

# Englist.me



## Vocabulary Builder Reference from...

*Gian Giudice: Why our universe might exist on a knife-edge | TED Talk*

[https://www.ted.com/talks/gian\\_giudice\\_why\\_our\\_universe\\_might\\_exist\\_on\\_a\\_knife\\_edge](https://www.ted.com/talks/gian_giudice_why_our_universe_might_exist_on_a_knife_edge)

### All Words

#### IMPORTANT

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## Session 1: Word List

### 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.

### 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**.

### 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**.

### boson

*n.* a type of subatomic particle that follows Bose-Einstein statistics, which determine how identical particles with integer spins behave

*synonym*: photon, gluon, particle

(1) weak **boson**, (2) Higgs **boson**

The search for new **boson** particles is one of the most exciting areas of modern physics.

## historic

*adj.* famous or significant in history, or potentially so

*synonym*: memorable, momentous, historical

(1) **historic** accomplishment, (2) achieve the **historic** feat

The Chinese people have accomplished several **historic** feats.

## doubt

*n.* a feeling of being uncertain about something, especially about how good or accurate it is

*synonym*: distrust, suspect, mistrust

(1) dispel **doubts**, (2) no **doubt** about the news

**Doubt** is the start, not the end, of intelligence.

## declaration

*n.* a formal or explicit statement or announcement

*synonym*: statement, announcement, proclamation

(1) **declaration** of independence, (2) unilateral **declaration**

The President made the **declaration** of war.

## 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.

## theoretical

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

*synonym*: conceptual, conjectural, ideal

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

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

## 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.

## 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.

## mass

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

*synonym* : abundance, crowd, mob

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

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

## unsatisfactory

*adj.* not meeting the desired or expected standard or quality

*synonym* : inadequate, subpar, lacking

(1) **unsatisfactory** performance, (2) **unsatisfactory** on several counts

The service was **unsatisfactory**, and the customer demanded a refund.

## incomplete

*adj.* not having all the necessary or appropriate parts; not yet finished

*synonym* : undone, unfinished, insufficient

(1) **incomplete** information, (2) customer with **incomplete** credit histories

The researcher criticized the study due to **incomplete** data.

## unanswered

*adj.* not responded to or explained

*synonym* : ignored, unrequited, undecided

(1) **unanswered** love, (2) **unanswered** e-mail

Pardon me for leaving some of your questions **unanswered**.

## symmetry

*n.* balance or proportion in design or structure, with elements arranged evenly on either side of an axis

*synonym*: balance, proportion, harmoniousness

(1) bilateral **symmetry**, (2) axial **symmetry**

The building had a **symmetry** pattern that was pleasing to the eye.

## elegance

*n.* the quality of being graceful and stylish in appearance or manner

*synonym*: grace, refinement, poise

(1) austere **elegance**, (2) natural **elegance**

The **elegance** of her dress was breathtaking.

## phenomenon

*n.* something that exists and can be perceptible, especially one that is not fully understood

*synonym*: marvel, wonder, splendor

(1) natural **phenomenon**, (2) historical **phenomenon**

A rainbow is a natural **phenomenon**.

## accompanying

*adj.* being in a position next to or near something or someone

*synonym*: attendant, concomitant, coexisting

(1) **accompanying** equipment, (2) **accompanying** documents

The **accompanying** music was soothing and added to the ambiance.

## unexpected

*adj.* not anticipated or regarded as likely to happen

*synonym*: surprising, unanticipated, incredible

(1) an **unexpected** visitor, (2) some **unexpected** events

The **unexpected** rainstorm caused the collapse of the corral.

## verdict

*n.* an official opinion or decision made in a civil or criminal case or an inquest (= an inquiry into the cause of an unexpected death); the findings of a jury on issues of fact submitted to it for decision

*synonym*: judgment, ruling, decree

(1) the popular **verdict**, (2) jury **verdict**  
The Court of Appeals upheld the **verdict**.

## definitive

*adj.* serving to provide a final solution or to end a situation;  
final and not able to be changed

*synonym*: conclusive, final, decisive

(1) **definitive** answer, (2) a **definitive** edition

The study provided **definitive** proof of the effectiveness of the new drug.

## proton

*n.* a very small particle with a positive charge equal to the negative charge of an electron that forms part of the nucleus of all atoms

(1) **proton** decay, (2) **proton** conductivity

The solar wind is composed almost entirely of electrons and **protons**.

## collision

*n.* an instance of two or more objects or entities crashing into each other, usually resulting in damage, impact, or conflict

*synonym*: crash, impact, smash

(1) **collision** detection, (2) come into **collision** with my friend

The **collision** of tectonic plates can result in new mountain ranges, such as the Himalayas or the Alps.

## suppose

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

*synonym*: guess, assume, presume

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

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

## hypothesis

*n.* a proposed idea or explanation that is based on a few known facts but has not yet been proven to be true or accurate

*synonym*: assumption, conjecture, theory

(1) test my **hypothesis**, (2) a bold **hypothesis**

This evidence supports the big-bang **hypothesis**.

## intriguing

*adj.* arousing curiosity or interest, often due to a mysterious or complex quality; fascinating or captivating

*synonym* : fascinating, captivating, arresting

(1) **intriguing** concept, (2) **intriguing** character

The novel's plot was **intriguing** and kept readers in their seats.

## 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.

## bang

*v.* to hit or cause to hit something in a way that makes a loud noise

*synonym* : crash, hit, smash

(1) **bang** his fist on a desk, (2) **bang** a phone down

My father tried to **bang** mathematics into my head since childhood.

## instant

*adj.* happening immediately, with no delay

*synonym* : immediate, urgent, moment

(1) get **instant** access, (2) an **instant** reply

His pleasant face turned cold in an **instant**.

## dramatic

*adj.* very sudden, very excellent, or full of action and excitement

*synonym* : striking, theatrical, breathtaking

(1) make **dramatic** changes, (2) a **dramatic** rescue at sea

The statement had a **dramatic** impact on house prices.

## spacetime

*n.* a four-dimensional continuum consisting of three dimensions of space and one dimension of time, used to describe the physical universe according to Einstein's

theory of general relativity

(1) **spacetime** continuum, (2) quantum **spacetime**

The curvature of **spacetime** is affected by the presence of mass and energy.

## undergo

*v.* to go through something unpleasant or that involves a change

*synonym*: experience, suffer, endure

(1) **undergo** surgery, (2) **undergo** a decrease

The train has to **undergo** rigorous safety checks.

## phase

*n.* any stage in a series of events, change, or development

*synonym*: degree, stage, step

(1) enter on the last **phase**, (2) two- **phase** structure

The era of the industrial revolution was a crucial **phase** of history.

## transition

*n.* the process or period of changing from one state or circumstance to another

*synonym*: change, growth, shift

(1) **transition** phase, (2) ensure a smooth **transition**

The nation's healthcare system is in **transition** at the moment.

## degree

*n.* a unit of measurement for angles, temperature, or level of proficiency or achievement; a rank or level of academic or professional attainment

*synonym*: level, qualification, diploma

(1) bachelor's **degree**, (2) **degree** centigrade

She received her **degree** in psychology from the university.

## molecule

*n.* a group of two or more atoms held together by attractive forces known as chemical bonds

*synonym*: particle, element, atom

(1) small **molecules**, (2) **molecule** behavior

The shape of the DNA **molecule** is a double helix.

## arrange

*v.* to plan, prepare for, and carry out something

*synonym*: set up, order, organize

(1) **arrange** the meeting, (2) the list was **arranged** alphabetically

I need to **arrange** plans with him for the celebration.

## fabric

*n.* cloth or other material produced by weaving wool, cotton, silk, etc., used for making clothes, covering furniture, etc.

*synonym*: cloth, material, goods

(1) a hand-loomed **fabric**, (2) **fabric** of creation

These synthetic **fabrics** are used in military vests because of their excellent abrasion resistance.

## substance

*n.* the real physical material of which a thing or person consist; the most important or main part of some idea or experience; an illegal drug

*synonym*: essence, core, material

(1) an explosive **substance**, (2) **substance** abuse problem

The **substance** of the argument was well-presented.

## invisible

*adj.* impossible or nearly impossible to see

*synonym*: hidden, imperceptible, unseen

(1) an **invisible** asset, (2) **invisible** stars

The phenomenon is **invisible** at optical wavelengths.

## surround

*v.* to be all around something or somebody

*synonym*: encircle, encompass, envelop

(1) **surround** a town, (2) a stone wall **surrounds** the palace

On three sides, mountains **surround** the settlement.

## interact

*v.* to communicate or react with somebody

*synonym*: cooperate, combine, collaborate

(1) **interact** directly with customers, (2) **interact** with one another

He should **interact** more with his colleagues.



## 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.

## intrinsic

*adj.* belonging naturally; essential

*synonym*: inherent, innate, natural

(1) **intrinsic** value, (2) **intrinsic** nature

The **intrinsic** beauty of the painting was immediately apparent to all who viewed it.

## conclusive

*adj.* serving to settle an issue or put an end to doubt or uncertainty; irrefutable and leaves no room for doubt

*synonym*: decisive, definitive, convincing

(1) **conclusive** information, (2) **conclusive** statement

The research provided **conclusive** evidence that the new treatment was effective.

## nutshell

*n.* the hard, outer covering or protective casing that encloses the kernel or fruit of certain types of nuts, such as walnuts or acorns; a concise and condensed summary or explanation of something

*synonym*: summary, essence, covering

(1) move into a **nutshell**, (2) **nutshell** version

Can you explain your argument in a **nutshell**?

## essence

*n.* the basic or most important part or quality of something that makes it what it is

*synonym*: core, nature, disposition

(1) vanilla **essence**, (2) universal **essence**

University teaches the art of understanding the **essence** of the matter.

## mathematics

*n.* the science dealing with the logic of quantities, shapes, spaces, and arrangement

*synonym*: arithmetic, calculation, calculus

(1) a good grounding in **mathematics**, (2) **mathematics** competition

He has a flair for **mathematics**.

## necessarily

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

*synonym*: inevitable, certainly, automatically

(1) not **necessarily** a problem, (2) **necessarily** true

This accident was something that happened **necessarily**.

## observe

*v.* to watch or notice something carefully, often to gather information or insights; to take note of something or someone; to celebrate or commemorate a special event or occasion

*synonym*: watch, monitor, scrutinize

(1) **observe** a tradition, (2) **observe** wildlife

It is important to **observe** safety procedures in the workplace to prevent accidents.

## 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.

## 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.

## dense

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

*synonym*: heavy, thick, idiotic

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

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

## mere

*adj.* used to emphasize how insignificant or minor someone or something is

*synonym*: bare, minor, sheer

(1) **mere** acquaintance, (2) **mere** incident

He lost the election by **mere** votes.

