuous disparity or difference separates something such as a figure, people, their opinions, situation, etc.
247. say def_____ly *adv.* without any question and beyond doubt; clearly
248. pa_____le energy *n.* a small piece of something; a word or piece of a term with grammatical function but little or no significance
249. further mod_____ion *n.* the act of changing something, usually to improve it, or something changed
250. beauty s__t *n.* a particular location or place; a small round or roundish area, differing in color or feels from the surface around it
251. the exotic flavor of the Or____t *v.* to position or adjust someone or something for a particular purpose; (noun) the countries of Asia
252. a coordinate a__s *n.* a real or imaginary straight line through a body or figure around which the object turns; a group of countries in special alliance
253. bu___e in the champagne glass *n.* a thin, round, and often transparent mass of gas that is surrounded by a thin layer of liquid; a state of economic or social prosperity that is unsustainable and eventually collapses

ANSWERS: 243. clarinet, 244. conscious, 245. advance, 246. gap, 247. definitely, 248. particle, 249. modification, 250. spot, 251. orient, 252. axis, 253. bubble

254. fr_____er disputes *n.* a border that separates two countries, or the area near this line
255. di_____s a matter with a laugh *v.* to regard something or someone as not important and not worth considering; to terminate someone's employment
256. mu_____e objects *adj.* very ordinary and therefore lacking interest or excitement
257. re_____ve factors *adj.* considered and evaluated through comparison with something else
258. st__n warning *adj.* serious, unyielding, or strict in manner or attitude
259. a remote re_____ve *adj.* considered and evaluated through comparison with something else
260. give app_____le examples *adj.* fit or suitable to be applied; having relevance to a person or thing
261. nuclear ph_____s *n.* the science of matter and energy and their interactions
262. fa_____f lands *adj.* distant in time or space; remote; distant or unlikely to happen
263. 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
264. active vo_____o *n.* a mountain or hill, typically conical, having a crater or vent through which lava, rock fragments, hot vapor, and gas are or have been erupted from the earth's crust.

ANSWERS: 254. frontier, 255. dismiss, 256. mundane, 257. relative, 258. stern, 259. relative, 260. applicable, 261. physics, 262. far-off, 263. process, 264. volcano

265. applied the _____ ics *n.* the area of physics that deals with heat, work, and temperature and their relation to energy, entropy, and the physical properties of matter and radiation
266. r_m of the ear *n.* the edge of something in the shape of a more or less circular object
267. keep m_m *n.* a British term for "mom" or "mother"; (adjective) failing to speak or communicate when expected to do so
268. fun _____ al education *adj.* forming an essential base or core from which everything else develops or is affected
269. ma _____ e stars *adj.* enormous amount; very heavy and solid
270. high vi _____ ty *n.* the state or quality of being thick, sticky, and semi-fluid in consistency; resistance to flow
271. the attraction of gr _____ y *n.* the force that attracts a body towards the center of the earth or towards any other physical body having mass; a manner that is solemn
272. severe cr _____ c *n.* someone who expresses opinions about the quality of books, music, etc.
273. the re _____ d for good works *n.* a thing given in acknowledgment of service, hard work, achievement, etc.
274. an imp _____ ve array of facts *adj.* arousing admiration due to size, quality, or skill
275. sp _____ l a bit of wine *v.* to cause or allow liquid to run or flow over the edge of its container by accident

ANSWERS: 265. thermodynamics, 266. rim, 267. mum, 268. fundamental, 269. massive, 270. viscosity, 271. gravity, 272. critic, 273. reward, 274. impressive, 275. spill

