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Vocabulary Builder Reference from...

Joel Levine: Why we need to go back to Mars | TED Talk

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

All Words

IMPORTANT

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Session 1: Word List

photograph

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

synonym : photo, picture, snapshot

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

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

obtain

v. to get something, especially by making a great effort

synonym : accept, acquire, receive

(1) **obtain** a license, (2) **obtain** a bid

Where can I **obtain** the application form?

planet

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

synonym : earth, world, globe

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

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

mar

v. to damage or spoil the appearance or surface of something

synonym : damage, deface, disfigure

(1) **mar** a proper relationship, (2) **mar** the reputation
The scratches on the car **marred** its otherwise perfect appearance.

flyby

n. a close approach to a celestial body, especially a planet, by a spacecraft without landing or entering orbit
synonym: passby, flyover, whizz by

(1) **flyby** mission, (2) a five-plane **flyby**

The spacecraft will conduct a **flyby** of the moon to gather data.

mariner

n. a sailor or seaman; someone who works or travels on a boat or ship

synonym: sailor, seafarer, navigator

(1) **mariner's** compass, (2) seasoned **mariner**

The experienced **mariner** guided the ship through treacherous waters.

journal

n. a newspaper or magazine specialized in a specific topic or profession

synonym: periodical, diary, bulletin

(1) scientific **journal**, (2) **journal** articles

The physician is reading the **journals** related to medicine

editorial

adj. relating to the expression of opinions or interpretations in the media

synonym: comment, opinion, critique

(1) gain **editorial** help, (2) an **editorial** article

The newspaper published an **editorial** on the current state of the economy.

fortunate

adj. having good luck or lucky

synonym: fortuitous, lucky, blessed

(1) **fortunate** situation, (2) less **fortunate** person

He was pretty **fortunate** to pass the exam.

headquarter

n. the central office or location from which a business or organization is managed

synonym : base, center, command

(1) administrative **headquarter**, (2) an emergency

headquarter

The company decided to move its **headquarters** to New York City.

extensive

adj. covering a large area; having a wide range

synonym : ample, comprehensive, vast

(1) **extensive** experience, (2) have **extensive** vocabulary

The incident attracted **extensive** media coverage throughout the world.

quest

n. a long or challenging search for something

synonym : exploration, inquisition, pursuit

(1) the **quest** for truth, (2) on a **quest** for happiness

That adventurer traveled in **quest** of buried treasure.

amazing

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

synonym : exceptional, extraordinary, wonderful

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

The golfer recorded an **amazing** distance.

measurement

n. the act or process of finding something's size, quantity, or degree

synonym : calculation, dimensions, size

(1) chest **measurement**, (2) a precise **measurement**

The **measurement** error of this industrial machine is less than one micrometer.

composite

adj. made up of different parts, elements, or substances;
(noun) something made from two or more different substances

synonym : compound, combined, mixed

(1) **composite** materials, (2) a **composite** of different photographs

The **composite** index tracks the performance of multiple stocks in the same sector.

develop

v. to grow or expand; to improve or refine through a process of progress and refinement, often to achieve greater sophistication or complexity; to elaborate or add detail to something that is in the process of being created

synonym: evolve, progress, advance

(1) **develop** a strategy, (2) **develop** a skill

We must **develop** a new system to streamline our workflow and increase efficiency.

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**.

spacecraft

n. a vehicle designed to travel through space, typically carrying astronauts or scientific instruments

synonym: spaceship, satellite, probe

(1) **spacecraft** launch, (2) alien **spacecraft**

The human-crewed **spacecraft** successfully landed on the moon, fulfilling its mission.

accomplishment

n. the successful completion of a task or goal; an ability that has been acquired by training

synonym: success, achievement, complete

(1) proud of his **accomplishments**, (2) the **accomplishment** of a social goal

Graduating from college was a major **accomplishment** for

her.

comparable

adj. able to link the similarities or differences with others; similar or equivalent to someone or something

synonym: equal, commensurate, similar

(1) **comparable** sales, (2) a **comparable** amount of energy
Humans and apes have **comparable** anatomical structures.

topography

n. the arrangement and physical features of a particular area or region, including its natural and artificial elements and their relative positions and elevations; the study or description of this arrangement and these features

synonym: terrain, landscape, geography

(1) **topography** map, (2) detailed **topography**

The **topography** of the region is rugged, with many hills and valleys.

elevation

n. the height of something above sea level or above the ground; the event of something being raised upward

synonym: height, altitude, rise

(1) at an **elevation** of 1000 feet, (2) **elevation** in rank

The **elevation** of the mountain made it difficult to breathe.

differ

v. to be not like someone or something in some way

synonym: vary, diverge, disagree

(1) **differ** from the majority, (2) **differ** according to species

The two products **differed** in their quality and price.

volcano

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

synonym: mount, peak, crater

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

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

solar

adj. of, from, or relating to the sun

(1) the **solar** system, (2) a **solar** eclipse

Solar panels have greatly improved not only in performance but also in durability.

grand

adj. important and large in size, scope, or extent

synonym: impressive, great, ambitious

(1) a **grand** meal, (2) **grand** bargain

This year's **grand** gathering will be held in Canada.

canyon

n. a large deep valley with very steep sides of rock and usually formed by a river

synonym: gorge, valley, ravine

(1) twisty **canyon** road, (2) **canyon** of skyscrapers

The Grand **Canyon** has an awe-inspiring sight.

crater

n. a huge bowl-shaped cavity in the earth or an object in space, usually created by an explosion or the impact of a meteorite

synonym: cavity, hole, pit

(1) **crater** lake, (2) lunar **crater**

An enormous **crater** marks the area where the vast volcanic explosion occurred.

basin

n. a natural depression or valley that is circular or oval on the surface of the earth, especially one that has water in it; a container with a bowl form that is typically used to hold food or liquids

synonym: watershed, bowl

(1) inland **basin**, (2) the **basin** of the Great Salt Lake

Many of the lakes and marshes in the **basin** are mildly salty.

atmosphere

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

synonym: air, ambiance, circumstances

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

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

superimpose

v. to place, layer, or overlay one thing on top of another, typically in such a way that both are still visible; to add or combine something additional into an existing structure, design, or system

synonym: overlay, impose, place over

(1) **superimpose** image, (2) **superimpose** text

The graphic designer will **superimpose** the logo over the image in the brochure.

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.

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.

feat

n. a notable or impressive achievement, especially one that requires great skill or bravery

synonym: achievement, accomplishment, exploit

(1) intellectual **feat**, (2) **feat** accomplishment

It is an incredible **feat** to climb Mount Everest, the highest mountain in the world.

nation

n. a large organized community of people living in a particular country or region and having a particular culture

synonym: country, state, sovereign entity

(1) **nation-state**, (2) a seafaring **nation**

The **nation** of Japan is known for its unique culture and advanced technology.

academy

n. a school for special training; a type of official organization that aims to encourage and develop standards in its particular field

synonym : school, institute, college

(1) an **academy** of music, (2) a member of the **Academy**

Her new documentary earned her an **Academy** Award.

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.

magnet

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

synonym : magnetite, lodestone, attracting substance

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

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

crust

n. a hard outer layer that forms on the surface of a liquid as it cools or on a solid as a result of exposure to air or moisture

synonym : layer, coating, shell

(1) **crust** formation, (2) the earth's **crust**

The bread's **crust** was golden brown and crispy.

magnetism

n. the force that causes attraction or repulsion between magnetic substances; a charismatic or attractive quality that attracts people or causes them to be drawn to someone or something

synonym :

attraction, charisma, allure

(1) the **magnetism** of the moon, (2) animal **magnetism**

The child was drawn to the **magnetism** of the colorful toy display in the store.

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.

polar

adj. relating to, or close to, the North or South Pole; characterized by complete opposites

synonym: opposing, contrary, contrasting

(1) **polar** bears, (2) **polar** regions

Polar animals are graceful and efficient swimmers.

pole

n. one of two antipodal points where the Earth's axis of rotation intersects the Earth's surface; a long, slender, rounded rod, typically of wood or metal, used as a support or to hang something

synonym: rod, staff, shaft

(1) a fishing **pole**, (2) the plus **pole**

The North **Pole** is the northernmost point on Earth.

spirit

n. the part of a person which is the seat of their mind, feelings, and character rather than their physical body; the general atmosphere of a place or situation and the effect that it has on people

synonym: soul, attitude, enthusiasm

(1) **spirit** and the letter of the law, (2) an indomitable **spirit**

Despite their tragic loss, the family is showing great **spirit**.

opportune

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

synonym: suitable, timely, practical

(1) **opportune** occasion, (2) an **opportune** remark

The phone rang at the most **opportune** time.

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.

evolution

n. a gradual process of transformation of living things

synonym: elaboration, expansion, transition

(1) human **evolution**, (2) **evolution** theory

They study the **evolution** of the universe.

origin

n. the first existence or beginning of something

synonym: root, source, ancestor

(1) **origin** of information, (2) racial **origin**

There are various hypotheses concerning the **origin** of life.

glacier

n. a slowly moving mass of ice formed from snow on mountains or near the North Pole or the South Pole

synonym: iceberg, ice floe

(1) **glacier** retreat, (2) **glaciers** move tardily

The **glaciers** of the ice age have shaped Fjord.

publicly

adv. in a manner accessible to or observable by the public; by the government

synonym: candidly, openly, honestly

(1) **publicly** accessible record, (2) **publicly** financed schools

She **publicly** denounced the government's mishandling of the economic crisis.

agency

n. an organization or business that is responsible for specific activities or services, especially when representing other organizations or businesses; the capacity or power to act or exert influence; the ability to make decisions and take action

synonym : organization, bureau, institution

(1) real estate **agency**, (2) intelligence **agency**

The government **agency** regulated the country's food and drug safety standards.

hemisphere

n. half of the terrestrial globe; half of a sphere

(1) northern **hemisphere**, (2) cerebral **hemisphere**

This weather pattern is unique to the southern **hemisphere**.

depression

n. a mental condition in which a person feels very unhappy and without hope for the future; a severe recession in an economy or market

synonym : recession, slump, despair

(1) the Great **Depression**, (2) the root problem of her **depression**

Depression symptoms might include a decrease in appetite and weight loss.

ancient

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

synonym : archaic, age-old, obsolete

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

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

satellite

n. an electronic device that is sent up into space and moves around the Earth or another planet, used for gathering information or communicating by radio, television, etc.

synonym : orbiter, asteroid, moon

(1) a GPS **satellite**, (2) a meteorological **satellite**

Launching an artificial **satellite** contributed to the technological development of our country.

odyssey

n. a long wandering and eventful journey; a Greek epic poem attributed to Homer, describing the journey of Odysseus after the fall of Troy

(1) go on a serious **odyssey**, (2) cross-country **odyssey**
He continued the extraordinary **odyssey** with his brother.

bluish

adj. having a color that is a shade of blue

synonym: blue, azure, navy

(1) **bluish** cloth, (2) **bluish** color

The flowers had a **bluish** tint, indicating they needed to be riper.

interior

n. the inside or inner part of something; the space within the walls of a building

synonym: inner, inside, internal

(1) **interior** decoration, (2) plenty of **interior** space

The painter focused on the moody **interiors** of abandoned buildings in his work.

puzzling

adj. confusing or difficult to understand; mysterious

synonym: baffling, confusing, enigmatic

(1) **puzzling** behavior, (2) **puzzling** questions

The detective found the clues **puzzling** and couldn't solve the case immediately.

release

v. to set free or allow to escape from confinement

synonym: free, let go, discharge

(1) **release** a prisoner, (2) **release** CO2 into the air

The animal rights group worked to **release** the dolphins back into the wild.