## pose

*v.* to present a risk, problem, or other issues that must be addressed

*synonym*: present, put, position

(1) **pose** a significant threat to my company, (2) **pose** a challenge

The chemicals **pose** a massive health risk.

## 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.

## presence

*n.* the fact or state that someone or something exists, occurs, or is present

*synonym*: existence, actuality, fact

(1) the evidence of the **presence**, (2) his majestic **presence**

The path to a solid online **presence** necessitates a high technical ability.

## barrier

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

*synonym* : border, barricade, fence

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

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

## separate

*v.* to force, take, or pull apart; mark as different

*synonym* : disunite, isolate, ramify

(1) **separate** video into chapter, (2) **separate** cream from milk

We need to **separate** the aspect of his personality from the part of his competence when making an investment decision.

## appropriate

*adj.* suitable or proper in the circumstances; fitting

*synonym* : fitting, suitable, proper

(1) **appropriate** behavior, (2) an **appropriate** time

It would be **appropriate** to dress nicely for the wedding.

## tunnel

*n.* an underground or underwater passage, typically for trains or cars

*synonym* : passageway, underground passage

(1) **tunnel** construction work, (2) **tunnel** disease

The workers had to dig through solid rock to create the vehicular **tunnel** allowing the cars to pass through the mountain.

## disappear

*v.* to cease to exist or be visible

*synonym* : fade, evaporate, vanish

(1) **disappear** without a trace, (2) **disappear** after a week

They watched the train **disappear** into the distance.

## reappear

*v.* to show up again or return after not being heard of or seen for a period of time

*synonym* : come again, repeat, re-emerge

(1) **reappear** on the surface, (2) **reappear** throughout this

book

Cancer has **reappeared** at the same site.

## practically

*adv.* almost or nearly

*synonym* : almost, nearly, virtually

(1) **practically** constant, (2) **practically** impossible to find a parking spot

The store is **practically** empty.

## penetrating

*adj.* able to pierce or enter deeply into something; having a sharp, intense quality that cuts through superficiality or confusion

*synonym* : keen, piercing, sharp

(1) **penetrating** gaze, (2) **penetrating** analysis

The **penetrating** smell of freshly brewed coffee filled the room.

## 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.

## penetrate

*v.* to pass into or through something, often by overcoming resistance

*synonym* : pierce, stab, go through

(1) **penetrate** a cell, (2) **penetrate** quickly into the skin

Western ideology slowly **penetrates** through the eastern countries.

## ridiculous

*adj.* very silly or unreasonable and deserving to be laughed at

*synonym* : absurd, fatuous, foolish

(1) a **ridiculous** amount of money, (2) a **ridiculous**

suggestion

Everyone regarded the theory he advocated as **ridiculous** but was later proven correct.

## instance

*n.* a particular example or single occurrence of something  
*synonym*: example, sample, illustration

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

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

## diode

*n.* an electronic component that conducts current primarily in one direction and typically has two electrodes or terminals

*synonym*: rectifier, valve, semiconductor

(1) light-emitting **diode**, (2) semiconductor **diode**

The **diode** in the circuit prevented the current from flowing in the wrong direction.

## component

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

*synonym*: element, part, factor

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

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

## electronics

*n.* the branch of physics and technology that deals with the behavior and control of electrons and the use of electronic devices and systems

*synonym*: technology, gadgets, circuitry

(1) **electronics** industry, (2) **electronics** store

The company specializes in manufacturing and selling cutting-edge **electronics**.

## 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.

### suddenly

*adv.* quickly and unexpectedly

*synonym*: abruptly, unexpectedly, unawares

(1) **suddenly** attacked by an enemy, (2) die **suddenly**  
Who answers **suddenly** knows little.

### analogous

*adj.* similar or equivalent in some respects, typically as a result of functioning in a similar way

*synonym*: similar, comparable, equivalent

(1) **analogous** fashion, (2) entirely **analogous**

The human heart is **analogous** to a pump in a plumbing system.

### vapor

*n.* a mass of tiny liquid drops in the air

*synonym*: condensation, dew, fog

(1) alcohol **vapor**, (2) water **vapor** in the atmosphere  
Clouds form when water **vapor** rises to the upper atmosphere.

### expand

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

*synonym*: extend, grow, boost

(1) **expand** a lineup, (2) **expand** agricultural output  
They hope to **expand** their business worldwide.

### invade

*v.* to enter aggressively into another's territory by military force for conquest and occupation

*synonym*: intrude, raid, overrun

(1) **invade** other tissues, (2) **invade** his privacy  
I have no intention to **invade** your privacy.

### ordinary

*adj.* not different, exceptional, or unexpected in any way, especially in quality, ability, size, or degree

*synonym*:

mundane, prosaic, average

(1) an **ordinary** school, (2) **ordinary** annual revenue

The **ordinary** session of the Diet opened.

## intensify

*v.* to increase or make something increase in extent or strength

*synonym*: amplify, boost, strengthen

(1) **intensify** diplomatic efforts, (2) **intensify** a good relationship

Rebels have pledged to **intensify** the armed struggle against the dictatorship.

## 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**.

## structure

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

*synonym*: construction, architecture, establishment

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

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

## intense

*adj.* (especially of a feeling) very strong; extremely sharp or severe

*synonym*: extreme, fierce, harsh

(1) **intense** heat, (2) develop **intense** itching

That statement by the prime minister drew **intense** international criticism.



## atom

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

*synonym* : particle, element, fraction

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

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

## shrink

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

*synonym* : decrease, diminish, shy away

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

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

## neutron

*n.* a subatomic particle with no electric charge that is present in all atomic nuclei except those of ordinary hydrogen

(1) **neutron** acceleration, (2) the antiparticle of a **neutron**

A **neutron** star is incredibly dense and has a strong gravitational pull.

## decay

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

*synonym* : corrosion, decomposition, deterioration

(1) radioactive **decay**, (2) prevent tooth **decay**

The dead body was in an advanced state of **decay**.

## atomic

*adj.* of or relating to atom (= the smallest component of an element)

*synonym* : tiny, microscopic, nuclear

(1) **atomic** nucleus, (2) **atomic** bomb

Carbon has an **atomic** mass of 12.

## 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.

## disintegrate

*v.* break or cause to break into small fragments

*synonym* : shatter, crumble, break down

(1) **disintegrate** in an explosion, (2) **disintegrate** over time  
The vase **disintegrated** into pieces when it fell to the ground.

## hydrogen

*n.* the chemical element that is the lightest gas is colorless, odorless, tasteless, and combines with oxygen to form water

(1) **hydrogen** gas, (2) heavy **hydrogen**

The **hydrogen** and the oxygen react and then form water.

## chemical

*adj.* relating to or connected with chemistry;

*synonym* : chemic, synthetic

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

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

## collapse

*v.* to fall down or give way suddenly, often after breaking apart

*synonym* : tumble, spill, bankruptcy

(1) the stock market **collapsed**, (2) ready to **collapse**

The roof finally **collapsed** after three days and three nights of heavy snowfall.

## molecular

*adj.* of or relating to molecules (= a group of two or more atoms held together by attractive forces known as chemical bonds)

*synonym* : microscopic, atomic

(1) **molecular** structure, (2) **molecular** biology

**Molecular** weight is the sum of all the atoms.

## transform

*v.* to change in outward structure or looks;

*synonym*: alter, convert, change

(1) **transform** an education system, (2) **transform** heat into power

My father's death **transformed** my life completely.

## nasty

*adj.* very bad, unpleasant, or offensive

*synonym*: disgusting, offensive, foul

(1) a **nasty** smell, (2) receive a **nasty** surprise

The weather turned **nasty**.

## crucial

*adj.* extremely vital or necessary

*synonym*: essential, pivotal, vital

(1) **crucial** information, (2) a **crucial** issue for women

The revitalization of technology companies is **crucial** to the country's growth.

## ingredient

*n.* one of the things used to make something, especially one of the foods used to make a particular dish

*synonym*: element, component

(1) secret **ingredients**, (2) compound the **ingredients**

Greed is the primary **ingredient** in the making of criminals.

## gram

*n.* a metric unit of weight equal to one-thousandth of a kilogram

(1) centimeter- **gram-second** system, (2) **gram** amount

How much is it per one hundred **grams**?

## physics

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

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

He studied the **physics** of radiation.

## constituent

*n.* one of the parts of the whole; a person represented by an elected official

*synonym*: member, element, part

(1) **constituent** assembly, (2) the solid **constituent** of blood

cells

Each **constituent** member of the council has the right to vote on important decisions.

## colleague

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

*synonym*: coworker, associate, fellow

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

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

## 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.

## calculation

*n.* the act or process of using numbers to judge an amount of something

*synonym*: analysis, computation, estimate

(1) make a **calculation**, (2) **calculation** of loss and gain

The error in the **calculation** was attributable to rounding.

## unstable

*adj.* lacking solidity, persistence, or firmness and therefore not strong, safe, or likely to continue; lacking control of one's emotions

*synonym*: shaky, unbalanced, inconsistent

(1) mentally **unstable**, (2) **unstable** weather

The tower proved to be **unstable** in the high wind.

## wobble

*v.* to move or shake unsteadily from side to side or up and down

*synonym*: sway, rock, totter

(1) **wobble** a few steps, (2) **wobble** chair

The table **wobbled** a little when I put my drink on it.

## configuration

*n.* the arrangement or pattern of something or a group of related things

*synonym*: arrangement, composition, formatting

(1) **configuration** of the system, (2) engine **configuration**  
The **configuration** of molecules in steel changes significantly with temperature.

## eventually

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

*synonym*: finally, someday, ultimately

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

## accidentally

*adv.* by chance or without planning

*synonym*: by chance, unintentionally, unwittingly

(1) they met **accidentally**, (2) **accidentally** coincide  
He was **accidentally** killed by friendly fire.

## cliff

*n.* a steep rock face, especially one at the edge of the sea or a river

*synonym*: crag, escarpment, precipice

(1) a bold **cliff**, (2) **cliff** diving

He stood at the edge of the **cliff** and looked out to sea.

## stable

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

*synonym*: sturdy, unmoving, durable

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

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

## government

*n.* the group of people with authority to control a country or state

*synonym*: administration, regime, state

(1) **government** bureaucracy, (2) **government** funding

The federal **government** is planning to increase taxes for the next fiscal year.

## **giant**

*adj.* enormous; much bigger or more important than similar items usually are

*synonym* : big, gigantic, huge

(1) **giant** trees, (2) **giant** tech company

The **giant** jets gradually dominate the world's airlines.