276. 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

ANSWERS: 276. discovery

Session 3: Fill in the Blanks

1. He studied _____ in college and now works as an engineer.
n. the branch of physics that deals with the study of motion, forces, and energy; (mechanic) someone whose occupation is repairing and maintaining automobiles
2. The police _____ believed this explanation was plausible.
adv. based on what you have heard or read
3. Advocates for legal reform hear less harsh words from their _____.
n. someone who expresses opinions about the quality of books, music, etc.
4. _____ often entails inclusive capitalism as well.
n. a form of government in which the people have the authority to deliberate and decide legislation, or to choose governing officials to do so
5. The Earth _____ on its axis once every 24 hours.
v. to turn around a central point or axis; to move in a circular path around something
6. He moved his body _____ to the left.
adv. in a small degree or extent; a little
7. The committee has decided to _____ the president from the post.
v. to regard something or someone as not important and not worth considering; to terminate someone's employment
8. Heavy snow made it _____ to go to the mountain village.
adj. unable to travel to or reach; not available

ANSWERS: 1. mechanics, 2. apparently, 3. critics, 4. Democracy, 5. rotates, 6. slightly, 7. dismiss, 8. inaccessible

9. The CEO's office was decorated in a _____ and elegant style.
adj. elegant, fashionable, or luxurious, often to an excessive or ostentatious degree; associated with the upper classes or a high level of social status
10. The company enhanced _____ operations to tap into new markets.
adj. situated or operating beyond national boundaries; in, from, or to foreign countries
11. We can calculate the position of the _____ statistically.
n. a small piece of something; a word or piece of a term with grammatical function but little or no significance
12. Our company needs to _____ the business impact of climate change.
v. to judge or decide the nature or quality of someone or something
13. There are _____ differences between the two wine-producing regions.
adj. easy to see, discover or understand
14. I tried to _____ the efficiency of the investment.
v. to make a mathematical calculation
15. The sponge takes up the _____ well.
n. a substance, such as water or oil that flows freely and is neither a solid nor a gas
16. He gave his daughter a new ____ for her birthday.
n. a thing, typically a small model or replica of something that is played with, especially by children

ANSWERS: 9. posh, 10. oversea, 11. particles, 12. assess, 13. obvious, 14. compute, 15. liquid, 16. toy

17. Einstein was an outstanding and famous _____ of the 20th century.
n. a scientist who specializes in the field of physics
18. His father's death changed his whole _____ on life.
n. a confident attitude toward something; a particular style of thinking about something
19. The budget reduction was an _____ feat for our nation.
adj. arousing admiration due to size, quality, or skill
20. The _____ of the oil made it difficult to pour.
n. the state or quality of being thick, sticky, and semi-fluid in consistency; resistance to flow
21. He accumulated wealth across a _____ spectrum of assets.
adj. very wide; general
22. The committee _____ several apparent inconsistencies.
v. to conduct a systematic or formal inquiry to identify and evaluate the facts of a crime, problem, statement, etc. to establish the truth
23. We _____ our impeded progress on lack of money.
v. to think or say that someone or something did something wrong or is responsible for something bad
24. _____ and weather have an impact on every part of our lifestyles.
n. the weather in a particular location averaged over some long period
25. The interests of the two countries _____.
v. to hit something violently when moving

ANSWERS: 17. physicist, 18. perspective, 19. impressive, 20. viscosity, 21. broad, 22. investigated, 23. blamed, 24. Climate, 25. collide

26. The _____ in the spacecraft helps to stabilize its orientation during the mission.
- n.* a device consisting of a spinning wheel or disk mounted in such a way that it can rotate freely in any direction, used to maintain balance, stability, or orientation in navigation, aerospace, or other systems
27. The large group of _____ swam gracefully in the ocean, jumping out of the water now and then.
- n.* a marine mammal that typically has a beaklike snout, a streamlined body, and flippers and that feeds on fish and squid
28. The _____ disappearance of the ship remains unsolved.
- adj.* difficult to understand, explain, or identify; having an aura of secrecy, intrigue, or puzzlement
29. Their company has been in business for a short time but has _____ goals.
- adj.* having a great desire to attain achievement, power, or wealth
30. The official transcript contains _____ academic records.
- adj.* correct and exact in all details
31. Scientific knowledge will _____ significantly with the power of AI.
- v.* to go or move forward; to develop in a positive way
32. He looked for an opportunity to _____ that actor in public.
- v.* to cause someone to feel awkward, worried, or ashamed
33. The _____ of water is called ice.
- adj.* hard or firm; characterized by good substantial quality