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.

methane

n. a chemical compound with the chemical formula CH₄ with no smell or color, often used as a fuel

(1) atmospheric **methane**, (2) reduce **methane** emissions

The ignition of **methane** gas in the plant killed five employees.

distinct

adj. noticeable from something else of a similar type

synonym: different, special, characteristic

(1) **distinct** difference, (2) **distinct** from each other

It is essential to keep these two issues **distinct**.

microscopic

adj. tiny; exceedingly precise and detail-oriented; of or used in microscopy

synonym: infinitesimal, tiny, atomic

(1) **microscopic** inquiry, (2) **microscopic** analysis

Inspectors noticed **microscopic** cracks in the submarine's hull.

gene

n. the fundamental unit of heredity and the sequence of nucleotides in DNA that codes for the creation of RNA or protein.

synonym: factor, cistron

(1) **gene** expression, (2) **gene** cloning

A defective **gene** is responsible for the disease.

plume

n. a large feather or group of feathers worn as an ornament or a symbol of achievement or distinction, especially on a hat

synonym: feather, honor, token

(1) **plume** of smoke, (2) **plume** of feathers

The bird had a beautiful **plume** on its head.

terrain

n. the physical features of a piece of land, including hills, valleys, rivers, and forests

synonym: land, geography, topography

(1) **terrain** map, (2) permafrost **terrain**

The mountainous **terrain** was rough and rocky.

geology

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

synonym : earth science

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

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

gap

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

synonym : opening, lacuna, spread

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

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

tectonics

n. the study of the processes that shape the Earth's surface, including the movements of tectonic plates, earthquakes, and volcanic activity

synonym : geology, plate tectonics, earth movements

(1) plate **tectonics**, (2) collision **tectonics**

Global **tectonics** plays a critical role in the formation of mountain ranges and the movement of Earth's crustal plates.

recycle

v. to sort and collect things to process them and produce valuable materials that can be used again

synonym : reclaim, reuse, reprocess

(1) **recycle** the cardboard boxes, (2) **recycle** milk packaging into new paper

We largely **recycle** the circuit board of cell phones because they contain a lot of valuable metals.

pathfinder

n. a person or thing that leads the way or explores new territory; someone who finds or discovers a new route or method; a person or vehicle used to navigate or explore unfamiliar or dangerous areas

synonym : trailblazer, pioneer, explorer

(1) adventurous **pathfinder**, (2) a **pathfinder** in the tech industry

The company's new **pathfinder** project explores new ways to use renewable energy.

phoenix

n. a mythical bird that is said to live for several hundred years before dying in flames and then rising again from its ashes; a symbol of rebirth, regeneration, or immortality

synonym: firebird, mythical bird, rebirth symbol

(1) **phoenix** rising, (2) **phoenix** feather

A local artist created the **phoenix** sculpture in the park.

rover

n. a vehicle designed to travel over rough terrain, especially on the surface of a planet or moon

synonym: vehicle, robot, explorer

(1) **rover** mission, (2) lunar **rover**

The **rover** on Mars is gathering data on the planet's surface and sending it back to Earth.

asteroid

n. (also "planetoid") a small rocky body orbiting the sun, typically in the region between Mars and Jupiter

synonym: minor planet, planetoid, rocky planetesimal

(1) **asteroid** mining, (2) **asteroid** explorer

Scientists are studying the composition and origins of the **asteroid** belt to understand the early solar system better.

meteorite

n. a solid object originating in outer space that reaches the Earth's surface without completely vaporizing in the atmosphere; a rock that has fallen from space

synonym: meteor, shooting star, asteroid

(1) **meteorite** impact, (2) **meteorite** shower

The **meteorite** fragments were collected and sent to a laboratory for analysis.

volcanic

adj. relating to or produced by or consisting of volcano

(1) effects of **volcanic** eruptions, (2) increase in **volcanic** activity

This study indicates **volcanic** activity affects global warming.

rough

adj. not quite exact or correct; having or caused by an irregular surface

synonym : inelegant, coarse, barbarian

(1) **rough** and tough, (2) **rough** estimation

The vehicle bounced along the **rough** mountain road.

unravel

v. undo twisted, knitted, or woven threads by separating it

synonym : separate, unknot, ravel

(1) **unravel** a knit, (2) **unravel** a plot

Detectives are still attempting to **unravel** the mystery of his death.

invite

v. to ask someone to come or join; to offer an opportunity or possibility for something to happen or take place

synonym : ask, request, summon

(1) **invite** guests, (2) **invite** criticism

We want to **invite** you to our annual charity event.

decide

v. to make up someone's mind about something; to come to a conclusion or judgment after considering options

synonym : choose, determine, settle

(1) **decide** a question, (2) **decide** on a course of action

She couldn't **decide** whether to order the pizza or the pasta for dinner.

robotic

adj. of or relating to mechanical robots; (robotics) the interdisciplinary branch of computer science and engineering with the practical use of robots

synonym : automated, mechanical, laborsaving

(1) **robotic** arm, (2) **robotic** guide operation

The surgeon removed the tumor using **robotic** video assistance.

rocket

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

or as a weapon

synonym : projectile, missile

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

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

aerial

n. a type of acrobatics or gymnastics performed while suspended from hanging fabric or rings; a pass or shot in sports (particularly in soccer or volleyball) that is made while the player is in the air

synonym : antenna, skywire, transmitter

(1) **aerial** antenna, (2) **aerial** photography

The **aerial** view from the airplane showed the beautiful landscape below.

environment

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

synonym : atmosphere, surroundings, climate

(1) **environment** affairs, (2) chaotic **environment**

Every human is responsible for taking care of the Earth's **environment**.

surveyor

n. an engineer who measures and records the details of areas of land

synonym : assessor, cartographer

(1) land **surveyor**, (2) geographical **surveyor**

The **surveyors** asked various related questions about the land.

aeronautics

n. the science or art of designing, building, and flying aircraft

synonym : aviation, aerospace, flying

(1) **aeronautics** industry, (2) **aeronautics** research

He studied **aeronautics** in college and worked as an aerospace engineer.

valley

n. a long depression on the surface of the land, which typically contains a river

synonym: canyon, gorge, dale

(1) **valley** bottom, (2) basin-shaped **valley**

The **valley** had received a mild snowfall the previous week.

subsurface

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

synonym: beneath the surface, underground, subterranean

(1) **subsurface** mining, (2) **subsurface** oil reserves

The **subsurface** layers of the ocean are still largely unexplored.

importance

n. the quality of being important and worthy of note

synonym: significance, primacy, matter

(1) a man of **importance**, (2) high **importance**

I stopped by the branch though I have no business of **importance**.

transmit

v. to send or forward an electronic signal; to pass something from one person or thing to another

synonym: convey, share, dispatch

(1) **transmit** the disease, (2) **transmit** information

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

flee

v. to leave by running away, especially out of fear or danger

synonym: exit, escape, run away

(1) **flee** their homes, (2) **flee** abroad

It is a basic instinct to **flee** from a dangerous situation.

inspire

v. to make somebody fill with the desire, confidence, or enthusiasm, especially to do something creative

synonym: boost, encourage, enlighten

(1) **inspire** a feeling of curiosity, (2) **inspire** him to write a

novel

The unique style of this martial arts **inspired** many action film producers.

doll

n. a child's toy that typically represents a human figure, especially a young girl; an attractive woman; a woman who is subservient or passive

synonym : puppet, dolly, toy

(1) plastic **doll**, (2) rag **doll**

The antique **doll** was worth thousands of dollars.

generation

n. all the people born and living at about the same time, regarded collectively; the production of heat or electricity

synonym : cohort, age group, era

(1) **generation** gap, (2) the **generation** of electricity

The younger **generation** has different values and beliefs than the older one.

technological

adj. based on scientific and industrial progress

synonym : specialized, technical

(1) **technological** advancement, (2) **technological** policy

Technological advances have disrupted many industries.

engineer

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

synonym : architect, creator, builder

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

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

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**.

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**.

security

n. the state of being free from danger, risk, or harm; measures taken to protect against threats or attacks; a financial asset, such as a stock or bond that derives value exclusively from the ownership interest or claim to a particular underlying asset or obligation

synonym: safety, protection, stock

(1) national **security**, (2) **security** analyst

The building's **security** system includes cameras, alarms, and security guards.

economy

n. the system by which a country or region produces, manages, and distributes goods and services, including the money and finances involved in these activities; (of an airline) the lowest-priced, most basic option for seating in commercial travel

synonym: finance, trade, business

(1) **economy** of scale, (2) **economy** class

The **economy** of the country is struggling due to the recent political instability.

vitality

n. the state of being strong and active; energy

synonym: energy, life, vigor

(1) **vitality** of youth, (2) the **vitality** of the company

The new gym membership has improved his **vitality** and overall health.

reprogram

v. to modify or recreate a program

synonym: recreate, modify, revamp

(1) **reprogram** a device, (2) **reprogram** a database

He **reprogrammed** the computer's operating system to

remove the safeguard.

instrument

n. an object used to make musical sounds, such as a piano, guitar, or drum; a tool or device used for a specific activity, particularly in specialist or scientific work

synonym: apparatus, tool, device

(1) musical **instruments**, (2) surgical **instruments**

This electronic **instrument** is required to undergo periodic inspections to ensure precision.

aboard

adv. on or onto a ship, aircraft, or other vehicles; present or participating in a particular activity or endeavor

synonym: on board, on, in

(1) **aboard** the ship, (2) remain **aboard**

The captain announced that all passengers should be **aboard** the ferry before it departed for the island.

pinpoint

v. to locate or identify the exact position in space or time of something

synonym: name, direct, identify

(1) **pinpoint** the problem, (2) **pinpoint** signs of manipulation

This radar quickly **pinpoints** the position of the enemy.

emanate

v. to emit, send out something; to express a quality or feeling

synonym: radiate, exude, give off

(1) **emanate** light, (2) **emanate** happiness

The fragrance of flowers **emanated** from the garden.

gradient

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

synonym: slope, incline, grade

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

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

transport

n. a system for moving people or products from one location to another using automobiles, roads, and so on
synonym : shipment, transit, conveyance