## **orbit**

*n.* the path of an object around a celestial body, especially a planet, star, or moon, under the influence of gravity; (of medicine) the bony cavity in the skull that houses the eyeball and its associated structures, like muscles, nerves, and blood vessels

*synonym* : path, course, trajectory

(1) the **orbit** of the moon, (2) a planetary **orbit**

The rocket engine is used to put the satellite into **orbit**.

## **fuel**

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

*synonym* : energy, power, gas

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

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

## **expansion**

*n.* the process of becoming larger or more extensive, or the result of this process

*synonym* : growth, enlargement, development

(1) industrial **expansion**, (2) **expansion** project

The company is undergoing an **expansion**, opening new locations in several states.

## **unlikely**

*adj.* not probable or likely to happen

*synonym* : doubtful, questionable, far-fetched

(1) **unlikely** event, (2) it is **unlikely** that he would win the game

The passage of the bill is **unlikely**.

## **clue**

*n.* an object, a piece of evidence, or some information that helps someone to find the answer to a problem,

question, or mystery

*synonym*: hint, indication, inkling

(1) a **clue** about the crime, (2) a **clue** to the diagnosis

The police couldn't find a **clue** to her whereabouts.

## 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.

## principle

*n.* a fundamental law or truth that explains or controls how something happens or works

*synonym*: rule, creed, code

(1) **principle** of treatment, (2) **principle** in business

Efficiency isn't an essential **principle** here; fairness is.

## specification

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

*synonym*: description, requirement, guideline

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

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

## multiverse

*n.* a hypothetical space or realm consisting of multiple universes, of which our universe is just one of them

(1) the **multiverse** hypothesis, (2) the concept of the **multiverse**

The various universes within the **multiverse** are sometimes called parallel universes.

## multitude

*n.* a large number of things or people

*synonym*: mass, assembly, hive

(1) great **multitude**, (2) from a **multitude** of sources

This company is faced with a **multitude** of problems.

## 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.

## context

*n.* the circumstances, facts, or conditions that surround a particular event, situation, or statement and that give it meaning

*synonym*: background, setting, environment

(1) historical **context**, (2) legal **context**

It's important to understand the **context** of a situation before making a decision.

## mystery

*n.* something difficult to understand or explain; a secret or enigmatic quality that adds to the fascination or interest of something; a genre of fiction that involves the solution of a crime or a puzzle

*synonym*: enigma, puzzle, secret

(1) **mystery** novel, (2) unsolved **mystery**

The **mystery** surrounding the disappearance of the traveler has yet to be solved by authorities.

## statistics

*n.* the discipline that concerns the collection, organization, analysis, interpretation, and presentation of data

(1) **statistics** for cancer, (2) official **statistics**

The **statistics** demonstrate that poverty and unemployment are genuine problems.

## sand

*n.* finely granulated particles of rock or mineral material typically found along beaches, deserts, or riverbeds; used in construction, landscaping, and other applications requiring drainage or abrasive action

*synonym*: grit, dust, powder

(1) **sand** dunes, (2) **sand** castle

The **sand** on the beach was warm and golden.



- dun** *adj.* having a dull brownish-gray color, often used to describe the color of certain animals, such as a dun horse; (verb) to repeatedly and insistently demand payment of a debt or money owed  
*synonym*: dark, gloomy, somber  
(1) **dun** horse, (2) **dun** him for the unpaid bills  
The spider was camouflaged on the **dun-colored** rock, waiting for its next prey.
- slope** *n.* a surface with one end or side that is higher than the other  
*synonym*: gradient, pitch, slant  
(1) an abrupt **slope**, (2) slide down a **slope** on a ski  
The hut stands on the **slope** of a mountain.
- typical** *adj.* having the usual characteristics or traits of a specific group of things  
*synonym*: characteristic, usual, distinctive  
(1) **typical** leader, (2) fairly **typical** symptoms  
This artwork is **typical** of her work.
- 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**.
- vast** *adj.* enormous in size, number, amount, or quantity  
*synonym*: expansive, extended, boundless  
(1) **vast** majority, (2) **vast** desert  
A **vast** audience viewed the broadcast.
- cosmic** *adj.* relating to the universe or cosmos; vast or limitless  
*synonym*: astronomical, celestial, outer-space  
(1) second **cosmic** velocity, (2) **cosmic** background

radiation

**Cosmic** rays are high-energy particles that originate from outside the solar system.

## compete

*v.* to strive to achieve more success than someone or something

*synonym*: contend, contest, vie

(1) **compete** against a friend, (2) **compete** fiercely

You must **compete** with others to obtain this position.

## progression

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

*synonym*: advancement, development, evolution

(1) **progression** of civilization, (2) **progression** of disease

The company has made great strides in its **progression** toward sustainability.

## domain

*n.* a specific sphere of influence or control; a specific field of knowledge or expertise

*synonym*: territory, realm, sphere

(1) **domain** of use, (2) a dependent **domain**

The company's **domain** in the market was expanding to new territories.

## permanent

*adj.* lasting for a long time without essential change

*synonym*: lasting, ceaseless, endless

(1) literature of **permanent** value, (2) **permanent** life insurance

She is searching for a **permanent** residence.

## hint

*n.* an indirect suggestion; a slight but appreciable amount of something

*synonym*: clue, indication, suggestion

(1) **hint** of trouble, (2) helpful **hints**

There was no **hint** of a problem.

**grain**

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

*synonym* : seed, piece, cereal

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

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

**blind**

*adj.* unable to see; unable or unwilling to perceive or understand the true nature of something

*synonym* : sightless, unseeing, random

(1) **blind** to the beauties, (2) **blind** spot

She was nearly **blind** due to severe diabetes.

**alley**

*n.* a narrow lane or way between buildings, often used as a passage or a shortcut; a small street that runs between two other streets

*synonym* : lane, passage, pathway

(1) back **alley**, (2) **alley** cat

They played basketball in the **alley** behind their house.

## Session 2: Spelling

- |   |  |
|---|--|
| 1. alcohol va__r                                | <i>n.</i> a mass of tiny liquid drops in the air   |
| 2. su____ly attacked by an enemy                | <i>adv.</i> quickly and unexpectedly   |
| 3. m__e incident                                | <i>adj.</i> used to emphasize how insignificant or minor someone or something is   |
| 4. pra_____ly impossible to find a parking spot | <i>adv.</i> almost or nearly   |
| 5. a dr____ic rescue at sea                     | <i>adj.</i> very sudden, very excellent, or full of action and excitement  |
| 6. ind_____nce ceremony                         | <i>n.</i> freedom from another's or others' control or influence   |
| 7. app_____te behavior                          | <i>adj.</i> suitable or proper in the circumstances; fitting   |
| 8. a rid_____us amount of money                 | <i>adj.</i> very silly or unreasonable and deserving to be laughed at  |
| 9. great mu_____de                              | <i>n.</i> a large number of things or people   |
| 10. fa___c of creation                          | <i>n.</i> cloth or other material produced by weaving wool, cotton, silk, etc., used for making clothes, covering furniture, etc.  |
| 11. move into a nu_____ll                       | <i>n.</i> the hard, outer covering or protective casing that encloses the kernel or fruit of certain types of nuts, such as walnuts or acorns; a concise and condensed summary or explanation of something |
| 12. an abrupt sl__e                             | <i>n.</i> a surface with one end or side that is higher than the other   |

ANSWERS: 1. vapor, 2. suddenly, 3. mere, 4. practically, 5. dramatic, 6. independence, 7. appropriate, 8. ridiculous, 9. multitude, 10. fabric, 11. nutshell, 12. slope

13. or\_\_\_\_ry annual revenue *adj.* not different, exceptional, or unexpected in any way, especially in quality, ability, size, or degree
14. pra\_\_\_\_\_ly constant *adv.* almost or nearly
15. wo\_\_\_e a few steps *v.* to move or shake unsteadily from side to side or up and down
16. an in\_\_\_\_\_le asset *adj.* impossible or nearly impossible to see
17. 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
18. in\_\_\_e his privacy *v.* to enter aggressively into another's territory by military force for conquest and occupation
19. un\_\_\_\_\_o surgery *v.* to go through something unpleasant or that involves a change
20. pr\_\_\_\_\_le of treatment *n.* a fundamental law or truth that explains or controls how something happens or works
21. a c\_\_e to the diagnosis *n.* an object, a piece of evidence, or some information that helps someone to find the answer to a problem, question, or mystery
22. no do\_\_t about the news *n.* a feeling of being uncertain about something, especially about how good or accurate it is
23. secret ing\_\_\_\_\_nts *n.* one of the things used to make something, especially one of the foods used to make a particular dish

ANSWERS: 13. ordinary, 14. practically, 15. wobble, 16. invisible, 17. discovery, 18. invade, 19. undergo, 20. principle, 21. clue, 22. doubt, 23. ingredient

24. su\_\_\_\_\_ce abuse problem *n.* the real physical material of which a thing or person consist; the most important or main part of some idea or experience; an illegal drug
25. eve\_\_\_\_\_ly become obsolete *adv.* finally, particularly after a long time or a lot of struggle, complications, and so on
26. weak bo\_\_n *n.* a type of subatomic particle that follows Bose-Einstein statistics, which determine how identical particles with integer spins behave
27. mo\_\_\_\_\_ar structure *adj.* of or relating to molecules (= a group of two or more atoms held together by attractive forces known as chemical bonds)
28. sh\_\_\_k with fear *v.* to become smaller, or to make something smaller in size or amount
29. pe\_\_\_\_\_te quickly into the skin *v.* to pass into or through something, often by overcoming resistance
30. di\_\_\_\_\_ar without a trace *v.* to cease to exist or be visible
31. at\_\_\_c nucleus *adj.* of or relating to atom (= the smallest component of an element)
32. una\_\_\_\_\_ed e-mail *adj.* not responded to or explained
33. semiconductor di\_\_e *n.* an electronic component that conducts current primarily in one direction and typically has two electrodes or terminals
34. prevent tooth de\_\_y *n.* the process or state of rotting or decomposition by natural causes such as the action of bacteria and fungi; (verb) to rot or decompose through natural causes

ANSWERS: 24. substance, 25. eventually, 26. boson, 27. molecular, 28. shrink, 29. penetrate, 30. disappear, 31. atomic, 32. unanswered, 33. diode, 34. decay