ANSWERS: 26. gyroscope, 27. dolphins, 28. mysterious, 29. ambitious, 30. accurate, 31. advance, 32. embarrass, 33. solid-state

34. The minority _____ believed in a set of unconventional religious practices.
n. a group of people who follow a particular religious or philosophical belief system, especially one that is regarded as outside the norm or mainstream
35. He rolled up his _____ to get ready to work.
n. a part of a garment that covers all or part of an arm
36. My ____ always knew how to comfort me when I was feeling down.
n. a British term for "mom" or "mother"; (adjective) failing to speak or communicate when expected to do so
37. The relationship _____ between the two countries were complex and constantly changing.
n. the branch of mechanics that deals with the motion of bodies under the action of forces, including the particular case in which a body remains at rest; forces that produce or stimulate movement, growth, or change
38. He and I often had _____ not only in personality but also in ideology.
n. a strong disagreement, argument, or a violent clash between two opposing groups or individuals
39. We are always happy to _____ a discount.
v. to have formal discussions with someone to reach an agreement
40. The construction project has been delayed _____ due to the pandemic.
adv. without any fixed or definite limit; for an unknown or unspecified period of time
41. This movie _____ at everyone's heartstrings.
v. to pull something quickly and hard, often several times

ANSWERS: 34. sect, 35. sleeves, 36. mum, 37. dynamics, 38. conflicts, 39. negotiate, 40. indefinitely, 41. tugs

42. The election was a _____ success for the Whigs.

adj. worthy of attention because unusual or special

43. 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

44. The machine pumps up crude oil from a deep underground _____.

n. a natural or artificial lake used to store water for community use; a large or extra supply of something

45. The leaders of the two countries met to _____ on the issue.

v. to have a meeting or discussion to come to a decision or agreement or exchange ideas; to bestow something

46. Skill and _____ are an unconquered army.

n. the feeling or attitude that one can trust or rely on the abilities or good qualities of someone or something

47. 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

48. 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

49. The project's _____ made it difficult for the team to complete it on time.

n. the state or quality of being complicated or intricate and difficult to understand

ANSWERS: 42. remarkable, 43. turbines, 44. reservoir, 45. confer, 46. confidence, 47. involves, 48. universe, 49. complexity

50. The company _____ its product line to include more customer options.
v. to make or become wider or more extensive; to make or become more tolerant or liberal.
51. His _____ bedroom is always a source of frustration for his mother.
adj. disorganized and untidy
52. Detergent weakens the surface tension at the _____ of two liquids.
n. (computer science) a program that controls a display for the user and that allows the user to interact with the system; (chemistry) a surface forming a common boundary between two things
53. He is a man admired for the depth of his _____.
n. a belief, opinion, or image you have based on how you regard, understand, or interpret something; the ability to see, hear, or notice something through the senses
54. Many people worry that the current real estate market is a _____ that could burst soon.
n. a thin, round, and often transparent mass of gas that is surrounded by a thin layer of liquid; a state of economic or social prosperity that is unsustainable and eventually collapses
55. He was a successful _____ and had much experience in the field.
n. a person who is engaged in business, typically as an owner or executive
56. This regulation is not _____ to minors.
adj. fit or suitable to be applied; having relevance to a person or thing
57. The more _____ you are, the more people around you look at you with envy and jealousy.
adj. extremely clever, skilled, or impressive

ANSWERS: 50. broadened, 51. messy, 52. interface, 53. perception, 54. bubble, 55. businessperson, 56. applicable, 57. brilliant