(1) **transport** facilities, (2) access to public **transport**

Enhanced rail **transportation** is crucial for our business.

diameter

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

synonym : diam, width

(1) **diameter** of an oval, (2) a particle **diameter**

Draw a circle five centimeters in **diameter**.

wingspan

n. the distance between the tips of a bird's wings when fully extended and in flight; often used to describe the size or scope of something, particularly about physical objects or structures

synonym : reach, spread, extent

(1) bird **wingspan**, (2) airplane **wingspan**

The bald eagle has an impressive **wingspan** of over 7 feet.

sequence

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

synonym : arrangement, succession, series

(1) the **sequence** of the seasons, (2) the DNA **sequence**

We do move forward with those tasks in **sequence** next week.

engine

n. a machine that converts thermal energy to mechanical work; something that has an important role used to achieve a purpose

synonym : motor, locomotive, driver

(1) a steam **engine**, (2) an air-cooled **engine**

The policies he announces can be the **engine** of economic growth in the country.

liftoff

n. the moment when a spacecraft or other vehicle takes off and lifts off the ground; the act or process of launching

or beginning an endeavor

synonym: takeoff, launching, ascent

(1) **liftoff** time, (2) **liftoff** procedure

The spacecraft had a successful **liftoff**, launching into the atmosphere.

launch

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

synonym: start, initiate, begin

(1) **launch** a spaceship into orbit, (2) **launch** a big attack

The company is set to **launch** its new product line next month.

friction

n. the force that opposes motion between two objects in contact, especially by producing heat and wear, and is proportional to the normal force between the objects

synonym: rub, scrape, resistance

(1) **friction** force, (2) surface **friction**

The **friction** between the two countries was causing tension.

parachute

n. a device used to slow the motion of people or objects through an atmosphere consisting of a large piece of thin cloth that is attached to them and opens out in the air

(1) **parachute** troops, (2) golden **parachute**

This training includes emergency escape drills with **parachutes**.

thermal

adj. relating to heat or temperature; designed for or capable of producing or maintaining heat

synonym: heat-related, warm, hot

(1) **thermal** insulation, (2) **thermal** energy

The **thermal** imaging camera was used to detect heat signatures in the dark.

exposed

adj. having no protection or shield from something, such as bad weather, attack, or criticism

synonym : endangered, revealed, disclosed

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

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

unfold

v. to open up or spread out something that is folded or rolled up; to reveal or disclose something that was previously hidden or unknown

synonym : open, spread out, expose

(1) **unfold** the story, (2) **unfold** the stroller

The mystery **unfolded** as the detectives gathered more clues.

rewrite

v. to write something such as a book or speech again in a different way, usually to improve it or add new information

synonym : revise, edit, rework

(1) **rewrite** a composition, (2) **rewrite** a world record

I need to **rewrite** most of the essay with feedback from my teacher.

resolution

n. a firm decision or determination to do or not do something; the action of solving a problem, dispute, or conflict; the quality of being resolved or determined; the clarity and sharpness of an image or display

synonym : determination, decision, settlement

(1) **resolution** of a conflict, (2) display **resolution**

He made a New Year's **resolution** to exercise more and eat healthier.

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.

density

n. the quality of compactness of a substance

synonym: tightness, viscosity

(1) population **density**, (2) higher pixel **density**

Do you know the **density** of the population in Hong Kong?

cross-country

adj. relating to or taking place across the open country rather than on roads or tracks; involving travel by foot, horse, or vehicle over rough terrain or through wilderness areas; (noun) a long-distance race or journey that takes place over rough or varied terrain, such as hills, forests, or fields

synonym: rural, remote, backcountry

(1) **cross-country** road trip, (2) **cross-country** skiing

We had to take a **cross-country** flight because no direct flights were available.

altitude

n. the height of an object or point in relation to sea level or ground level

synonym: height, elevation, tallness

(1) the meridian **altitude**, (2) low **altitude**

The plane flew at a high **altitude** to avoid turbulence.

helium

n. a colorless, odorless, tasteless, non-toxic, inert, monatomic gas, the first in the noble gas series in the periodic table

synonym: He, light gas, noble gas

(1) **helium** atom, (2) **helium** gas

The **helium-filled** balloons floated into the sky.

balloon

n. a small bag made of thin rubber or other light material that can be inflated with air or gas, used as a toy or as a decoration; (verb) to become inflated

synonym: aerostat, blimp, (verb) billow out

(1) **balloon** ride, (2) **balloon** into a severe political problem

The satellite **balloon** slowly ascended into the sky.

command

n. authority, control, or mastery over something, often referring to military or leadership contexts; a directive, order, or instruction; expertise or confidence in a specific area; (verb) to give an authoritative order or instruction, or to be in charge or control of something

synonym: control, authority, leadership

(1) **command** and control, (2) **command** a battery

The general gave a **command** to his troops to prepare for battle.

deploy

v. to move troops or weapons into a position or military action; to bring into something in an effective way

synonym: set up, expand, launch

(1) **deploy** troops for battle, (2) **deploy** safety measures

This country **deployed** its weapons in the east region.

technique

n. a particular way or art of doing something that needs skill

synonym: approach, procedure, strategy

(1) a **technique** in martial arts, (2) the **technique** applied to construction

Jockey's superior **technique** brought him victory.

storage

n. the act or process of putting in and keeping something in a particular place for use in the future; an electronic memory device that can store information

synonym: storehouse, depository, warehousing

(1) a **storage** battery, (2) **storage** at low temperature

We store customer data in cloud **storage**.

donate

v. to give money, food, clothes, etc. to help a person or organization

synonym: bestow, contribute, grant

(1) **donate** to charity, (2) **donate** blood to the Red Cross

Our company **donates** to the school endowment fund every

year.

honorarium

n. a payment or fee given to someone, typically for professional services, that is not officially required or a standard salary, often given as a token of appreciation or to show respect

synonym : payment, fee, compensation

(1) **honorarium** fee, (2) academic **honorarium**

The guest speaker was given an **honorarium** for delivering an insightful lecture.

jet

n. a type of aircraft that is powered by one or more jet engines and can fly at high speeds, typically over long distances

synonym : plane, aircraft, flier

(1) private **jet**, (2) commercial **jet**

The **jet** flew over the ocean at high speed, reaching its destination in hours.

propulsion

n. the act or process of propelling or driving something forward, often using a motor, engine, or other mechanical means

synonym : propelling, driving, actuation

(1) **propulsion** technology, (2) nuclear **propulsion**

The spacecraft's **propulsion** system helped it travel through space.

laboratory

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

synonym : lab, workshop, testing room

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

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

corporation

n. a large company or group of companies that are controlled together by law as a single unit

synonym : business, company, enterprise

(1) a public **corporation**, (2) **corporation** assets
Four companies were amalgamated into a single **corporation**.

conclude

v. to come to an end or close; to reach a judgment or opinion by reasoning

synonym: complete, finish, decide

(1) **conclude** a meeting, (2) **conclude** that he is healthy
We **concluded** a cease-fire.

verge

n. the point at which something is about to happen or where something begins; the edge or margin of something, particularly a physical boundary or border

synonym: brink, edge, margin

(1) **verge** of bankruptcy, (2) on the **verge** of tears
He stood on the **verge** of a major discovery.

exciting

adj. causing a lot of interest or excitement

synonym: exhilarating, stimulating, thrilling

(1) **exciting** football player, (2) **exciting** news
The findings of the experiment were both **exciting** and unexpected.

Session 2: Spelling

- | | |
|---------------------------------------|---|
| 1. the root problem of her dep_____on | <i>n.</i> a mental condition in which a person feels very unhappy and without hope for the future; a severe recession in an economy or market |
| 2. ro__r mission | <i>n.</i> a vehicle designed to travel over rough terrain, especially on the surface of a planet or moon |
| 3. en_____er shortage | <i>n.</i> a person whose job is designing, building, or maintaining something such as machines, structures, or software |
| 4. mat_____cs competition | <i>n.</i> the science dealing with the logic of quantities, shapes, spaces, and arrangement |
| 5. colorless li____d | <i>n.</i> a substance, such as water or oil that flows freely and is neither a solid nor a gas |
| 6. me_____te impact | <i>n.</i> a solid object originating in outer space that reaches the Earth's surface without completely vaporizing in the atmosphere; a rock that has fallen from space |
| 7. remain ab____d | <i>adv.</i> on or onto a ship, aircraft, or other vehicles; present or participating in a particular activity or endeavor |
| 8. economic gr_____nt | <i>n.</i> the degree or rate of incline or decline along a physical or abstract line; a gradual progression |

ANSWERS: 1. depression, 2. rover, 3. engineer, 4. mathematics, 5. liquid, 6. meteorite, 7. aboard, 8. gradient

9. he___m atom *n.* a colorless, odorless, tasteless, non-toxic, inert, monatomic gas, the first in the noble gas series in the periodic table
10. rag d___l *n.* a child's toy that typically represents a human figure, especially a young girl; an attractive woman; a woman who is subservient or passive
11. gen_____on gap *n.* all the people born and living at about the same time, regarded collectively; the production of heat or electricity
12. a convivial atm_____re *n.* the mass of air that surrounds the Earth; the pervading tone or mood of a place, situation, or creative work
13. ae___l antenna *n.* a type of acrobatics or gymnastics performed while suspended from hanging fabric or rings; a pass or shot in sports (particularly in soccer or volleyball) that is made while the player is in the air
14. ca___n of skyscrapers *n.* a large deep valley with very steep sides of rock and usually formed by a river
15. increase in vo_____ic activity *adj.* relating to or produced by or consisting of volcano
16. population de_____y *n.* the quality of compactness of a substance
17. northern hem_____re *n.* half of the terrestrial globe; half of a sphere

ANSWERS: 9. helium, 10. doll, 11. generation, 12. atmosphere, 13. aerial, 14. canyon, 15. volcanic, 16. density, 17. hemisphere

18. as____id explorer *n.* (also "planetoid") a small rocky body orbiting the sun, typically in the region between Mars and Jupiter
19. a st_____e battery *n.* the act or process of putting in and keeping something in a particular place for use in the future; an electronic memory device that can store information
20. cor_____on assets *n.* a large company or group of companies that are controlled together by law as a single unit
21. env_____nt affairs *n.* the natural world such as air, water, and land in which humans, animals, and plants live
22. real estate ag____y *n.* an organization or business that is responsible for specific activities or services, especially when representing other organizations or businesses; the capacity or power to act or exert influence; the ability to make decisions and take action
23. spa_____ft launch *n.* a vehicle designed to travel through space, typically carrying astronauts or scientific instruments
24. di_____ct difference *adj.* noticeable from something else of a similar type
25. ve__e of bankruptcy *n.* the point at which something is about to happen or where something begins; the edge or margin of something, particularly a physical boundary or border