35. the evidence of the pr\_\_\_\_ce      *n.* the fact or state that someone or something exists, occurs, or is present
36. customer with inc\_\_\_\_\_te credit histories      *adj.* not having all the necessary or appropriate parts; not yet finished
37. the mul\_\_\_\_\_se hypothesis      *n.* a hypothetical space or realm consisting of multiple universes, of which our universe is just one of them
38. pro\_\_\_\_\_on of disease      *n.* the act or process of changing to the next stage or phase or moving forward
39. co\_\_\_\_\_e in midair      *v.* to hit something violently when moving
40. re\_\_\_\_\_ar on the surface      *v.* to show up again or return after not being heard of or seen for a period of time
41. historical co\_\_\_\_\_t      *n.* the circumstances, facts, or conditions that surround a particular event, situation, or statement and that give it meaning
42. uns\_\_\_\_\_ory performance      *adj.* not meeting the desired or expected standard or quality
43. pe\_\_\_\_\_te a cell      *v.* to pass into or through something, often by overcoming resistance
44. the popular ve\_\_\_\_\_t      *n.* an official opinion or decision made in a civil or criminal case or an inquest (= an inquiry into the cause of an unexpected death); the findings of a jury on issues of fact submitted to it for decision
45. tu\_\_\_\_l construction work      *n.* an underground or underwater passage, typically for trains or cars

ANSWERS: 35. presence, 36. incomplete, 37. multiverse, 38. progression, 39. collide, 40. reappear, 41. context, 42. unsatisfactory, 43. penetrate, 44. verdict, 45. tunnel

46. die su\_\_\_\_ly *adv.* quickly and unexpectedly
47. theoretical ph\_\_\_\_\_st *n.* a scientist who specializes in the field of physics
48. so\_\_d employment measures *adj.* hard or firm; characterized by good substantial quality
49. the antiparticle of a ne\_\_\_\_\_n *n.* a subatomic particle with no electric charge that is present in all atomic nuclei except those of ordinary hydrogen
50. al\_\_y cat *n.* a narrow lane or way between buildings, often used as a passage or a shortcut; a small street that runs between two other streets
51. back al\_\_y *n.* a narrow lane or way between buildings, often used as a passage or a shortcut; a small street that runs between two other streets
52. bilateral sy\_\_\_\_\_ry *n.* balance or proportion in design or structure, with elements arranged evenly on either side of an axis
53. un\_\_\_\_\_ly event *adj.* not probable or likely to happen
54. co\_\_\_\_\_e the value *v.* to make a mathematical calculation
55. hazardous li\_\_\_\_d *n.* a substance, such as water or oil that flows freely and is neither a solid nor a gas
56. su\_\_\_\_\_e you're right *v.* to think that something is likely to be actual or possible
57. two-ph\_\_e structure *n.* any stage in a series of events, change, or development

ANSWERS: 46. suddenly, 47. physicist, 48. solid, 49. neutron, 50. alley, 51. alley, 52. symmetry, 53. unlikely, 54. compute, 55. liquid, 56. suppose, 57. phase



58. g\_\_m amount *n.* a metric unit of weight equal to one-thousandth of a kilogram
59. una\_\_\_\_\_ed love *adj.* not responded to or explained
60. some une\_\_\_\_\_ed events *adj.* not anticipated or regarded as likely to happen
61. se\_\_\_\_\_te video into chapter *v.* to force, take, or pull apart; mark as different
62. sh\_\_\_k the tumor *v.* to become smaller, or to make something smaller in size or amount
63. v\_\_t desert *adj.* enormous in size, number, amount, or quantity
64. dec\_\_\_\_\_on of independence *n.* a formal or explicit statement or announcement
65. information ba\_\_\_\_\_r *n.* a fence or other obstruction that makes it hard to move or get in; any condition that makes it difficult to make progress or to achieve an objective
66. mat\_\_\_\_\_cs competition *n.* the science dealing with the logic of quantities, shapes, spaces, and arrangement
67. pr\_\_\_n conductivity *n.* a very small particle with a positive charge equal to the negative charge of an electron that forms part of the nucleus of all atoms
68. industrial ex\_\_\_\_\_on *n.* the process of becoming larger or more extensive, or the result of this process
69. compound the ing\_\_\_\_\_nts *n.* one of the things used to make something, especially one of the foods used to make a particular dish

ANSWERS: 58. gram, 59. unanswered, 60. unexpected, 61. separate, 62. shrink, 63. vast, 64. declaration, 65. barrier, 66. mathematics, 67. proton, 68. expansion, 69. ingredient

70. water va__r in the atmosphere	<i>n.</i> a mass of tiny liquid drops in the air
71. the st_____re of a machine	<i>n.</i> the way of construction of something and the arrangement of its parts, or a complex thing constructed of many parts
72. su_____nd a town	<i>v.</i> to be all around something or somebody
73. a co_____nt wind	<i>adj.</i> happening repeatedly or all the time
74. pro_____on of civilization	<i>n.</i> the act or process of changing to the next stage or phase or moving forward
75. laws of ph_____s	<i>n.</i> the science of matter and energy and their interactions
76. do___n of use	<i>n.</i> a specific sphere of influence or control; a specific field of knowledge or expertise
77. for in_____ce	<i>n.</i> a particular example or single occurrence of something
78. art cr___c	<i>n.</i> someone who expresses opinions about the quality of books, music, etc.
79. bu___e in the champagne glass	<i>n.</i> 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
80. h__t of trouble	<i>n.</i> an indirect suggestion; a slight but appreciable amount of something
81. the great di_____ry of the century	<i>n.</i> the act or process of finding information, a place, or an object, or learning about something that was previously not known

ANSWERS: 70. vapor, 71. structure, 72. surround, 73. constant, 74. progression, 75. physics, 76. domain, 77. instance, 78. critic, 79. bubble, 80. hint, 81. discovery

82. con\_\_\_\_\_ion of the system *n.* the arrangement or pattern of something or a group of related things
83. spare co\_\_\_\_\_nts for cars *n.* one of several parts that combines with others to form something bigger
84. the solid con\_\_\_\_\_nt of blood cells *n.* one of the parts of the whole; a person represented by an elected official
85. int\_\_\_\_\_ng character *adj.* arousing curiosity or interest, often due to a mysterious or complex quality; fascinating or captivating
86. unsolved my\_\_\_\_\_y *n.* something difficult to understand or explain; a secret or enigmatic quality that adds to the fascination or interest of something; a genre of fiction that involves the solution of a crime or a puzzle
87. 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
88. universal es\_\_\_\_\_e *n.* the basic or most important part or quality of something that makes it what it is
89. a good grounding in mat\_\_\_\_\_cs *n.* the science dealing with the logic of quantities, shapes, spaces, and arrangement

ANSWERS: 82. configuration, 83. component, 84. constituent, 85. intriguing, 86. mystery, 87. process, 88. essence, 89. mathematics

90. engine con\_\_\_\_\_ion *n.* the arrangement or pattern of something or a group of related things
91. hy\_\_\_\_\_en gas *n.* the chemical element that is the lightest gas is colorless, odorless, tasteless, and combines with oxygen to form water
92. an app\_\_\_\_\_te time *adj.* suitable or proper in the circumstances; fitting
93. fun\_\_\_\_\_al education *adj.* forming an essential base or core from which everything else develops or is affected
94. nutrient-de\_\_\_e foods *adj.* containing a large number of people or something with little space between them
95. mentally un\_\_\_\_\_le *adj.* lacking solidity, persistence, or firmness and therefore not strong, safe, or likely to continue; lacking control of one's emotions
96. critical m\_\_\_s *n.* a large amount of a substance with no definite shape or form; a large number of people or things grouped or crowded together
97. the list was ar\_\_\_\_\_ed alphabetically *v.* to plan, prepare for, and carry out something
98. cl\_\_\_f diving *n.* a steep rock face, especially one at the edge of the sea or a river
99. centimeter-g\_\_\_m-second system *n.* a metric unit of weight equal to one-thousandth of a kilogram
100. ex\_\_\_\_\_d a lineup *v.* to increase or to make something greater in size, number, or importance

ANSWERS: 90. configuration, 91. hydrogen, 92. appropriate, 93. fundamental, 94. dense, 95. unstable, 96. mass, 97. arrange, 98. cliff, 99. gram, 100. expand

101. colorless li\_\_\_d *n.* a substance, such as water or oil that flows freely and is neither a solid nor a gas
102. 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
103. laws of qu\_\_\_\_\_m mechanics *n.* the smallest amount or unit of something, especially (electromagnetic) energy
104. a na\_\_y smell *adj.* very bad, unpleasant, or offensive
105. b\_\_g his fist on a desk *v.* to hit or cause to hit something in a way that makes a loud noise
106. key co\_\_\_\_\_nt *n.* one of several parts that combines with others to form something bigger
107. enter on the last ph\_\_e *n.* any stage in a series of events, change, or development
108. the stock market co\_\_\_\_\_sed *v.* to fall down or give way suddenly, often after breaking apart
109. nu\_\_\_\_\_ll version *n.* the hard, outer covering or protective casing that encloses the kernel or fruit of certain types of nuts, such as walnuts or acorns; a concise and condensed summary or explanation of something
110. s\_\_d castle *n.* finely granulated particles of rock or mineral material typically found along beaches, deserts, or riverbeds; used in construction, landscaping, and other applications requiring drainage or abrasive action

ANSWERS: 101. liquid, 102. gravity, 103. quantum, 104. nasty, 105. bang, 106. component, 107. phase, 108. collapse, 109. nutshell, 110. sand

111. flour made from gr\_\_n                    *n.* wheat or any other small hard seeds used as a food; a relatively small granular particle of a substance
112. con\_\_\_\_\_nt assembly                *n.* one of the parts of the whole; a person represented by an elected official
113. sp\_\_\_\_\_me continuum                *n.* a four-dimensional continuum consisting of three dimensions of space and one dimension of time, used to describe the physical universe according to Einstein's theory of general relativity
114. gi\_\_t trees                                *adj.* enormous; much bigger or more important than similar items usually are
115. dis\_\_\_\_\_ate over time                *v.* break or cause to break into small fragments
116. have a st\_\_\_e job                        *adj.* firm and steady; not easily moved, disturbed, or changed
117. dis\_\_\_\_\_ate in an explosion            *v.* break or cause to break into small fragments
118. gov\_\_\_\_\_nt funding                    *n.* the group of people with authority to control a country or state
119. sta\_\_\_\_\_cs for cancer                 *n.* the discipline that concerns the collection, organization, analysis, interpretation, and presentation of data
120. former co\_\_\_\_\_ue                      *n.* one of a group of a coworker, especially in a profession or a business
121. toxic ch\_\_\_\_\_als                      *adj.* relating to or connected with chemistry;
122. collaborate with co\_\_\_\_\_ues            *n.* one of a group of a coworker, especially in a profession or a business