58. The outermost electron _____ determines the chemical properties of an atom.
n. hard outer covering or case of eggs, nuts, some seeds, and some animals
59. Could you help me _____ some furniture?
n. a slight transition in position, direction, or trend
60. 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
61. The _____ unique sound added to the jazz ensemble.
n. a musical instrument of the woodwind family, with a single reed, a cylindrical bore, and a curved mouthpiece, known for its versatility and rich, warm tone
62. The strict _____ ruled in favor of the plaintiff in the case.
n. a person who makes decisions in a court of law; (verb) to determine the result of or form a critical opinion of something
63. Children _____ language at a fantastic rate.
v. to buy or obtain something such as an asset, object, knowledge, etc., for oneself
64. The recent economic downturn has resulted in _____ layoffs.
adj. enormous amount; very heavy and solid
65. The _____ of friction on the icy road was dangerously low.
n. a numerical measure of a specific property or characteristic of a substance or system that is used in mathematical equations or formulas to predict behavior or outcomes; a factor that expresses the change in one variable per unit change in another variable

ANSWERS: 58. shell, 59. shift, 60. discovery, 61. clarinet's, 62. judge, 63. acquire, 64. massive, 65. coefficient

66. As a result of this _____ we have revised our safety measures.
n. the act of changing something, usually to improve it, or something changed
67. I found an old _____ of my grandparents from their wedding day.
n. a picture or image that is produced by a camera; a visual representation or record of a person, object, or scene that has been captured electronically or on film
68. This bar _____ shows sales over the past five years.
n. a picture consisting of a line, lines, points, etc., that shows how two or more sets of certain quantities are related to each other
69. We are motivated by _____ rather than necessity.
n. a strong desire to know or learn about something
70. He was determined to _____ everything.
v. to cause or allow liquid to run or flow over the edge of its container by accident
71. The forest was recently designated a _____ area.
n. the protection of something important, such as the natural environment or artificial structures, especially from the damaging effects of human activity
72. The spaceship began to burn up as it approached the Earth's _____.
n. the mass of air that surrounds the Earth; the pervading tone or mood of a place, situation, or creative work
73. The _____ bread had a deliciously sweet flavor.
n. a dried grape, typically made from certain varieties of grapes that are specifically grown for this purpose; a popular snack food or baking ingredient

ANSWERS: 66. modification, 67. photograph, 68. graph, 69. curiosity, 70. spill, 71. conservation, 72. atmosphere, 73. raisin

74. Many people are working together to close the gender ____.
- n.* a conspicuous disparity or difference separates something such as a figure, people, their opinions, situation, etc.
75. Their headquarters are in a _____ skyscraper.
- adj.* of or belonging to the present time or recent times
76. His grandfather was an ____ man.
- adj.* strange or unexpected; not divisible by two
77. _____ evolved from people's philosophical questions about the natural world.
- n.* the scientific study of the nature and origin of the universe
78. 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
79. Night fishing has a lot of _____.
- n.* a thing given in acknowledgment of service, hard work, achievement, etc.
80. She researched gender _____ in politics.
- n.* a strong feeling in favor of or against one group of people, an idea, or thing, often not based on fair judgment
81. We made a _____ with everyone.
- n.* slices of bread browned on both sides that have been put near a high heat; a drink in honor of or to the health of a person or even

ANSWERS: 74. gap, 75. modern, 76. odd, 77. Cosmology, 78. basis, 79. rewards, 80. bias, 81. toast