ANSWERS: 18. asteroid, 19. storage, 20. corporation, 21. environment, 22. agency, 23. spacecraft, 24. distinct, 25. verge

26. ae___l photography *n.* a type of acrobatics or gymnastics performed while suspended from hanging fabric or rings; a pass or shot in sports (particularly in soccer or volleyball) that is made while the player is in the air
27. higher pixel de_____y *n.* the quality of compactness of a substance
28. twisty ca___n road *n.* a large deep valley with very steep sides of rock and usually formed by a river
29. a good grounding in mat_____cs *n.* the science dealing with the logic of quantities, shapes, spaces, and arrangement
30. m_r a proper relationship *v.* to damage or spoil the appearance or surface of something
31. proud of his acc_____ents *n.* the successful completion of a task or goal; an ability that has been acquired by training
32. collision te_____cs *n.* the study of the processes that shape the Earth's surface, including the movements of tectonic plates, earthquakes, and volcanic activity
33. distance g_p *n.* a conspicuous disparity or difference separates something such as a figure, people, their opinions, situation, etc.
34. la___h a big attack *v.* to send or propel something into the air or space using a device such as a rocket, missile, or spacecraft; to make something available or on sale for the first time

ANSWERS: 26. aerial, 27. density, 28. canyon, 29. mathematics, 30. mar, 31. accomplishment, 32. tectonics, 33. gap, 34. launch

35. pho_____ph memories *n.* a picture or image that is produced by a camera; a visual representation or record of a person, object, or scene that has been captured electronically or on film
36. cro_____try skiing *adj.* relating to or taking place across the open country rather than on roads or tracks; involving travel by foot, horse, or vehicle over rough terrain or through wilderness areas; (noun) a long-distance race or journey that takes place over rough or varied terrain, such as hills, forests, or fields
37. pho_____ph album *n.* a picture or image that is produced by a camera; a visual representation or record of a person, object, or scene that has been captured electronically or on film
38. animal ma_____sm *n.* the force that causes attraction or repulsion between magnetic substances; a charismatic or attractive quality that attracts people or causes them to be drawn to someone or something
39. bureau of ge_____y *n.* a science that deals with the history of the earth as recorded in rocks
40. geographical su_____or *n.* an engineer who measures and records the details of areas of land
41. bl___h cloth *adj.* having a color that is a shade of blue
42. a meteorological sa_____te *n.* an electronic device that is sent up into space and moves around the Earth or another planet, used for gathering information or communicating by radio, television, etc.

ANSWERS: 35. photograph, 36. cross-country, 37. photograph, 38. magnetism, 39. geology, 40. surveyor, 41. bluish, 42. satellite

43. ph____x rising *n.* a mythical bird that is said to live for several hundred years before dying in flames and then rising again from its ashes; a symbol of rebirth, regeneration, or immortality
44. ro__h and tough *adj.* not quite exact or correct; having or caused by an irregular surface
45. fo_____te situation *adj.* having good luck or lucky
46. m_r the reputation *v.* to damage or spoil the appearance or surface of something
47. ec_____y of scale *n.* the system by which a country or region produces manages, and distributes goods and services, including the money and finances involved in these activities; (of an airline) the lowest-priced, most basic option for seating in commercial travel
48. the vi_____ty of the company *n.* the state of being strong and active; energy
49. la___h a spaceship into orbit *v.* to send or propel something into the air or space using a device such as a rocket, missile, or spacecraft; to make something available or on sale for the first time
50. na___n-state *n.* a large organized community of people living in a particular country or region and having a particular culture
51. co_____de a meeting *v.* to come to an end or close; to reach a judgment or opinion by reasoning

ANSWERS: 43. phoenix, 44. rough, 45. fortunate, 46. mar, 47. economy, 48. vitality, 49. launch, 50. nation, 51. conclude

52. di___r according to species *v.* to be not like someone or something in some way
53. an op_____ne remark *adj.* suitable or happening at a time that is suitable or convenient for a particular purpose
54. sub_____ce mining *adj.* situated or located beneath the surface of something; existing or occurring within the deeper layers of a material or object, often referring to areas below the Earth's surface
55. se_____ty analyst *n.* the state of being free from danger, risk, or harm; measures taken to protect against threats or attacks; a financial asset, such as a stock or bond that derives value exclusively from the ownership interest or claim to a particular underlying asset or obligation
56. at an el_____on of 1000 feet *n.* the height of something above sea level or above the ground; the event of something being raised upward
57. the g_p between ideal and reality *n.* a conspicuous disparity or difference separates something such as a figure, people, their opinions, situation, etc.
58. display res_____on *n.* a firm decision or determination to do or not do something; the action of solving a problem, dispute, or conflict; the quality of being resolved or determined; the clarity and sharpness of an image or display
59. intellectual f__t *n.* a notable or impressive achievement, especially one that requires great skill or bravery

ANSWERS: 52. differ, 53. opportune, 54. subsurface, 55. security, 56. elevation, 57. gap, 58. resolution, 59. feat

60. lunar cr___r *n.* a huge bowl-shaped cavity in the earth or an object in space, usually created by an explosion or the impact of a meteorite
61. airplane wi_____an *n.* the distance between the tips of a bird's wings when fully extended and in flight; often used to describe the size or scope of something, particularly about physical objects or structures
62. re_____e a prisoner *v.* to set free or allow to escape from confinement
63. carbon dioxide in the atm_____re *n.* the mass of air that surrounds the Earth; the pervading tone or mood of a place, situation, or creative work
64. as_____id mining *n.* (also "planetoid") a small rocky body orbiting the sun, typically in the region between Mars and Jupiter
65. 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
66. do___e blood to the Red Cross *v.* to give money, food, clothes, etc. to help a person or organization
67. a com_____le amount of energy *adj.* able to link the similarities or differences with others; similar or equivalent to someone or something
68. less fo_____te person *adj.* having good luck or lucky

ANSWERS: 60. crater, 61. wingspan, 62. release, 63. atmosphere, 64. asteroid, 65. mystery, 66. donate, 67. comparable, 68. fortunate

69. g__e expression *n.* the fundamental unit of heredity and the sequence of nucleotides in DNA that codes for the creation of RNA or protein.
70. ex____d to radiation *adj.* having no protection or shield from something, such as bad weather, attack, or criticism
71. ob___n a license *v.* to get something, especially by making a great effort
72. co____d a battery *n.* authority, control, or mastery over something, often referring to military or leadership contexts; a directive, order, or instruction; expertise or confidence in a specific area; (verb) to give an authoritative order or instruction, or to be in charge or control of something
73. his majestic pr____ce *n.* the fact or state that someone or something exists, occurs, or is present
74. a steam en___e *n.* a machine that converts thermal energy to mechanical work; something that has an important role used to achieve a purpose
75. permanent ma____t *n.* an object or substance that can attract certain materials, such as iron or steel
76. atmospheric me____e *n.* a chemical compound with the chemical formula CH₄ with no smell or color, often used as a fuel
77. 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: 69. gene, 70. exposed, 71. obtain, 72. command, 73. presence, 74. engine, 75. magnet, 76. methane, 77. orbit

78. ro____c guide operation *adj.* of or relating to mechanical robots; (robotics) the interdisciplinary branch of computer science and engineering with the practical use of robots
79. cerebral hem_____re *n.* half of the terrestrial globe; half of a sphere
80. scientific jo_____l *n.* a newspaper or magazine specialized in a specific topic or profession
81. pro_____on technology *n.* the act or process of propelling or driving something forward, often using a motor, engine, or other mechanical means
82. de_____p a skill *v.* to grow or expand; to improve or refine through a process of progress and refinement, often to achieve greater sophistication or complexity; to elaborate or add detail to something that is in the process of being created
83. li_____f procedure *n.* the moment when a spacecraft or other vehicle takes off and lifts off the ground; the act or process of launching or beginning an endeavor
84. hazardous li____d *n.* a substance, such as water or oil that flows freely and is neither a solid nor a gas
85. li_____f time *n.* the moment when a spacecraft or other vehicle takes off and lifts off the ground; the act or process of launching or beginning an endeavor
86. int_____ng character *adj.* arousing curiosity or interest, often due to a mysterious or complex quality; fascinating or captivating

ANSWERS: 78. robotic, 79. hemisphere, 80. journal, 81. propulsion, 82. develop, 83. liftoff, 84. liquid, 85. liftoff, 86. intriguing

87. bird wi____an *n.* the distance between the tips of a bird's wings when fully extended and in flight; often used to describe the size or scope of something, particularly about physical objects or structures
88. a GPS sa_____te *n.* an electronic device that is sent up into space and moves around the Earth or another planet, used for gathering information or communicating by radio, television, etc.
89. the Great Dep_____on *n.* a mental condition in which a person feels very unhappy and without hope for the future; a severe recession in an economy or market
90. ab____d the ship *adv.* on or onto a ship, aircraft, or other vehicles; present or participating in a particular activity or endeavor
91. un_____l a plot *v.* undo twisted, knitted, or woven threads by separating it
92. local ge_____y *n.* a science that deals with the history of the earth as recorded in rocks
93. detailed top_____hy *n.* the arrangement and physical features of a particular area or region, including its natural and artificial elements and their relative positions and elevations; the study or description of this arrangement and these features
94. sup_____se image *v.* to place, layer, or overlay one thing on top of another, typically in such a way that both are still visible; to add or combine something additional into an existing structure, design, or system

ANSWERS: 87. wingspan, 88. satellite, 89. depression, 90. aboard, 91. unravel, 92. geology, 93. topography, 94. superimpose

95. the ma_____sm of the moon *n.* the force that causes attraction or repulsion between magnetic substances; a charismatic or attractive quality that attracts people or causes them to be drawn to someone or something
96. re_____am a device *v.* to modify or recreate a program
97. severe cr___c *n.* someone who expresses opinions about the quality of books, music, etc.
98. lab_____ry accident *n.* a workplace for doing scientific research or teaching science; a lab
99. gr__d bargain *adj.* important and large in size, scope, or extent
100. ec_____y class *n.* the system by which a country or region produces manages, and distributes goods and services, including the money and finances involved in these activities; (of an airline) the lowest-priced, most basic option for seating in commercial travel
101. ro___t fuel *n.* a large tube-shaped object that moves very fast by a stream of gases let out behind it, used for space travel or as a weapon
102. on a qu__t for happiness *n.* a long or challenging search for something
103. am_____g advances *adj.* extremely surprising, especially in a way that you like or admire
104. pl__e of smoke *n.* a large feather or group of feathers worn as an ornament or a symbol of achievement or distinction, especially on a hat

ANSWERS: 95. magnetism, 96. reprogram, 97. critic, 98. laboratory, 99. grand, 100. economy, 101. rocket, 102. quest, 103. amazing, 104. plume