ANSWERS: 111. grain, 112. constituent, 113. spacetime, 114. giant, 115. disintegrate, 116. stable, 117. disintegrate, 118. government, 119. statistics, 120. colleague, 121. chemical, 122. colleague

123. ar\_\_\_\_\_e the meeting *v.* to plan, prepare for, and carry out something
124. a bold hyp\_\_\_\_\_is *n.* a proposed idea or explanation that is based on a few known facts but has not yet been proven to be true or accurate
125. helpful h\_\_ts *n.* an indirect suggestion; a slight but appreciable amount of something
126. 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
127. biomass f\_\_l *n.* a substance that is typically burned to generate heat or energy
128. oxygen a\_\_m *n.* the smallest unit of ordinary matter that forms a chemical element, composed of a nucleus and one or more electrons bound to the nucleus
129. notable in\_\_\_\_\_ce *n.* a particular example or single occurrence of something
130. historical phe\_\_\_\_\_on *n.* something that exists and can be perceptible, especially one that is not fully understood
131. quantum sp\_\_\_\_\_me *n.* a four-dimensional continuum consisting of three dimensions of space and one dimension of time, used to describe the physical universe according to Einstein's theory of general relativity

ANSWERS: 123. arrange, 124. hypothesis, 125. hint, 126. process, 127. fuel, 128. atom, 129. instance, 130. phenomenon, 131. spacetime

132. engineering spe\_\_\_\_\_ion *n.* a detailed description of the characteristics, features, or requirements of something, typically a product or system; a written statement that outlines the standards, procedures, or requirements for a project or job
133. v\_\_t majority *adj.* enormous in size, number, amount, or quantity
134. pa\_\_\_\_\_le energy *n.* a small piece of something; a word or piece of a term with grammatical function but little or no significance
135. receive a na\_\_y surprise *adj.* very bad, unpleasant, or offensive
136. tr\_\_\_\_\_rm heat into power *v.* to change in outward structure or looks;
137. a def\_\_\_\_\_ve edition *adj.* serving to provide a final solution or to end a situation; final and not able to be changed
138. exp\_\_\_\_\_nt design *n.* the scientific test conducted to observe what happens and gain new knowledge
139. tu\_\_\_l disease *n.* an underground or underwater passage, typically for trains or cars
140. inc\_\_\_\_\_te information *adj.* not having all the necessary or appropriate parts; not yet finished
141. small mo\_\_\_\_\_les *n.* a group of two or more atoms held together by attractive forces known as chemical bonds
142. cost ba\_\_\_\_\_r *n.* a fence or other obstruction that makes it hard to move or get in; any condition that makes it difficult to make progress or to achieve an objective

ANSWERS: 132. specification, 133. vast, 134. particle, 135. nasty, 136. transform, 137. definitive, 138. experiment, 139. tunnel, 140. incomplete, 141. molecule, 142. barrier



143. un\_\_\_\_\_le weather *adj.* lacking solidity, persistence, or firmness and therefore not strong, safe, or likely to continue; lacking control of one's emotions
144. the or\_\_t of the moon *n.* the path of an object around a celestial body, especially a planet, star, or moon, under the influence of gravity; (of medicine) the bony cavity in the skull that houses the eyeball and its associated structures, like muscles, nerves, and blood vessels
145. bl\_\_d to the beauties *adj.* unable to see; unable or unwilling to perceive or understand the true nature of something
146. ex\_\_\_\_\_on project *n.* the process of becoming larger or more extensive, or the result of this process
147. the concept of the mul\_\_\_\_\_se *n.* a hypothetical space or realm consisting of multiple universes, of which our universe is just one of them
148. nec\_\_\_\_\_ly true *adv.* in an essential manner; in such a way as could not be otherwise
149. ele\_\_\_\_\_cs industry *n.* the branch of physics and technology that deals with the behavior and control of electrons and the use of electronic devices and systems
150. fairly ty\_\_\_\_\_l symptoms *adj.* having the usual characteristics or traits of a specific group of things
151. in st\_\_\_e condition *adj.* firm and steady; not easily moved, disturbed, or changed

ANSWERS: 143. unstable, 144. orbit, 145. blind, 146. expansion, 147. multiverse, 148. necessarily, 149. electronics, 150. typical, 151. stable

152. wo\_\_\_e chair *v.* to move or shake unsteadily from side to side or up and down
153. st\_\_\_\_\_re and function of the brain *n.* the way of construction of something and the arrangement of its parts, or a complex thing constructed of many parts
154. pen\_\_\_\_\_ng analysis *adj.* able to pierce or enter deeply into something; having a sharp, intense quality that cuts through superficiality or confusion
155. they met acc\_\_\_\_\_lly *adv.* by chance or without planning
156. gov\_\_\_\_\_nt bureaucracy *n.* the group of people with authority to control a country or state
157. de\_\_\_e centigrade *n.* a unit of measurement for angles, temperature, or level of proficiency or achievement; a rank or level of academic or professional attainment
158. ty\_\_\_\_\_l leader *adj.* having the usual characteristics or traits of a specific group of things
159. develop in\_\_\_\_\_e itching *adj.* (especially of a feeling) very strong; extremely sharp or severe
160. neutral hydrogen a\_\_ms *n.* the smallest unit of ordinary matter that forms a chemical element, composed of a nucleus and one or more electrons bound to the nucleus
161. a co\_\_\_\_\_nt temperature *adj.* happening repeatedly or all the time
162. un\_\_\_\_\_o a decrease *v.* to go through something unpleasant or that involves a change

ANSWERS: 152. wobble, 153. structure, 154. penetrating, 155. accidentally, 156. government, 157. degree, 158. typical, 159. intense, 160. atom, 161. constant, 162. undergo

163. bl__d spot	<i>adj.</i> unable to see; unable or unwilling to perceive or understand the true nature of something
164. in_____ic nature	<i>adj.</i> belonging naturally; essential
165. a cr_____l issue for women	<i>adj.</i> extremely vital or necessary
166. radioactive de__y	<i>n.</i> the process or state of rotting or decomposition by natural causes such as the action of bacteria and fungi; (verb) to rot or decompose through natural causes
167. in_____ct with one another	<i>v.</i> to communicate or react with somebody
168. co___c background radiation	<i>adj.</i> relating to the universe or cosmos; vast or limitless
169. nuclear ph_____s	<i>n.</i> the science of matter and energy and their interactions
170. test my hyp_____is	<i>n.</i> a proposed idea or explanation that is based on a few known facts but has not yet been proven to be true or accurate
171. Higgs bo__n	<i>n.</i> a type of subatomic particle that follows Bose-Einstein statistics, which determine how identical particles with integer spins behave
172. in_____fy diplomatic efforts	<i>v.</i> to increase or make something increase in extent or strength
173. come into co_____on with my friend	<i>n.</i> an instance of two or more objects or entities crashing into each other, usually resulting in damage, impact, or conflict
174. pr_____le in business	<i>n.</i> a fundamental law or truth that explains or controls how something happens or works

ANSWERS: 163. blind, 164. intrinsic, 165. crucial, 166. decay, 167. interact, 168. cosmic, 169. physics, 170. hypothesis, 171. boson, 172. intensify, 173. collision, 174. principle

175. a dependent do\_\_\_n *n.* a specific sphere of influence or control; a specific field of knowledge or expertise
176. su\_\_\_\_\_e beforehand *v.* to think that something is likely to be actual or possible
177. entirely an\_\_\_\_\_us *adj.* similar or equivalent in some respects, typically as a result of functioning in a similar way
178. acc\_\_\_\_\_ing documents *adj.* being in a position next to or near something or someone
179. an explosive su\_\_\_\_\_ce *n.* the real physical material of which a thing or person consist; the most important or main part of some idea or experience; an illegal drug
180. se\_\_\_\_\_te cream from milk *v.* to force, take, or pull apart; mark as different
181. a m\_\_s of molten rock *n.* a large amount of a substance with no definite shape or form; a large number of people or things grouped or crowded together
182. slide down a sl\_\_e on a ski *n.* a surface with one end or side that is higher than the other
183. 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
184. pen\_\_\_\_\_ng gaze *adj.* able to pierce or enter deeply into something; having a sharp, intense quality that cuts through superficiality or confusion

ANSWERS: 175. domain, 176. suppose, 177. analogous, 178. accompanying, 179. substance, 180. separate, 181. mass, 182. slope, 183. probabilistic, 184. penetrating

185. from a mu\_\_\_\_\_de of sources      *n.* a large number of things or people
186. it is un\_\_\_\_\_ly that he would win the game      *adj.* not probable or likely to happen
187. a stone wall su\_\_\_\_\_nds the palace      *v.* to be all around something or somebody
188. probabilistic qu\_\_\_\_\_m theory      *n.* the smallest amount or unit of something, especially (electromagnetic) energy
189. gi\_\_t tech company      *adj.* enormous; much bigger or more important than similar items usually are
190. ex\_\_\_d agricultural output      *v.* to increase or to make something greater in size, number, or importance
191. m\_\_e acquaintance      *adj.* used to emphasize how insignificant or minor someone or something is
192. co\_\_\_\_\_on detection      *n.* an instance of two or more objects or entities crashing into each other, usually resulting in damage, impact, or conflict
193. a gr\_\_n of sand      *n.* wheat or any other small hard seeds used as a food; a relatively small granular particle of a substance
194. smokeless f\_\_l      *n.* a substance that is typically burned to generate heat or energy
195. acc\_\_\_\_\_lly coincide      *adv.* by chance or without planning
196. at\_\_\_c bomb      *adj.* of or relating to atom (= the smallest component of an element)
197. con\_\_\_\_\_ve information      *adj.* serving to settle an issue or put an end to doubt or uncertainty; irrefutable and leaves no room for doubt

ANSWERS: 185. multitude, 186. unlikely, 187. surround, 188. quantum, 189. giant, 190. expand, 191. mere, 192. collision, 193. grain, 194. fuel, 195. accidentally, 196. atomic, 197. conclusive

198. severe cr\_\_\_c *n.* someone who expresses opinions about the quality of books, music, etc.
199. so\_\_d ally *adj.* hard or firm; characterized by good substantial quality
200. s\_\_d dunes *n.* finely granulated particles of rock or mineral material typically found along beaches, deserts, or riverbeds; used in construction, landscaping, and other applications requiring drainage or abrasive action
201. his majestic pr\_\_\_\_\_ce *n.* the fact or state that someone or something exists, occurs, or is present
202. mo\_\_\_\_\_ar biology *adj.* of or relating to molecules (= a group of two or more atoms held together by attractive forces known as chemical bonds)
203. a c\_\_e about the crime *n.* an object, a piece of evidence, or some information that helps someone to find the answer to a problem, question, or mystery
204. light-emitting di\_\_e *n.* an electronic component that conducts current primarily in one direction and typically has two electrodes or terminals
205. vanilla es\_\_\_\_\_e *n.* the basic or most important part or quality of something that makes it what it is
206. co\_\_\_\_\_e head-on *v.* to hit something violently when moving
207. acc\_\_\_\_\_ing equipment *adj.* being in a position next to or near something or someone