82. He devised a new analytical _____ to capture the phenomenon.
n. the structural components of a building or object that support its weight and give it form; the underlying structure of a system, concept, or text
83. Firstly, we will discuss the budget; _____ we will go over the schedule.
adv. used to introduce the second point or item in a list or series of statements, considerations, etc.
84. Each beautiful _____ represents either an idea or a sound.
n. a writing system using picture symbols, such as the one used in ancient Egypt
85. To expand the company, we must ____ new human resources.
v. to hit someone or something quickly, gently, and often repeatedly; to use existing resources, such as energy, knowledge, etc.
86. There is nothing more valuable than _____ and freedom.
n. freedom from another's or others' control or influence
87. The astronaut felt weightless in space due to the absence of _____.
n. the force that attracts a body towards the center of the earth or towards any other physical body having mass; a manner that is solemn
88. Human behavior has _____ characteristics.
adj. forming an essential base or core from which everything else develops or is affected
89. The Prime Minister will pay a courtesy visit to the Nobel laureate's _____.
n. a workplace for the conduct of scientific research; a laboratory

ANSWERS: 82. framework, 83. secondly, 84. hieroglyph, 85. tap, 86. independence, 87. gravity, 88. fundamental, 89. lab

90. She took a moment to _____ herself in the unfamiliar city.
v. to position or adjust someone or something for a particular purpose; (noun) the countries of Asia
91. The earth's _____ of rotation is tilted 66.5 degrees to the ecliptic plane.
n. a real or imaginary straight line through a body or figure around which the object turns; a group of countries in special alliance
92. He became _____ that he was being followed.
adj. being aware of and able to respond to what is happening around you
93. This facility has the largest astronomical _____ in the country.
n. a device like a tube in shape containing lenses used to magnify and observe distant objects
94. 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
95. DNA is stored in the _____ of a cell.
n. the central and most important part of something; (biology) a part of the cell containing DNA and RNA and responsible for growth and reproduction; (physics) the very dense central region of an atom
96. The motion of planets can be described using _____ mechanics.
adj. relating to Sir Isaac Newton or his laws of motion and universal gravitation
97. He wandered the _____ between life and death by gunfire.
n. a real or imaginary line that marks the limit or extent of something and separates it from other things or places

ANSWERS: 90. orient, 91. axis, 92. conscious, 93. telescope, 94. planet, 95. nucleus, 96. Newtonian, 97. boundary

98. She left the _____ door open inadvertently.

n. a piece of electrical equipment in which food can be stored at low temperatures so that it stays fresh

99. One such rapidly growing _____ is quantum cryptography.

n. an idea or principle associated with something abstract

100. Most countries prohibit sexual activity between certain close _____.

adj. considered and evaluated through comparison with something else

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

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

102. The magician's act was _____ and kept the audience on the edge of their seats.

adj. providing enjoyment or amusement, especially through being lively or amusing

103. Please refrigerate the meat, or it will _____.

v. to decay, or cause something to decay, naturally and gradually

104. The goats often _____ heads when they are fighting for dominance.

v. to strike or push something with the flat end of your hip or buttocks; to hit or knock forcefully; (noun) the remaining end of a smoked cigarette

105. The _____ algorithm always produces the same result for a given input.

adj. characterized by an assumption of cause and effect and the absence of chance or randomness, often used to describe scientific or engineering calculations

ANSWERS: 98. fridge, 99. concept, 100. relatives, 101. spinning, 102. entertaining, 103. rot, 104. butt, 105. deterministic

106. She took a _____ class at the gym to improve her cardiovascular fitness.
n. the act of rotating rapidly around an axis; in the context of textiles, the process of twisting fibers together to form thread or yarn
107. I feel so _____ without you.
adj. unable to take care of oneself or to do things without help
108. The class was composed of both _____ and graduate students.
n. a student who is studying for their first degree at a university or other higher education institution
109. 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
110. Any rotating body has _____ momentum about its center of mass.
adj. measured by an angle or by the rate of change of an angle; having angles or an angular shape
111. In a _____ system, the outcome is uncertain and can vary based on chance.
adj. characterized by the influence of chance or probability; involving the use of statistical models or methods to estimate likelihoods or risks
112. Big techs are now eager to develop _____ computers.
n. the smallest amount or unit of something, especially (electromagnetic) energy
113. The final _____ provides a summary of the discussion.
n. a separate section of a written work usually numbered and titled