105. a member of the Ac____y *n.* a school for special training; a type of official organization that aims to encourage and develop standards in its particular field
106. fr____on force *n.* the force that opposes motion between two objects in contact, especially by producing heat and wear, and is proportional to the normal force between the objects
107. re____e a world record *v.* to write something such as a book or speech again in a different way, usually to improve it or add new information
108. ma____t attraction *n.* an object or substance that can attract certain materials, such as iron or steel
109. int____ng concept *adj.* arousing curiosity or interest, often due to a mysterious or complex quality; fascinating or captivating
110. f__t accomplishment *n.* a notable or impressive achievement, especially one that requires great skill or bravery
111. di____ct from each other *adj.* noticeable from something else of a similar type
112. 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
113. re____am a database *v.* to modify or recreate a program

ANSWERS: 105. academy, 106. friction, 107. rewrite, 108. magnet, 109. intriguing, 110. feat, 111. distinct, 112. mystery, 113. reprogram

114. or___n of information *n.* the first existence or beginning of something
115. co_____de that he is healthy *v.* to come to an end or close; to reach a judgment or opinion by reasoning
116. pre-Christian an_____t *adj.* relating to the long ago, particularly the historical period preceding the fall of the Western Roman Empire; very old
117. pl___t like the Earth *n.* any of the nine large celestial bodies that circle in the solar system; any celestial body that revolves around a star
118. de___y troops for battle *v.* to move troops or weapons into a position or military action; to bring into something in an effective way
119. vi_____ty of youth *n.* the state of being strong and active; energy
120. plenty of in_____or space *n.* the inside or inner part of something; the space within the walls of a building
121. ro__h estimation *adj.* not quite exact or correct; having or caused by an irregular surface
122. a pat_____er in the tech industry *n.* a person or thing that leads the way or explores new territory; someone who finds or discovers a new route or method; a person or vehicle used to navigate or explore unfamiliar or dangerous areas
123. sub_____ce oil reserves *adj.* situated or located beneath the surface of something; existing or occurring within the deeper layers of a material or object, often referring to areas below the Earth's surface

ANSWERS: 114. origin, 115. conclude, 116. ancient, 117. planet, 118. deploy, 119. vitality, 120. interior, 121. rough, 122. pathfinder, 123. subsurface

124. ba____n into a severe political problem *n.* a small bag made of thin rubber or other light material that can be inflated with air or gas, used as a toy or as a decoration; (verb) to become inflated
125. an indomitable sp____t *n.* the part of a person which is the seat of their mind, feelings, and character rather than their physical body; the general atmosphere of a place or situation and the effect that it has on people
126. sta_____cs for cancer *n.* the discipline that concerns the collection, organization, analysis, interpretation, and presentation of data
127. he____m gas *n.* a colorless, odorless, tasteless, non-toxic, inert, monatomic gas, the first in the noble gas series in the periodic table
128. the plus p__e *n.* one of two antipodal points where the Earth's axis of rotation intersects the Earth's surface; a long, slender, rounded rod, typically of wood or metal, used as a support or to hang something
129. a gr__d meal *adj.* important and large in size, scope, or extent
130. in____e criticism *v.* to ask someone to come or join; to offer an opportunity or possibility for something to happen or take place
131. the meridian al____de *n.* the height of an object or point in relation to sea level or ground level
132. go on a serious od____y *n.* a long wandering and eventful journey; a Greek epic poem attributed to Homer, describing the journey of Odysseus after the fall of Troy

ANSWERS: 124. balloon, 125. spirit, 126. statistics, 127. helium, 128. pole, 129. grand, 130. invite, 131. altitude, 132. odyssey

133. co_____te materials *adj.* made up of different parts, elements, or substances; (noun) something made from two or more different substances
134. ba_____n ride *n.* a small bag made of thin rubber or other light material that can be inflated with air or gas, used as a toy or as a decoration; (verb) to become inflated
135. em_____e happiness *v.* to emit, send out something; to express a quality or feeling
136. te_____n map *n.* the physical features of a piece of land, including hills, valleys, rivers, and forests
137. the te_____ue applied to construction *n.* a particular way or art of doing something that needs skill
138. pa_____te troops *n.* a device used to slow the motion of people or objects through an atmosphere consisting of a large piece of thin cloth that is attached to them and opens out in the air
139. administrative hea_____er *n.* the central office or location from which a business or organization is managed
140. effects of vo_____ic eruptions *adj.* relating to or produced by or consisting of volcano
141. surface fr_____on *n.* the force that opposes motion between two objects in contact, especially by producing heat and wear, and is proportional to the normal force between the objects
142. an emergency hea_____er *n.* the central office or location from which a business or organization is managed

ANSWERS: 133. composite, 134. balloon, 135. emanate, 136. terrain, 137. technique, 138. parachute, 139. headquarter, 140. volcanic, 141. friction, 142. headquarter

143. el_____on in rank *n.* the height of something above sea level or above the ground; the event of something being raised upward
144. mic_____ic analysis *adj.* tiny; exceedingly precise and detail-oriented; of or used in microscopy
145. pu_____ng behavior *adj.* confusing or difficult to understand; mysterious
146. top_____hy map *n.* the arrangement and physical features of a particular area or region, including its natural and artificial elements and their relative positions and elevations; the study or description of this arrangement and these features
147. the evidence of the pr_____ce *n.* the fact or state that someone or something exists, occurs, or is present
148. private j_t *n.* a type of aircraft that is powered by one or more jet engines and can fly at high speeds, typically over long distances
149. ev_____on theory *n.* a gradual process of transformation of living things
150. f__e abroad *v.* to leave by running away, especially out of fear or danger
151. gain ed_____al help *adj.* relating to the expression of opinions or interpretations in the media
152. do___e to charity *v.* to give money, food, clothes, etc. to help a person or organization
153. bl___h color *adj.* having a color that is a shade of blue
154. po__r regions *adj.* relating to, or close to, the North or South Pole; characterized by complete opposites

ANSWERS: 143. elevation, 144. microscopic, 145. puzzling, 146. topography, 147. presence, 148. jet, 149. evolution, 150. flee, 151. editorial, 152. donate, 153. bluish, 154. polar

155. gr_____nt descent *n.* the degree or rate of incline or decline along a physical or abstract line; a gradual progression
156. a precise mea_____nt *n.* the act or process of finding something's size, quantity, or degree
157. the gen_____on of electricity *n.* all the people born and living at about the same time, regarded collectively; the production of heat or electricity
158. plate te_____cs *n.* the study of the processes that shape the Earth's surface, including the movements of tectonic plates, earthquakes, and volcanic activity
159. a seafaring na____n *n.* a large organized community of people living in a particular country or region and having a particular culture
160. aer_____cs research *n.* the science or art of designing, building, and flying aircraft
161. a co_____te of different photographs *adj.* made up of different parts, elements, or substances; (noun) something made from two or more different substances
162. di_____er of an oval *n.* the length of a straight line passing through the center of a circle and connecting two points on the circumference
163. musical ins_____nts *n.* an object used to make musical sounds, such as a piano, guitar, or drum; a tool or device used for a specific activity, particularly in specialist or scientific work

ANSWERS: 155. gradient, 156. measurement, 157. generation, 158. tectonics, 159. nation, 160. aeronautics, 161. composite, 162. diameter, 163. instrument

164. golden pa_____te *n.* a device used to slow the motion of people or objects through an atmosphere consisting of a large piece of thin cloth that is attached to them and opens out in the air
165. permafrost te_____n *n.* the physical features of a piece of land, including hills, valleys, rivers, and forests
166. ex_____ng news *adj.* causing a lot of interest or excitement
167. compound the ing_____nts *n.* one of the things used to make something, especially one of the foods used to make a particular dish
168. ph_____x feather *n.* a mythical bird that is said to live for several hundred years before dying in flames and then rising again from its ashes; a symbol of rebirth, regeneration, or immortality
169. re_____e the cardboard boxes *v.* to sort and collect things to process them and produce valuable materials that can be used again
170. st_____e at low temperature *n.* the act or process of putting in and keeping something in a particular place for use in the future; an electronic memory device that can store information
171. cr____r lake *n.* a huge bowl-shaped cavity in the earth or an object in space, usually created by an explosion or the impact of a meteorite

ANSWERS: 164. parachute, 165. terrain, 166. exciting, 167. ingredient, 168. phoenix, 169. recycle, 170. storage, 171. crater

172. em_____e light *v.* to emit, send out something; to express a quality or feeling
173. tec_____cal policy *adj.* based on scientific and industrial progress
174. ex_____ve experience *adj.* covering a large area; having a wide range
175. in_____e a feeling of curiosity *v.* to make somebody fill with the desire, confidence, or enthusiasm, especially to do something creative
176. cro_____try road trip *adj.* relating to or taking place across the open country rather than on roads or tracks; involving travel by foot, horse, or vehicle over rough terrain or through wilderness areas; (noun) a long-distance race or journey that takes place over rough or varied terrain, such as hills, forests, or fields
177. the most am_____g feeling *adj.* extremely surprising, especially in a way that you like or admire
178. in_____e him to write a novel *v.* to make somebody fill with the desire, confidence, or enthusiasm, especially to do something creative
179. alien spa_____ft *n.* a vehicle designed to travel through space, typically carrying astronauts or scientific instruments
180. hon_____um fee *n.* a payment or fee given to someone, typically for professional services, that is not officially required or a standard salary, often given as a token of appreciation or to show respect

ANSWERS: 172. emanate, 173. technological, 174. extensive, 175. inspire, 176. cross-country, 177. amazing, 178. inspire, 179. spacecraft, 180. honorarium

181. nuclear pro_____on *n.* the act or process of propelling or driving something forward, often using a motor, engine, or other mechanical means
182. the earth's cr__t *n.* a hard outer layer that forms on the surface of a liquid as it cools or on a solid as a result of exposure to air or moisture
183. fl__y mission *n.* a close approach to a celestial body, especially a planet, by a spacecraft without landing or entering orbit
184. commercial j_t *n.* a type of aircraft that is powered by one or more jet engines and can fly at high speeds, typically over long distances
185. a te_____ue in martial arts *n.* a particular way or art of doing something that needs skill
186. racial or____n *n.* the first existence or beginning of something
187. un_____l a knit *v.* undo twisted, knitted, or woven threads by separating it
188. gl_____rs move tardily *n.* a slowly moving mass of ice formed from snow on mountains or near the North Pole or the South Pole
189. chaotic env_____nt *n.* the natural world such as air, water, and land in which humans, animals, and plants live
190. in___e guests *v.* to ask someone to come or join; to offer an opportunity or possibility for something to happen or take place

ANSWERS: 181. propulsion, 182. crust, 183. flyby, 184. jet, 185. technique, 186. origin, 187. unravel, 188. glacier, 189. environment, 190. invite