ANSWERS: 198. critic, 199. solid, 200. sand, 201. presence, 202. molecular, 203. clue, 204. diode, 205. essence, 206. collide, 207. accompanying

208. 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
209. 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
210. b\_\_g a phone down      *v.* to hit or cause to hit something in a way that makes a loud noise
211. def\_\_\_\_\_ve answer      *adj.* serving to provide a final solution or to end a situation; final and not able to be changed
212. heavy hy\_\_\_\_\_en      *n.* the chemical element that is the lightest gas is colorless, odorless, tasteless, and combines with oxygen to form water
213. int\_\_\_\_\_ng concept      *adj.* arousing curiosity or interest, often due to a mysterious or complex quality; fascinating or captivating
214. a rid\_\_\_\_\_us suggestion      *adj.* very silly or unreasonable and deserving to be laughed at
215. ob\_\_\_\_\_e a tradition      *v.* to watch or notice something carefully, often to gather information or insights; to take note of something or someone; to celebrate or commemorate a special event or occasion
216. a planetary or\_\_t      *n.* the path of an object around a celestial body, especially a planet, star, or moon, under the influence of gravity; (of medicine) the bony cavity in the skull that houses the eyeball and its associated structures, like muscles, nerves, and blood vessels

ANSWERS: 208. mechanics, 209. universe, 210. bang, 211. definitive, 212. hydrogen, 213. intriguing, 214. ridiculous, 215. observe, 216. orbit

217. achieve the hi_____ic feat	<i>adj.</i> famous or significant in history, or potentially so
218. pe_____nt life insurance	<i>adj.</i> lasting for a long time without essential change
219. not nec_____ly a problem	<i>adv.</i> in an essential manner; in such a way as could not be otherwise
220. in_____le stars	<i>adj.</i> impossible or nearly impossible to see
221. in___e other tissues	<i>v.</i> to enter aggressively into another's territory by military force for conquest and occupation
222. hi_____ic accomplishment	<i>adj.</i> famous or significant in history, or potentially so
223. a hand-loomed fa___c	<i>n.</i> cloth or other material produced by weaving wool, cotton, silk, etc., used for making clothes, covering furniture, etc.
224. pro_____tic model	<i>adj.</i> characterized by the influence of chance or probability; involving the use of statistical models or methods to estimate likelihoods or risks
225. series of exp_____nts	<i>n.</i> the scientific test conducted to observe what happens and gain new knowledge
226. co_____e fiercely	<i>v.</i> to strive to achieve more success than someone or something
227. official sta_____cs	<i>n.</i> the discipline that concerns the collection, organization, analysis, interpretation, and presentation of data
228. bachelor's de___e	<i>n.</i> a unit of measurement for angles, temperature, or level of proficiency or achievement; a rank or level of academic or professional attainment

ANSWERS: 217. historic, 218. permanent, 219. necessarily, 220. invisible, 221. invade, 222. historic, 223. fabric, 224. probabilistic, 225. experiment, 226. compete, 227. statistics, 228. degree



229. 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
230. 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
231. the\_\_\_\_\_al physicist      *adj.* relating to the concepts and principles upon which a particular topic is founded, rather than practice and experience
232. axial sy\_\_\_\_\_ry      *n.* balance or proportion in design or structure, with elements arranged evenly on either side of an axis
233. my\_\_\_\_\_y novel      *n.* something difficult to understand or explain; a secret or enigmatic quality that adds to the fascination or interest of something; a genre of fiction that involves the solution of a crime or a puzzle
234. a bold cl\_\_f      *n.* a steep rock face, especially one at the edge of the sea or a river
235. the\_\_\_\_\_al models      *adj.* relating to the concepts and principles upon which a particular topic is founded, rather than practice and experience
236. co\_\_\_\_\_e against a friend      *v.* to strive to achieve more success than someone or something

ANSWERS: 229. universe, 230. nucleus, 231. theoretical, 232. symmetry, 233. mystery, 234. cliff, 235. theoretical, 236. compete

237. legal co\_\_\_\_\_t      *n.* the circumstances, facts, or conditions that surround a particular event, situation, or statement and that give it meaning
238. get in\_\_\_\_\_t access      *adj.* happening immediately, with no delay
239. ob\_\_\_\_\_e wildlife      *v.* to watch or notice something carefully, often to gather information or insights; to take note of something or someone; to celebrate or commemorate a special event or occasion
240. in\_\_\_\_\_ct directly with customers      *v.* to communicate or react with somebody
241. a ch\_\_\_\_\_al compound      *adj.* relating to or connected with chemistry;
242. cr\_\_\_\_\_l information      *adj.* extremely vital or necessary
243. talented ph\_\_\_\_\_st      *n.* a scientist who specializes in the field of physics
244. p\_\_e a challenge      *v.* to present a risk, problem, or other issues that must be addressed
245. ensure a smooth tra\_\_\_\_\_on      *n.* the process or period of changing from one state or circumstance to another
246. unilateral dec\_\_\_\_\_on      *n.* a formal or explicit statement or announcement
247. an or\_\_\_\_\_ry school      *adj.* not different, exceptional, or unexpected in any way, especially in quality, ability, size, or degree
248. d\_n him for the unpaid bills      *adj.* having a dull brownish-gray color, often used to describe the color of certain animals, such as a dun horse; (verb) to repeatedly and insistently demand payment of a debt or money owed

ANSWERS: 237. context, 238. instant, 239. observe, 240. interact, 241. chemical, 242. crucial, 243. physicist, 244. pose, 245. transition, 246. declaration, 247. ordinary, 248. dun

249. functional spe\_\_\_\_\_ion      *n.* a detailed description of the characteristics, features, or requirements of something, typically a product or system; a written statement that outlines the standards, procedures, or requirements for a project or job
250. mo\_\_\_\_\_le behavior      *n.* a group of two or more atoms held together by attractive forces known as chemical bonds
251. ready to co\_\_\_\_\_se      *v.* to fall down or give way suddenly, often after breaking apart
252. uns\_\_\_\_\_ory on several counts      *adj.* not meeting the desired or expected standard or quality
253. 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
254. tr\_\_\_\_\_rm an education system      *v.* to change in outward structure or looks;
255. jury ve\_\_\_\_\_t      *n.* an official opinion or decision made in a civil or criminal case or an inquest (= an inquiry into the cause of an unexpected death); the findings of a jury on issues of fact submitted to it for decision
256. natural el\_\_\_\_\_ce      *n.* the quality of being graceful and stylish in appearance or manner
257. 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

ANSWERS: 249. specification, 250. molecule, 251. collapse, 252. unsatisfactory, 253. gravity, 254. transform, 255. verdict, 256. elegance, 257. nucleus

258. an une\_\_\_\_\_ed visitor *adj.* not anticipated or regarded as likely to happen
259. 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
260. natural phe\_\_\_\_\_on *n.* something that exists and can be perceptible, especially one that is not fully understood
261. dispel do\_\_ts *n.* a feeling of being uncertain about something, especially about how good or accurate it is
262. cal\_\_\_\_\_on of loss and gain *n.* the act or process of using numbers to judge an amount of something
263. second co\_\_\_c velocity *adj.* relating to the universe or cosmos; vast or limitless
264. make a cal\_\_\_\_\_on *n.* the act or process of using numbers to judge an amount of something
265. in\_\_\_\_\_e heat *adj.* (especially of a feeling) very strong; extremely sharp or severe
266. pr\_\_\_n decay *n.* a very small particle with a positive charge equal to the negative charge of an electron that forms part of the nucleus of all atoms
267. make dr\_\_\_\_\_ic changes *adj.* very sudden, very excellent, or full of action and excitement
268. financial ind\_\_\_\_\_nce *n.* freedom from another's or others' control or influence

ANSWERS: 258. unexpected, 259. mechanics, 260. phenomenon, 261. doubt, 262. calculation, 263. cosmic, 264. calculation, 265. intense, 266. proton, 267. dramatic, 268. independence

269. 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
270. d\_n horse *adj.* having a dull brownish-gray color, often used to describe the color of certain animals, such as a dun horse; (verb) to repeatedly and insistently demand payment of a debt or money owed
271. tra\_\_\_\_\_on phase *n.* the process or period of changing from one state or circumstance to another
272. in\_\_\_\_\_fy a good relationship *v.* to increase or make something increase in extent or strength
273. co\_\_\_\_\_e an average score *v.* to make a mathematical calculation
274. re\_\_\_\_\_ar throughout this book *v.* to show up again or return after not being heard of or seen for a period of time
275. de\_\_e forests *adj.* containing a large number of people or something with little space between them
276. di\_\_\_\_\_ar after a week *v.* to cease to exist or be visible
277. p\_\_e a significant threat to my company *v.* to present a risk, problem, or other issues that must be addressed
278. eve\_\_\_\_\_ly succeed *adv.* finally, particularly after a long time or a lot of struggle, complications, and so on
279. charged pa\_\_\_\_\_le *n.* a small piece of something; a word or piece of a term with grammatical function but little or no significance

ANSWERS: 269. bubble, 270. dun, 271. transition, 272. intensify, 273. compute, 274. reappear, 275. dense, 276. disappear, 277. pose, 278. eventually, 279. particle

280. ele\_\_\_\_\_cs store *n.* the branch of physics and technology that deals with the behavior and control of electrons and the use of electronic devices and systems
281. an\_\_\_\_\_us fashion *adj.* similar or equivalent in some respects, typically as a result of functioning in a similar way
282. austere el\_\_\_\_\_ce *n.* the quality of being graceful and stylish in appearance or manner
283. con\_\_\_\_\_ve statement *adj.* serving to settle an issue or put an end to doubt or uncertainty; irrefutable and leaves no room for doubt
284. in\_\_\_\_\_ic value *adj.* belonging naturally; essential
285. fun\_\_\_\_\_al rights *adj.* forming an essential base or core from which everything else develops or is affected
286. an in\_\_\_\_\_t reply *adj.* happening immediately, with no delay
287. ne\_\_\_\_\_n acceleration *n.* a subatomic particle with no electric charge that is present in all atomic nuclei except those of ordinary hydrogen
288. literature of pe\_\_\_\_\_nt value *adj.* lasting for a long time without essential change