ANSWERS: 106. spinning, 107. helpless, 108. undergraduate, 109. process, 110. angular, 111. probabilistic, 112. quantum, 113. chapter

114. I _____ around for years in Europe before going to university.

- v.* to move smoothly and slowly in water or air, especially as a result of outside forces, with no control over the direction

115. We will explain the countermeasure concerning this problem _____.

- adv.* after the time mentioned

116. The second law of _____ denies the existence of a perpetual motion engine.

- n.* the area of physics that deals with heat, work, and temperature and their relation to energy, entropy, and the physical properties of matter and radiation

117. He needed to _____ with structural reforms to improve the company's revenue.

- v.* to make a strenuous effort to solve a problem; to engage in a close fight or conflict without weapons

118. The soda began to _____ when I opened the can, spilling over the top and onto my shirt.

- v.* to make a hissing or bubbling sound, often accompanied by the release of gas or effervescence; to be lively, exciting, or effervescent in character or atmosphere; (noun) the sound, process, or result of something producing small bubbles

119. The island was formed by a _____ millions of years ago.

- n.* a mountain or hill, typically conical, having a crater or vent through which lava, rock fragments, hot vapor, and gas are or have been erupted from the earth's crust.

120. After returning from the war, he had a pretty _____ life.

- adj.* very ordinary and therefore lacking interest or excitement

ANSWERS: 114. drifted, 115. afterward, 116. thermodynamics, 117. grapple, 118. fizz, 119. volcano, 120. mundane

121. _____ dropping wears away the stone.

adj. happening repeatedly or all the time

122. The paper is _____ worth reading thoroughly.

adv. without any question and beyond doubt; clearly

123. These economic activities had disastrous environmental _____.

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

124. X-rays revealed a small tumor in his _____.

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

125. Thousands of people attended the protest _____ against the proposed policy.

n. a display or show, often of a particular skill or product, intended to convince or persuade others

126. The water level was even with the basin's _____.

n. the edge of something in the shape of a more or less circular object

127. His _____ showed highly positive results.

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

128. The golfer recorded an _____ distance.

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

129. He studied the _____ of radiation.

n. the science of matter and energy and their interactions

ANSWERS: 121. Constant, 122. definitely, 123. consequences, 124. brain, 125. demonstration, 126. rim, 127. experiments, 128. amazing, 129. physics

130. The _____ over climate change continues to be a hot topic in politics.
n. a formal discussion or argument of opposing viewpoints, often to persuade others to adopt a specific position; a public discussion, often on an issue of current interest, in which participants offer opinions and differing perspectives
131. He worked at the _____ of behavioral economics.
n. a border that separates two countries, or the area near this line
132. This remote _____ is rarely visited.
n. a particular location or place; a small round or roundish area, differing in color or feels from the surface around it
133. The _____ galaxy was only visible through a powerful telescope.
adj. distant in time or space; remote; distant or unlikely to happen
134. The students' antics did not amuse the _____ teacher.
adj. serious, unyielding, or strict in manner or attitude
135. The MRI machine uses _____ to produce images of the body's internal organs.
n. an object or substance that can attract certain materials, such as iron or steel
136. My computer has been acting _____ recently.
adj. extraordinary, unexpected, or difficult to explain
137. The cancellation of the concert was a huge _____ for the fans.
n. the feeling of sadness, frustration, or dissatisfaction that arises when something does not live up to one's expectations or hopes

ANSWERS: 130. debate, 131. frontier, 132. spot, 133. far-off, 134. stern, 135. magnets, 136. weird, 137. disappointment

138. Six _____ are awaiting trial or verdict.

- n.* a set of clothes that are made from the same material; a claim or complaint that a person or organization can file in court against another party; (verb) to be fit or acceptable for

ANSWERS: 138. suits