191. mic_____ic inquiry *adj.* tiny; exceedingly precise and detail-oriented; of or used in microscopy
192. gl_____r retreat *n.* a slowly moving mass of ice formed from snow on mountains or near the North Pole or the South Pole
193. co_____d and control *n.* authority, control, or mastery over something, often referring to military or leadership contexts; a directive, order, or instruction; expertise or confidence in a specific area; (verb) to give an authoritative order or instruction, or to be in charge or control of something
194. adventurous pat_____er *n.* a person or thing that leads the way or explores new territory; someone who finds or discovers a new route or method; a person or vehicle used to navigate or explore unfamiliar or dangerous areas
195. th_____l energy *adj.* relating to heat or temperature; designed for or capable of producing or maintaining heat
196. 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
197. access to public tr_____rt *n.* a system for moving people or products from one location to another using automobiles, roads, and so on

ANSWERS: 191. microscopic, 192. glacier, 193. command, 194. pathfinder, 195. thermal, 196. orbit, 197. transport

198. res_____on of a conflict *n.* a firm decision or determination to do or not do something; the action of solving a problem, dispute, or conflict; the quality of being resolved or determined; the clarity and sharpness of an image or display
199. secret ing_____nts *n.* one of the things used to make something, especially one of the foods used to make a particular dish
200. the se_____ce of the seasons *n.* a series of related events, actions, numbers, etc., which have a particular order
201. tu____l construction work *n.* an underground or underwater passage, typically for trains or cars
202. de____e a question *v.* to make up someone's mind about something; to come to a conclusion or judgment after considering options
203. official sta_____cs *n.* the discipline that concerns the collection, organization, analysis, interpretation, and presentation of data
204. com_____le sales *adj.* able to link the similarities or differences with others; similar or equivalent to someone or something
205. an ac_____y of music *n.* a school for special training; a type of official organization that aims to encourage and develop standards in its particular field
206. save the pl____t *n.* any of the nine large celestial bodies that circle in the solar system; any celestial body that revolves around a star

ANSWERS: 198. resolution, 199. ingredient, 200. sequence, 201. tunnel, 202. decide, 203. statistics, 204. comparable, 205. academy, 206. planet

207. pu____ly accessible record *adv.* in a manner accessible to or observable by the public; by the government
208. the qu__t for truth *n.* a long or challenging search for something
209. national se____ty *n.* the state of being free from danger, risk, or harm; measures taken to protect against threats or attacks; a financial asset, such as a stock or bond that derives value exclusively from the ownership interest or claim to a particular underlying asset or obligation
210. academic hon____um *n.* a payment or fee given to someone, typically for professional services, that is not officially required or a standard salary, often given as a token of appreciation or to show respect
211. ma____r's compass *n.* a sailor or seaman; someone who works or travels on a boat or ship
212. low al____de *n.* the height of an object or point in relation to sea level or ground level
213. po__r bears *adj.* relating to, or close to, the North or South Pole; characterized by complete opposites
214. un____d the stroller *v.* to open up or spread out something that is folded or rolled up; to reveal or disclose something that was previously hidden or unknown
215. cr__t formation *n.* a hard outer layer that forms on the surface of a liquid as it cools or on a solid as a result of exposure to air or moisture

ANSWERS: 207. publicly, 208. quest, 209. security, 210. honorarium, 211. mariner, 212. altitude, 213. polar, 214. unfold, 215. crust

216. lunar ro__r	<i>n.</i> a vehicle designed to travel over rough terrain, especially on the surface of a planet or moon
217. high imp_____ce	<i>n.</i> the quality of being important and worthy of note
218. the so__r system	<i>adj.</i> of, from, or relating to the sun
219. sup_____se text	<i>v.</i> to place, layer, or overlay one thing on top of another, typically in such a way that both are still visible; to add or combine something additional into an existing structure, design, or system
220. aer_____cs industry	<i>n.</i> the science or art of designing, building, and flying aircraft
221. ob___n a bid	<i>v.</i> to get something, especially by making a great effort
222. the acc_____ent of a social goal	<i>n.</i> the successful completion of a task or goal; an ability that has been acquired by training
223. tec_____cal advancement	<i>adj.</i> based on scientific and industrial progress
224. tu___l disease	<i>n.</i> an underground or underwater passage, typically for trains or cars
225. seasoned ma_____r	<i>n.</i> a sailor or seaman; someone who works or travels on a boat or ship
226. pi_____nt signs of manipulation	<i>v.</i> to locate or identify the exact position in space or time of something
227. me_____te shower	<i>n.</i> a solid object originating in outer space that reaches the Earth's surface without completely vaporizing in the atmosphere; a rock that has fallen from space

ANSWERS: 216. rover, 217. importance, 218. solar, 219. superimpose, 220. aeronautics, 221. obtain, 222. accomplishment, 223. technological, 224. tunnel, 225. mariner, 226. pinpoint, 227. meteorite

228. inland ba__n *n.* a natural depression or valley that is circular or oval on the surface of the earth, especially one that has water in it; a container with a bowl form that is typically used to hold food or liquids
229. an ex____d rock *adj.* having no protection or shield from something, such as bad weather, attack, or criticism
230. ro____c arm *adj.* of or relating to mechanical robots; (robotics) the interdisciplinary branch of computer science and engineering with the practical use of robots
231. pl__e of feathers *n.* a large feather or group of feathers worn as an ornament or a symbol of achievement or distinction, especially on a hat
232. re____e CO2 into the air *v.* to set free or allow to escape from confinement
233. re____e a composition *v.* to write something such as a book or speech again in a different way, usually to improve it or add new information
234. on the ve__e of tears *n.* the point at which something is about to happen or where something begins; the edge or margin of something, particularly a physical boundary or border
235. jo____l articles *n.* a newspaper or magazine specialized in a specific topic or profession
236. surgical ins____nts *n.* an object used to make musical sounds, such as a piano, guitar, or drum; a tool or device used for a specific activity, particularly in specialist or scientific work

ANSWERS: 228. basin, 229. exposed, 230. robotic, 231. plume, 232. release, 233. rewrite, 234. verge, 235. journal, 236. instrument

237. active vo_____o *n.* a mountain or hill, typically conical, having a crater or vent through which lava, rock fragments, hot vapor, and gas are or have been erupted from the earth's crust.
238. chest mea_____nt *n.* the act or process of finding something's size, quantity, or degree
239. in_____or decoration *n.* the inside or inner part of something; the space within the walls of a building
240. op_____ne occasion *adj.* suitable or happening at a time that is suitable or convenient for a particular purpose
241. vo_____o alert level *n.* a mountain or hill, typically conical, having a crater or vent through which lava, rock fragments, hot vapor, and gas are or have been erupted from the earth's crust.
242. a five-plane fl__y *n.* a close approach to a celestial body, especially a planet, by a spacecraft without landing or entering orbit
243. human ev_____on *n.* a gradual process of transformation of living things
244. basin-shaped va___y *n.* a long depression on the surface of the land, which typically contains a river
245. de___e on a course of action *v.* to make up someone's mind about something; to come to a conclusion or judgment after considering options
246. an ed_____al article *adj.* relating to the expression of opinions or interpretations in the media

ANSWERS: 237. volcano, 238. measurement, 239. interior, 240. opportune, 241. volcano, 242. flyby, 243. evolution, 244. valley, 245. decide, 246. editorial

247. an air-cooled en___e *n.* a machine that converts thermal energy to mechanical work; something that has an important role used to achieve a purpose
248. a fishing p___e *n.* one of two antipodal points where the Earth's axis of rotation intersects the Earth's surface; a long, slender, rounded rod, typically of wood or metal, used as a support or to hang something
249. a man of imp_____ce *n.* the quality of being important and worthy of note
250. ro___t attack against the enemy *n.* a large tube-shaped object that moves very first by a stream of gases let out behind it, used for space travel or as a weapon
251. un___d the story *v.* to open up or spread out something that is folded or rolled up; to reveal or disclose something that was previously hidden or unknown
252. land su_____or *n.* an engineer who measures and records the details of areas of land
253. tr_____it information *v.* to send or forward an electronic signal; to pass something from one person or thing to another
254. f___e their homes *v.* to leave by running away, especially out of fear or danger
255. ex_____ng football player *adj.* causing a lot of interest or excitement
256. pu_____ly financed schools *adv.* in a manner accessible to or observable by the public; by the government

ANSWERS: 247. engine, 248. pole, 249. importance, 250. rocket, 251. unfold, 252. surveyor, 253. transmit, 254. flee, 255. exciting, 256. publicly

257. di___r from the majority *v.* to be not like someone or something in some way
258. anthropology lab_____ry *n.* a workplace for doing scientific research or teaching science; a lab
259. a civil en_____er *n.* a person whose job is designing, building, or maintaining something such as machines, structures, or software
260. va___y bottom *n.* a long depression on the surface of the land, which typically contains a river
261. the ba__n of the Great Salt Lake *n.* a natural depression or valley that is circular or oval on the surface of the earth, especially one that has water in it; a container with a bowl form that is typically used to hold food or liquids
262. reduce me_____e emissions *n.* a chemical compound with the chemical formula CH₄ with no smell or color, often used as a fuel
263. th_____l insulation *adj.* relating to heat or temperature; designed for or capable of producing or maintaining heat
264. tr_____rt facilities *n.* a system for moving people or products from one location to another using automobiles, roads, and so on
265. pu_____ng questions *adj.* confusing or difficult to understand; mysterious
266. an_____t stories *adj.* relating to the long ago, particularly the historical period preceding the fall of the Western Roman Empire; very old
267. a public cor_____on *n.* a large company or group of companies that are controlled together by law as a single unit

ANSWERS: 257. differ, 258. laboratory, 259. engineer, 260. valley, 261. basin, 262. methane, 263. thermal, 264. transport, 265. puzzling, 266. ancient, 267. corporation

268. have ex_____ve vocabulary *adj.* covering a large area; having a wide range
269. plastic d__l *n.* a child's toy that typically represents a human figure, especially a young girl; an attractive woman; a woman who is subservient or passive
270. de___y safety measures *v.* to move troops or weapons into a position or military action; to bring into something in an effective way
271. a so__r eclipse *adj.* of, from, or relating to the sun
272. re_____e milk packaging into new paper *v.* to sort and collect things to process them and produce valuable materials that can be used again
273. sp___t and the letter of the law *n.* the part of a person which is the seat of their mind, feelings, and character rather than their physical body; the general atmosphere of a place or situation and the effect that it has on people
274. intelligence ag___y *n.* an organization or business that is responsible for specific activities or services, especially when representing other organizations or businesses; the capacity or power to act or exert influence; the ability to make decisions and take action
275. g__e cloning *n.* the fundamental unit of heredity and the sequence of nucleotides in DNA that codes for the creation of RNA or protein.