ANSWERS: 280. electronics, 281. analogous, 282. elegance, 283. conclusive, 284. intrinsic, 285. fundamental, 286. instant, 287. neutron, 288. permanent

## Session 3: Fill in the Blanks

1. The store is \_\_\_\_\_ empty.

*adv.* almost or nearly

2. The train has to \_\_\_\_\_ rigorous safety checks.

*v.* to go through something unpleasant or that involves a change

3. The search for new \_\_\_\_\_ particles is one of the most exciting areas of modern physics.

*n.* a type of subatomic particle that follows Bose-Einstein statistics, which determine how identical particles with integer spins behave

4. Relations between the two countries have been relatively \_\_\_\_\_ due to the summit meeting.

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

5. The corporation \_\_\_\_\_ dominated the entire tobacco business.

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

6. A \_\_\_\_\_ star is incredibly dense and has a strong gravitational pull.

*n.* a subatomic particle with no electric charge that is present in all atomic nuclei except those of ordinary hydrogen

7. He has a flair for \_\_\_\_\_.

*n.* the science dealing with the logic of quantities, shapes, spaces, and arrangement

ANSWERS: 1. practically, 2. undergo, 3. boson, 4. stable, 5. eventually, 6. neutron, 7. mathematics

8. The era of the industrial revolution was a crucial \_\_\_\_\_ of history.  
*n.* any stage in a series of events, change, or development
9. The \_\_\_\_\_ surrounding the disappearance of the traveler has yet to be solved by authorities.  
*n.* something difficult to understand or explain; a secret or enigmatic quality that adds to the fascination or interest of something; a genre of fiction that involves the solution of a crime or a puzzle
10. \_\_\_\_\_ rays are high-energy particles that originate from outside the solar system.  
*adj.* relating to the universe or cosmos; vast or limitless
11. The President made the \_\_\_\_\_ of war.  
*n.* a formal or explicit statement or announcement
12. My father's death \_\_\_\_\_ my life completely.  
*v.* to change in outward structure or looks;
13. This accident was something that happened \_\_\_\_\_.  
*adv.* in an essential manner; in such a way as could not be otherwise
14. I need to \_\_\_\_\_ plans with him for the celebration.  
*v.* to plan, prepare for, and carry out something
15. The study provided \_\_\_\_\_ proof of the effectiveness of the new drug.  
*adj.* serving to provide a final solution or to end a situation; final and not able to be changed

ANSWERS: 8. phase, 9. mystery, 10. Cosmic, 11. declaration, 12. transformed, 13. necessarily, 14. arrange, 15. definitive



16. The Court of Appeals upheld the \_\_\_\_\_.

- n.* an official opinion or decision made in a civil or criminal case or an inquest (= an inquiry into the cause of an unexpected death); the findings of a jury on issues of fact submitted to it for decision

17. The \_\_\_\_\_ of molecules in steel changes significantly with temperature.

- n.* the arrangement or pattern of something or a group of related things

18. The \_\_\_\_\_ of people who do not own property is politically impotent.

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

19. The firm has grown into a large \_\_\_\_\_ manufacturing.

- adj.* relating to or connected with chemistry;

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

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

21. What do you \_\_\_\_\_ the culprit's motive was?

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

22. We need to \_\_\_\_\_ the aspect of his personality from the part of his competence when making an investment decision.

- v.* to force, take, or pull apart; mark as different

23. The \_\_\_\_\_ session of the Diet opened.

- adj.* not different, exceptional, or unexpected in any way, especially in quality, ability, size, or degree

ANSWERS: 16. verdict, 17. configuration, 18. mass, 19. chemical, 20. experiments, 21. suppose, 22. separate, 23. ordinary

24. The revitalization of technology companies is \_\_\_\_\_ to the country's growth.  
*adj.* extremely vital or necessary
25. The spider was camouflaged on the \_\_\_\_\_ rock, waiting for its next prey.  
*adj.* having a dull brownish-gray color, often used to describe the color of certain animals, such as a dun horse; (verb) to repeatedly and insistently demand payment of a debt or money owed
26. The \_\_\_\_\_ of the argument was well-presented.  
*n.* the real physical material of which a thing or person consist; the most important or main part of some idea or experience; an illegal drug
27. These articles cite five \_\_\_\_\_ of climate change.  
*n.* a particular example or single occurrence of something
28. I have no intention to \_\_\_\_\_ your privacy.  
*v.* to enter aggressively into another's territory by military force for conquest and occupation
29. 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
30. The service was \_\_\_\_\_ and the customer demanded a refund.  
*adj.* not meeting the desired or expected standard or quality
31. 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

ANSWERS: 24. crucial, 25. dun-colored, 26. substance, 27. instances, 28. invade, 29. particles, 30. unsatisfactory, 31. process

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

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

33. The rocket engine is used to put the satellite into \_\_\_\_\_.

*n.* the path of an object around a celestial body, especially a planet, star, or moon, under the influence of gravity; (of medicine) the bony cavity in the skull that houses the eyeball and its associated structures, like muscles, nerves, and blood vessels

34. I tried to \_\_\_\_\_ the efficiency of the investment.

*v.* to make a mathematical calculation

35. Who answers \_\_\_\_\_ knows little.

*adv.* quickly and unexpectedly

36. She is searching for a \_\_\_\_\_ residence.

*adj.* lasting for a long time without essential change

37. The vase \_\_\_\_\_ into pieces when it fell to the ground.

*v.* break or cause to break into small fragments

38. Advocates for legal reform hear less harsh words from their \_\_\_\_\_.

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

39. Pardon me for leaving some of your questions \_\_\_\_\_.

*adj.* not responded to or explained

40. The researcher criticized the study due to \_\_\_\_\_ data.

*adj.* not having all the necessary or appropriate parts; not yet finished

ANSWERS: 32. physics, 33. orbit, 34. compute, 35. suddenly, 36. permanent, 37. disintegrated, 38. critics, 39. unanswered, 40. incomplete

41. The Chinese people have accomplished several \_\_\_\_\_ feats.

*adj.* famous or significant in history, or potentially so

42. The workers had to dig through solid rock to create the vehicular \_\_\_\_\_ allowing the cars to pass through the mountain.

*n.* an underground or underwater passage, typically for trains or cars

43. The hut stands on the \_\_\_\_\_ of a mountain.

*n.* a surface with one end or side that is higher than the other

44. This shirt will \_\_\_\_\_ in the wash.

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

45. These synthetic \_\_\_\_\_ are used in military vests because of their excellent abrasion resistance.

*n.* cloth or other material produced by weaving wool, cotton, silk, etc., used for making clothes, covering furniture, etc.

46. That statement by the prime minister drew \_\_\_\_\_ international criticism.

*adj.* (especially of a feeling) very strong; extremely sharp or severe

47. The various universes within the \_\_\_\_\_ are sometimes called parallel universes.

*n.* a hypothetical space or realm consisting of multiple universes, of which our universe is just one of them

48. The research provided \_\_\_\_\_ evidence that the new treatment was effective.

*adj.* serving to settle an issue or put an end to doubt or uncertainty; irrefutable and leaves no room for doubt

ANSWERS: 41. historic, 42. tunnel, 43. slope, 44. shrink, 45. fabrics, 46. intense, 47. multiverse, 48. conclusive

49. The project's \_\_\_\_\_ outlined the goals and requirements for the team to complete.
- n.* a detailed description of the characteristics, features, or requirements of something, typically a product or system; a written statement that outlines the standards, procedures, or requirements for a project or job
50. 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
51. Human behavior has \_\_\_\_\_ characteristics.
- adj.* forming an essential base or core from which everything else develops or is affected
52. The curvature of \_\_\_\_\_ is affected by the presence of mass and energy.
- n.* a four-dimensional continuum consisting of three dimensions of space and one dimension of time, used to describe the physical universe according to Einstein's theory of general relativity
53. Einstein was an outstanding and famous \_\_\_\_\_ of the 20th century.
- n.* a scientist who specializes in the field of physics
54. The chemicals \_\_\_\_\_ a massive health risk.
- v.* to present a risk, problem, or other issues that must be addressed
55. The weather turned \_\_\_\_\_.
- adj.* very bad, unpleasant, or offensive
56. The company's \_\_\_\_\_ in the market was expanding to new territories.
- n.* a specific sphere of influence or control; a specific field of knowledge or expertise

ANSWERS: 49. specifications, 50. probabilistic, 51. fundamental, 52. spacetime, 53. physicist, 54. pose, 55. nasty, 56. domain

57. The table \_\_\_\_\_ a little when I put my drink on it.

*v.* to move or shake unsteadily from side to side or up and down

58. 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

59. This evidence supports the big-bang \_\_\_\_\_.

*n.* a proposed idea or explanation that is based on a few known facts but has not yet been proven to be true or accurate

60. The error in the \_\_\_\_\_ was attributable to rounding.

*n.* the act or process of using numbers to judge an amount of something

61. University teaches the art of understanding the \_\_\_\_\_ of the matter.

*n.* the basic or most important part or quality of something that makes it what it is

62. My father tried to \_\_\_\_\_ mathematics into my head since childhood.

*v.* to hit or cause to hit something in a way that makes a loud noise

63. He lost the election by \_\_\_\_\_ votes.

*adj.* used to emphasize how insignificant or minor someone or something is

64. The statement had a \_\_\_\_\_ impact on house prices.

*adj.* very sudden, very excellent, or full of action and excitement

65. The entire mountain is covered in \_\_\_\_\_ rainforest.

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

ANSWERS: 57. wobbled, 58. liquid, 59. hypothesis, 60. calculation, 61. essence, 62. bang, 63. mere, 64. dramatic, 65. dense

66. It would be \_\_\_\_\_ to dress nicely for the wedding.

*adj.* suitable or proper in the circumstances; fitting

67. It's important to understand the \_\_\_\_\_ of a situation before making a decision.

*n.* the circumstances, facts, or conditions that surround a particular event, situation, or statement and that give it meaning

68. Clouds form when water \_\_\_\_\_ rises to the upper atmosphere.

*n.* a mass of tiny liquid drops in the air

69. The \_\_\_\_\_ and the oxygen react and then form water.

*n.* the chemical element that is the lightest gas is colorless, odorless, tasteless, and combines with oxygen to form water

70. The \_\_\_\_\_ beauty of the painting was immediately apparent to all who viewed it.

*adj.* belonging naturally; essential

71. 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

72. The \_\_\_\_\_ of her dress was breathtaking.

*n.* the quality of being graceful and stylish in appearance or manner

73. The company is undergoing an \_\_\_\_\_ opening new locations in several states.

*n.* the process of becoming larger or more extensive, or the result of this process

ANSWERS: 66. appropriate, 67. context, 68. vapor, 69. hydrogen, 70. intrinsic, 71. nucleus, 72. elegance, 73. expansion,

74. \_\_\_\_\_ weight is the sum of all the atoms.