ANSWERS: 268. extensive, 269. doll, 270. deploy, 271. solar, 272. recycle, 273. spirit, 274. agency, 275. gene

276. cross-country od_____y *n.* a long wandering and eventful journey; a Greek epic poem attributed to Homer, describing the journey of Odysseus after the fall of Troy
277. the DNA se_____ce *n.* a series of related events, actions, numbers, etc., which have a particular order
278. pi_____nt the problem *v.* to locate or identify the exact position in space or time of something
279. de_____p a strategy *v.* to grow or expand; to improve or refine through a process of progress and refinement, often to achieve greater sophistication or complexity; to elaborate or add detail to something that is in the process of being created
280. a particle di_____er *n.* the length of a straight line passing through the center of a circle and connecting two points on the circumference
281. tr_____it the disease *v.* to send or forward an electronic signal; to pass something from one person or thing to another
282. art cr____c *n.* someone who expresses opinions about the quality of books, music, etc.

ANSWERS: 276. odyssey, 277. sequence, 278. pinpoint, 279. develop, 280. diameter, 281. transmit, 282. critic

Session 3: Fill in the Blanks

1. The flowers had a _____ tint, indicating they needed to be riper.
adj. having a color that is a shade of blue
2. The golfer recorded an _____ distance.
adj. extremely surprising, especially in a way that you like or admire
3. Four companies were amalgamated into a single _____.
n. a large company or group of companies that are controlled together by law as a single unit
4. The building's _____ system includes cameras, alarms, and security guards.
n. the state of being free from danger, risk, or harm; measures taken to protect against threats or attacks; a financial asset, such as a stock or bond that derives value exclusively from the ownership interest or claim to a particular underlying asset or obligation
5. The _____ of the country is struggling due to the recent political instability.
n. the system by which a country or region produces manages, and distributes goods and services, including the money and finances involved in these activities; (of an airline) the lowest-priced, most basic option for seating in commercial travel
6. Animal protection groups call for an end to animal testing in a _____.
n. a workplace for doing scientific research or teaching science; a lab
7. The ___ flew over the ocean at high speed, reaching its destination in hours.
n. a type of aircraft that is powered by one or more jet engines and can fly at high speeds, typically over long distances

ANSWERS: 1. bluish, 2. amazing, 3. corporation, 4. security, 5. economy, 6. laboratory, 7. jet

8. The policies he announces can be the _____ of economic growth in the country.
- n.* a machine that converts thermal energy to mechanical work; something that has an important role used to achieve a purpose
9. Many people are working together to close the gender ____.
- n.* a conspicuous disparity or difference separates something such as a figure, people, their opinions, situation, etc.
10. Scientists are studying the composition and origins of the _____ belt to understand the early solar system better.
- n.* (also "planetoid") a small rocky body orbiting the sun, typically in the region between Mars and Jupiter
11. The incident attracted _____ media coverage throughout the world.
- adj.* covering a large area; having a wide range
12. A defective ____ is responsible for the disease.
- n.* the fundamental unit of heredity and the sequence of nucleotides in DNA that codes for the creation of RNA or protein.
13. Launching an artificial _____ contributed to the technological development of our country.
- n.* an electronic device that is sent up into space and moves around the Earth or another planet, used for gathering information or communicating by radio, television, etc.
14. The _____ launch platform is visible from this hill.
- n.* a large tube-shaped object that moves very fast by a stream of gases let out behind it, used for space travel or as a weapon

ANSWERS: 8. engine, 9. gap, 10. asteroid, 11. extensive, 12. gene, 13. satellite, 14. rocket

15. Inspectors noticed _____ cracks in the submarine's hull.
adj. tiny; exceedingly precise and detail-oriented; of or used in microscopy
16. The _____ fragments were collected and sent to a laboratory for analysis.
n. a solid object originating in outer space that reaches the Earth's surface without completely vaporizing in the atmosphere; a rock that has fallen from space
17. The plane flew at a high _____ to avoid turbulence.
n. the height of an object or point in relation to sea level or ground level
18. The animal rights group worked to _____ the dolphins back into the wild.
v. to set free or allow to escape from confinement
19. The _____ demonstrate that poverty and unemployment are genuine problems.
n. the discipline that concerns the collection, organization, analysis, interpretation, and presentation of data
20. Tech companies often employ _____ ducts and other materials in their office interiors.
adj. having no protection or shield from something, such as bad weather, attack, or criticism
21. The Grand _____ has an awe-inspiring sight.
n. a large deep valley with very steep sides of rock and usually formed by a river
22. Advocates for legal reform hear less harsh words from their _____.
n. someone who expresses opinions about the quality of books, music, etc.

ANSWERS: 15. microscopic, 16. meteorite, 17. altitude, 18. release, 19. statistics, 20. exposed, 21. Canyon, 22. critics

23. _____ animals are graceful and efficient swimmers.

adj. relating to, or close to, the North or South Pole; characterized by complete opposites

24. The company decided to move its _____ to New York City.

n. the central office or location from which a business or organization is managed

25. Detectives are still attempting to _____ the mystery of his death.

v. undo twisted, knitted, or woven threads by separating it

26. _____ advances have disrupted many industries.

adj. based on scientific and industrial progress

27. I found an old _____ of my grandparents from their wedding day.

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

28. _____ symptoms might include a decrease in appetite and weight loss.

n. a mental condition in which a person feels very unhappy and without hope for the future; a severe recession in an economy or market

29. This study indicates _____ activity affects global warming.

adj. relating to or produced by or consisting of volcano

30. The findings of the experiment were both _____ and unexpected.

adj. causing a lot of interest or excitement

31. Humans and apes have _____ anatomical structures.

adj. able to link the similarities or differences with others; similar or equivalent to someone or something

ANSWERS: 23. Polar, 24. headquarters, 25. unravel, 26. Technological, 27. photograph, 28. Depression, 29. volcanic, 30. exciting, 31. comparable

32. The scratches on the car _____ its otherwise perfect appearance.
v. to damage or spoil the appearance or surface of something
33. Jockey's superior _____ brought him victory.
n. a particular way or art of doing something that needs skill
34. The human-crewed _____ successfully landed on the moon, fulfilling its mission.
n. a vehicle designed to travel through space, typically carrying astronauts or scientific instruments
35. They have been living near water since _____ times.
adj. relating to the long ago, particularly the historical period preceding the fall of the Western Roman Empire; very old
36. The road's _____ was steep, making it challenging for cyclists.
n. the degree or rate of incline or decline along a physical or abstract line; a gradual progression
37. 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
38. The mountainous _____ was rough and rocky.
n. the physical features of a piece of land, including hills, valleys, rivers, and forests
39. The bread's _____ was golden brown and crispy.
n. a hard outer layer that forms on the surface of a liquid as it cools or on a solid as a result of exposure to air or moisture

ANSWERS: 32. marred, 33. technique, 34. spacecraft, 35. ancient, 36. gradient, 37. mystery, 38. terrain, 39. crust

40. She couldn't _____ whether to order the pizza or the pasta for dinner.
- v.* to make up someone's mind about something; to come to a conclusion or judgment after considering options
41. This training includes emergency escape drills with _____.
- n.* a device used to slow the motion of people or objects through an atmosphere consisting of a large piece of thin cloth that is attached to them and opens out in the air
42. The surgeon removed the tumor using _____ video assistance.
- adj.* of or relating to mechanical robots; (robotics) the interdisciplinary branch of computer science and engineering with the practical use of robots
43. 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
44. The spacecraft's _____ system helped it travel through space.
- n.* the act or process of propelling or driving something forward, often using a motor, engine, or other mechanical means
45. 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
46. 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

ANSWERS: 40. decide, 41. parachutes, 42. robotic, 43. ingredient, 44. propulsion, 45. tunnel, 46. orbit

47. The _____ on Mars is gathering data on the planet's surface and sending it back to Earth.

n. a vehicle designed to travel over rough terrain, especially on the surface of a planet or moon

48. The ignition of _____ gas in the plant killed five employees.

n. a chemical compound with the chemical formula CH₄ with no smell or color, often used as a fuel

49. Global _____ plays a critical role in the formation of mountain ranges and the movement of Earth's crustal plates.

n. the study of the processes that shape the Earth's surface, including the movements of tectonic plates, earthquakes, and volcanic activity

50. This weather pattern is unique to the southern _____.

n. half of the terrestrial globe; half of a sphere

51. The _____ of the mountain made it difficult to breathe.

n. the height of something above sea level or above the ground; the event of something being raised upward

52. The government _____ regulated the country's food and drug safety standards.

n. an organization or business that is responsible for specific activities or services, especially when representing other organizations or businesses; the capacity or power to act or exert influence; the ability to make decisions and take action

53. The child was drawn to the _____ of the colorful toy display in the store.

n. the force that causes attraction or repulsion between magnetic substances; a charismatic or attractive quality that attracts people or causes them to be drawn to someone or something

ANSWERS: 47. rover, 48. methane, 49. tectonics, 50. hemisphere, 51. elevation, 52. agency, 53. magnetism

54. We must _____ a new system to streamline our workflow and increase efficiency.

- v. to grow or expand; to improve or refine through a process of progress and refinement, often to achieve greater sophistication or complexity; to elaborate or add detail to something that is in the process of being created

55. The company is set to _____ its new product line next month.

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

56. 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

57. This radar quickly _____ the position of the enemy.

- v. to locate or identify the exact position in space or time of something

58. Every human is responsible for taking care of the Earth's _____.

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

59. Mercury is the closest _____ to the sun.

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

60. I need to _____ most of the essay with feedback from my teacher.

- v. to write something such as a book or speech again in a different way, usually to improve it or add new information

ANSWERS: 54. develop, 55. launch, 56. liquid, 57. pinpoints, 58. environment, 59. planet, 60. rewrite

61. The phone rang at the most _____ time.

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

62. I stopped by the branch though I have no business of _____.

n. the quality of being important and worthy of note

63. The painter focused on the moody _____ of abandoned buildings in his work.

n. the inside or inner part of something; the space within the walls of a building

64. Do you know the _____ of the population in Hong Kong?

n. the quality of compactness of a substance

65. The two products _____ in their quality and price.

v. to be not like someone or something in some way

66. The vehicle bounced along the _____ mountain road.

adj. not quite exact or correct; having or caused by an irregular surface

67. It is essential to keep these two issues _____.

adj. noticeable from something else of a similar type

68. The North _____ is the northernmost point on Earth.

n. one of two antipodal points where the Earth's axis of rotation intersects the Earth's surface; a long, slender, rounded rod, typically of wood or metal, used as a support or to hang something

69. We largely _____ the circuit board of cell phones because they contain a lot of valuable metals.

v. to sort and collect things to process them and produce valuable materials that can be used again

ANSWERS: 61. opportune, 62. importance, 63. interiors, 64. density, 65. differed, 66. rough, 67. distinct, 68. Pole, 69. recycle

70. The mystery _____ as the detectives gathered more clues.

- v.* to open up or spread out something that is folded or rolled up; to reveal or disclose something that was previously hidden or unknown

71. Despite their tragic loss, the family is showing great _____.

- n.* the part of a person which is the seat of their mind, feelings, and character rather than their physical body; the general atmosphere of a place or situation and the effect that it has on people

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

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

73. The _____ index tracks the performance of multiple stocks in the same sector.

- adj.* made up of different parts, elements, or substances; (noun) something made from two or more different substances

74. They study the _____ of the universe.

- n.* a gradual process of transformation of living things

75. He has a flair for _____.

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

76. This country _____ its weapons in the east region.

- v.* to move troops or weapons into a position or military action; to bring into something in an effective way

77. He _____ the computer's operating system to remove the safeguard.

- v.* to modify or recreate a program

ANSWERS: 70. unfolded, 71. spirit, 72. sequence, 73. composite, 74. evolution, 75. mathematics, 76. deployed, 77. reprogrammed

78. An enormous _____ marks the area where the vast volcanic explosion occurred.
- n.* a huge bowl-shaped cavity in the earth or an object in space, usually created by an explosion or the impact of a meteorite
79. Enhanced rail _____ is crucial for our business.
- n.* a system for moving people or products from one location to another using automobiles, roads, and so on
80. Parents often _____ their characteristics to their children.
- v.* to send or forward an electronic signal; to pass something from one person or thing to another
81. The island was formed by a _____ millions of years ago.
- n.* a mountain or hill, typically conical, having a crater or vent through which lava, rock fragments, hot vapor, and gas are or have been erupted from the earth's crust.
82. The _____ asked various related questions about the land.
- n.* an engineer who measures and records the details of areas of land
83. We store customer data in cloud _____.
- n.* the act or process of putting in and keeping something in a particular place for use in the future; an electronic memory device that can store information
84. The _____ of the region is rugged, with many hills and valleys.
- n.* the arrangement and physical features of a particular area or region, including its natural and artificial elements and their relative positions and elevations; the study or description of this arrangement and these features

ANSWERS: 78. crater, 79. transportation, 80. transmit, 81. volcano, 82. surveyors, 83. storage, 84. topography

85. The graphic designer will _____ the logo over the image in the brochure.
- v.* to place, layer, or overlay one thing on top of another, typically in such a way that both are still visible; to add or combine something additional into an existing structure, design, or system
86. It is an incredible _____ to climb Mount Everest, the highest mountain in the world.
- n.* a notable or impressive achievement, especially one that requires great skill or bravery
87. He was pretty _____ to pass the exam.
- adj.* having good luck or lucky
88. This electronic _____ is required to undergo periodic inspections to ensure precision.
- n.* an object used to make musical sounds, such as a piano, guitar, or drum; a tool or device used for a specific activity, particularly in specialist or scientific work
89. He studied _____ in college and worked as an aerospace engineer.
- n.* the science or art of designing, building, and flying aircraft
90. The antique _____ was worth thousands of dollars.
- n.* a child's toy that typically represents a human figure, especially a young girl; an attractive woman; a woman who is subservient or passive
91. The _____ of Japan is known for its unique culture and advanced technology.
- n.* a large organized community of people living in a particular country or region and having a particular culture
92. The younger _____ has different values and beliefs than the older one.
- n.* all the people born and living at about the same time, regarded collectively; the production of heat or electricity

ANSWERS: 85. superimpose, 86. feat, 87. fortunate, 88. instrument, 89. aeronautics, 90. doll, 91. nation, 92. generation

93. He made a New Year's _____ to exercise more and eat healthier.
n. a firm decision or determination to do or not do something; the action of solving a problem, dispute, or conflict; the quality of being resolved or determined; the clarity and sharpness of an image or display
94. The _____ had received a mild snowfall the previous week.
n. a long depression on the surface of the land, which typically contains a river
95. The captain announced that all passengers should be _____ the ferry before it departed for the island.
adv. on or onto a ship, aircraft, or other vehicles; present or participating in a particular activity or endeavor
96. The new gym membership has improved his _____ and overall health.
n. the state of being strong and active; energy
97. The MRI machine uses _____ to produce images of the body's internal organs.
n. an object or substance that can attract certain materials, such as iron or steel
98. He stood on the _____ of a major discovery.
n. the point at which something is about to happen or where something begins; the edge or margin of something, particularly a physical boundary or border
99. The detective found the clues _____ and couldn't solve the case immediately.
adj. confusing or difficult to understand; mysterious
100. The _____ between the two countries was causing tension.
n. the force that opposes motion between two objects in contact, especially by producing heat and wear, and is proportional to the normal force between the objects

ANSWERS: 93. resolution, 94. valley, 95. aboard, 96. vitality, 97. magnets, 98. verge, 99. puzzling, 100. friction

101. The general gave a _____ to his troops to prepare for battle.

n. authority, control, or mastery over something, often referring to military or leadership contexts; a directive, order, or instruction; expertise or confidence in a specific area; (verb) to give an authoritative order or instruction, or to be in charge or control of something

102. The spacecraft will conduct a _____ of the moon to gather data.

n. a close approach to a celestial body, especially a planet, by a spacecraft without landing or entering orbit

103. He was a visiting _____ professor at the University of Tokyo.

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

104. The _____ imaging camera was used to detect heat signatures in the dark.

adj. relating to heat or temperature; designed for or capable of producing or maintaining heat

105. This year's _____ gathering will be held in Canada.

adj. important and large in size, scope, or extent

106. The _____ view from the airplane showed the beautiful landscape below.

n. a type of acrobatics or gymnastics performed while suspended from hanging fabric or rings; a pass or shot in sports (particularly in soccer or volleyball) that is made while the player is in the air

107. The bald eagle has an impressive _____ of over 7 feet.

n. the distance between the tips of a bird's wings when fully extended and in flight; often used to describe the size or scope of something, particularly about physical objects or structures

ANSWERS: 101. command, 102. flyby, 103. geology, 104. thermal, 105. grand, 106. aerial, 107. wingspan

108. The _____ will repair my telephone tomorrow morning.
- n.* a person whose job is designing, building, or maintaining something such as machines, structures, or software
109. Her new documentary earned her an _____ Award.
- n.* a school for special training; a type of official organization that aims to encourage and develop standards in its particular field
110. The company's new _____ project explores new ways to use renewable energy.
- n.* a person or thing that leads the way or explores new territory; someone who finds or discovers a new route or method; a person or vehicle used to navigate or explore unfamiliar or dangerous areas
111. The spaceship began to burn up as it approached the Earth's _____.
- n.* the mass of air that surrounds the Earth; the pervading tone or mood of a place, situation, or creative work
112. She _____ denounced the government's mishandling of the economic crisis.
- adv.* in a manner accessible to or observable by the public; by the government
113. The _____ layers of the ocean are still largely unexplored.
- adj.* situated or located beneath the surface of something; existing or occurring within the deeper layers of a material or object, often referring to areas below the Earth's surface
114. Where can I _____ the application form?
- v.* to get something, especially by making a great effort
115. Our company _____ to the school endowment fund every year.
- v.* to give money, food, clothes, etc. to help a person or organization

ANSWERS: 108. engineer, 109. Academy, 110. pathfinder, 111. atmosphere, 112. publicly, 113. subsurface, 114. obtain, 115. donates

116. Many of the lakes and marshes in the _____ are mildly salty.

- n.* a natural depression or valley that is circular or oval on the surface of the earth, especially one that has water in it; a container with a bowl form that is typically used to hold food or liquids

117. The satellite _____ slowly ascended into the sky.

- n.* a small bag made of thin rubber or other light material that can be inflated with air or gas, used as a toy or as a decoration; (verb) to become inflated

118. 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

119. It is a basic instinct to _____ from a dangerous situation.

- v.* to leave by running away, especially out of fear or danger

120. We had to take a _____ flight because no direct flights were available.

- adj.* relating to or taking place across the open country rather than on roads or tracks; involving travel by foot, horse, or vehicle over rough terrain or through wilderness areas; (noun) a long-distance race or journey that takes place over rough or varied terrain, such as hills, forests, or fields

121. We _____ a cease-fire.

- v.* to come to an end or close; to reach a judgment or opinion by reasoning

122. The fragrance of flowers _____ from the garden.

- v.* to emit, send out something; to express a quality or feeling

123. The bird had a beautiful _____ on its head.

- n.* a large feather or group of feathers worn as an ornament or a symbol of achievement or distinction, especially on a hat

ANSWERS: 116. basin, 117. balloon, 118. intriguing, 119. flee, 120. cross-country, 121. concluded, 122. emanated, 123. plume

124. The _____ balloons floated into the sky.
- n.* a colorless, odorless, tasteless, non-toxic, inert, monatomic gas, the first in the noble gas series in the periodic table
125. The _____ of the ice age have shaped Fjord.
- n.* a slowly moving mass of ice formed from snow on mountains or near the North Pole or the South Pole
126. We want to _____ you to our annual charity event.
- v.* to ask someone to come or join; to offer an opportunity or possibility for something to happen or take place
127. The guest speaker was given an _____ for delivering an insightful lecture.
- n.* a payment or fee given to someone, typically for professional services, that is not officially required or a standard salary, often given as a token of appreciation or to show respect
128. The unique style of this martial arts _____ many action film producers.
- v.* to make somebody fill with the desire, confidence, or enthusiasm, especially to do something creative
129. A local artist created the _____ sculpture in the park.
- n.* a mythical bird that is said to live for several hundred years before dying in flames and then rising again from its ashes; a symbol of rebirth, regeneration, or immortality
130. That adventurer traveled in _____ of buried treasure.
- n.* a long or challenging search for something
131. Draw a circle five centimeters in _____.
- n.* the length of a straight line passing through the center of a circle and connecting two points on the circumference

ANSWERS: 124. helium-filled, 125. glaciers, 126. invite, 127. honorarium, 128. inspired, 129. phoenix, 130. quest, 131. diameter

132. The _____ error of this industrial machine is less than one micrometer.
n. the act or process of finding something's size, quantity, or degree
133. There are various hypotheses concerning the _____ of life.
n. the first existence or beginning of something
134. The spacecraft had a successful _____ launching into the atmosphere.
n. the moment when a spacecraft or other vehicle takes off and lifts off the ground; the act or process of launching or beginning an endeavor
135. _____ panels have greatly improved not only in performance but also in durability.
adj. of, from, or relating to the sun
136. He continued the extraordinary _____ with his brother.
n. a long wandering and eventful journey; a Greek epic poem attributed to Homer, describing the journey of Odysseus after the fall of Troy
137. The physician is reading the _____ related to medicine
n. a newspaper or magazine specialized in a specific topic or profession
138. The newspaper published an _____ on the current state of the economy.
adj. relating to the expression of opinions or interpretations in the media
139. 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
140. The experienced _____ guided the ship through treacherous waters.
n. a sailor or seaman; someone who works or travels on a boat or ship

ANSWERS: 132. measurement, 133. origin, 134. liftoff, 135. Solar, 136. odyssey, 137. journals, 138. editorial, 139. presence, 140. mariner

141. Graduating from college was a major _____ for her.

- n.* the successful completion of a task or goal; an ability that has been acquired by training

ANSWERS: 141. accomplishment