*adj.* of or relating to molecules (= a group of two or more atoms held together by attractive forces known as chemical bonds)

75. The \_\_\_\_\_ music was soothing and added to the ambiance.

*adj.* being in a position next to or near something or someone

76. Absolute zero is the lowest \_\_\_\_\_ temperature.

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

77. He should \_\_\_\_\_ more with his colleagues.

*v.* to communicate or react with somebody

78. The passage of the bill is \_\_\_\_\_.

*adj.* not probable or likely to happen

79. The novel's plot was \_\_\_\_\_ and kept readers in their seats.

*adj.* arousing curiosity or interest, often due to a mysterious or complex quality; fascinating or captivating

80. How much is it per one hundred \_\_\_\_\_

*n.* a metric unit of weight equal to one-thousandth of a kilogram

81. He stood at the edge of the \_\_\_\_\_ and looked out to sea.

*n.* a steep rock face, especially one at the edge of the sea or a river

82. On three sides, mountains \_\_\_\_\_ the settlement.

*v.* to be all around something or somebody

ANSWERS: 74. Molecular, 75. accompanying, 76. theoretical, 77. interact, 78. unlikely, 79. intriguing, 80. grams?, 81. cliff, 82. surround



83. The police couldn't find a \_\_\_\_\_ to her whereabouts.  
*n.* an object, a piece of evidence, or some information that helps someone to find the answer to a problem, question, or mystery
84. Western ideology slowly \_\_\_\_\_ through the eastern countries.  
*v.* to pass into or through something, often by overcoming resistance
85. The dead body was in an advanced state of \_\_\_\_\_.  
*n.* the process or state of rotting or decomposition by natural causes such as the action of bacteria and fungi; (verb) to rot or decompose through natural causes
86. The roof finally \_\_\_\_\_ after three days and three nights of heavy snowfall.  
*v.* to fall down or give way suddenly, often after breaking apart
87. The company specializes in manufacturing and selling cutting-edge \_\_\_\_\_.  
*n.* the branch of physics and technology that deals with the behavior and control of electrons and the use of electronic devices and systems
88. This company is faced with a \_\_\_\_\_ of problems.  
*n.* a large number of things or people
89. 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
90. 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

ANSWERS: 83. clue, 84. penetrates, 85. decay, 86. collapsed, 87. electronics, 88. multitude, 89. mechanics, 90. universe

91. A rainbow is a natural \_\_\_\_\_.

- n.* something that exists and can be perceptible, especially one that is not fully understood

92. Efficiency isn't an essential \_\_\_\_\_ here; fairness is.

- n.* a fundamental law or truth that explains or controls how something happens or works

93. The solar wind is composed almost entirely of electrons and \_\_\_\_\_.

- n.* a very small particle with a positive charge equal to the negative charge of an electron that forms part of the nucleus of all atoms

94. The building had a \_\_\_\_\_ pattern that was pleasing to the eye.

- n.* balance or proportion in design or structure, with elements arranged evenly on either side of an axis

95. The \_\_\_\_\_ of tectonic plates can result in new mountain ranges, such as the Himalayas or the Alps.

- n.* an instance of two or more objects or entities crashing into each other, usually resulting in damage, impact, or conflict

96. You must \_\_\_\_\_ with others to obtain this position.

- v.* to strive to achieve more success than someone or something

97. Each \_\_\_\_\_ member of the council has the right to vote on important decisions.

- n.* one of the parts of the whole; a person represented by an elected official

98. A \_\_\_\_\_ audience viewed the broadcast.

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

ANSWERS: 91. phenomenon, 92. principle, 93. protons, 94. symmetry, 95. collision, 96. compete, 97. constituent, 98. vast

99. The \_\_\_\_\_ in the circuit prevented the current from flowing in the wrong direction.
- n.* an electronic component that conducts current primarily in one direction and typically has two electrodes or terminals
100. They hope to \_\_\_\_\_ their business worldwide.
- v.* to increase or to make something greater in size, number, or importance
101. Can you explain your argument in a \_\_\_\_\_
- n.* the hard, outer covering or protective casing that encloses the kernel or fruit of certain types of nuts, such as walnuts or acorns; a concise and condensed summary or explanation of something
102. Rebels have pledged to \_\_\_\_\_ the armed struggle against the dictatorship.
- v.* to increase or make something increase in extent or strength
103. She received her \_\_\_\_\_ in psychology from the university.
- n.* a unit of measurement for angles, temperature, or level of proficiency or achievement; a rank or level of academic or professional attainment
104. \_\_\_\_\_ is the start, not the end, of intelligence.
- n.* a feeling of being uncertain about something, especially about how good or accurate it is
105. The researchers try to discover a common \_\_\_\_\_ in all types of successful organizations.
- n.* one of several parts that combines with others to form something bigger
106. He was \_\_\_\_\_ killed by friendly fire.
- adv.* by chance or without planning

ANSWERS: 99. diode, 100. expand, 101. nutshell?, 102. intensify, 103. degree, 104. Doubt, 105. component, 106. accidentally

107. Ordinary air purifiers cannot adequately remove pollen \_\_\_\_\_.

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

108. I decided to seek counseling on the advice of my \_\_\_\_\_.

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

109. There was no \_\_\_\_\_ of a problem.

*n.* an indirect suggestion; a slight but appreciable amount of something

110. The \_\_\_\_\_ on the beach was warm and golden.

*n.* finely granulated particles of rock or mineral material typically found along beaches, deserts, or riverbeds; used in construction, landscaping, and other applications requiring drainage or abrasive action

111. She was nearly \_\_\_\_\_ due to severe diabetes.

*adj.* unable to see; unable or unwilling to perceive or understand the true nature of something

112. There is nothing more valuable than \_\_\_\_\_ and freedom.

*n.* freedom from another's or others' control or influence

113. The shape of the DNA \_\_\_\_\_ is a double helix.

*n.* a group of two or more atoms held together by attractive forces known as chemical bonds

114. The \_\_\_\_\_ smell of freshly brewed coffee filled the room.

*adj.* able to pierce or enter deeply into something; having a sharp, intense quality that cuts through superficiality or confusion

ANSWERS: 107. grains, 108. colleague, 109. hint, 110. sand, 111. blind, 112. independence, 113. molecule, 114. penetrating

115. 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
116. The police placed a \_\_\_\_\_ across the street to halt traffic.
- n.* a fence or other obstruction that makes it hard to move or get in; any condition that makes it difficult to make progress or to achieve an objective
117. The \_\_\_\_\_ demonstrate that poverty and unemployment are genuine problems.
- n.* the discipline that concerns the collection, organization, analysis, interpretation, and presentation of data
118. Everyone regarded the theory he advocated as \_\_\_\_\_ but was later proven correct.
- adj.* very silly or unreasonable and deserving to be laughed at
119. The \_\_\_\_\_ jets gradually dominate the world's airlines.
- adj.* enormous; much bigger or more important than similar items usually are
120. The outermost electron shell of an \_\_\_\_\_ determines its chemical characteristics.
- n.* the smallest unit of ordinary matter that forms a chemical element, composed of a nucleus and one or more electrons bound to the nucleus
121. The company has made great strides in its \_\_\_\_\_ toward sustainability.
- n.* the act or process of changing to the next stage or phase or moving forward
122. The federal \_\_\_\_\_ is planning to increase taxes for the next fiscal year.
- n.* the group of people with authority to control a country or state

ANSWERS: 115. gravity, 116. barrier, 117. statistics, 118. ridiculous, 119. giant, 120. atom, 121. progression, 122. government

123. The nation's healthcare system is in \_\_\_\_\_ at the moment.

*n.* the process or period of changing from one state or circumstance to another

124. This artwork is \_\_\_\_\_ of her work.

*adj.* having the usual characteristics or traits of a specific group of things

125. The phenomenon is \_\_\_\_\_ at optical wavelengths.

*adj.* impossible or nearly impossible to see

126. The tower proved to be \_\_\_\_\_ in the high wind.

*adj.* lacking solidity, persistence, or firmness and therefore not strong, safe, or likely to continue; lacking control of one's emotions

127. Greed is the primary \_\_\_\_\_ in the making of criminals.

*n.* one of the things used to make something, especially one of the foods used to make a particular dish

128. They played basketball in the \_\_\_\_\_ behind their house.

*n.* a narrow lane or way between buildings, often used as a passage or a shortcut; a small street that runs between two other streets

129. The interests of the two countries \_\_\_\_\_.

*v.* to hit something violently when moving

130. The path to a solid online \_\_\_\_\_ necessitates a high technical ability.

*n.* the fact or state that someone or something exists, occurs, or is present

131. The \_\_\_\_\_ of water is called ice.

*adj.* hard or firm; characterized by good substantial quality

ANSWERS: 123. transition, 124. typical, 125. invisible, 126. unstable, 127. ingredient, 128. alley, 129. collide, 130. presence, 131. solid-state

132. 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

133. 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

134. It is important to \_\_\_\_\_ safety procedures in the workplace to prevent accidents.

- v.* to watch or notice something carefully, often to gather information or insights; to take note of something or someone; to celebrate or commemorate a special event or occasion

135. His pleasant face turned cold in an \_\_\_\_\_.

- adj.* happening immediately, with no delay

136. The human heart is \_\_\_\_\_ to a pump in a plumbing system.

- adj.* similar or equivalent in some respects, typically as a result of functioning in a similar way

137. The \_\_\_\_\_ rainstorm caused the collapse of the corral.

- adj.* not anticipated or regarded as likely to happen

138. \_\_\_\_\_ dropping wears away the stone.

- adj.* happening repeatedly or all the time

139. Big techs are now eager to develop \_\_\_\_\_ computers.

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

ANSWERS: 132. discovery, 133. bubble, 134. observe, 135. instant, 136. analogous, 137. unexpected, 138. Constant, 139. quantum

140. They watched the train \_\_\_\_\_ into the distance.

*v.* to cease to exist or be visible

141. Cancer has \_\_\_\_\_ at the same site.

*v.* to show up again or return after not being heard of or seen for a period of time

142. Carbon has an \_\_\_\_\_ mass of 12.

*adj.* of or relating to atom (= the smallest component of an element)

143. The \_\_\_\_\_ scarcity most severely impacted the manufacturing sector

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

144. The organizational \_\_\_\_\_ of start-ups is often flat and straightforward.

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

ANSWERS: 140. disappear, 141. reappeared, 142. atomic, 143. fuel, 144. structure