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Vocabulary Builder Reference from...

Geoffrey West: The surprising math of cities and corporations | TED Talk https://www.ted.com/talks/geoffrey_west_the_surprising_math_of_cities_and_corporations



All Words

IMPORTANT

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Session 1: Word List

crucible

 a vessel made of ceramic, metal, or other materials used for melting or fusing substances at high temperatures; a difficult or trying experience that tests one's character or resilience

synonym: melting pot, cauldron, furnace

(1) electric **crucible** furnace, (2) fire **crucible** The scientific experiment required the use of a high-temperature **crucible**.

civilization

n. a complex and highly organized society that has developed over time and has a dominant culture, including features such as language, religion, government, technology, and social customs

synonym: society, culture, community

(1) **civilization** decline, (2) lost **civilization**The rise and fall of **civilizations** can be studied through history and archaeology.

expand

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

synonym: extend, grow, boost

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

urbanization

n. the process of population growth and physical expansion of cities, often involving increased migration from rural areas and the development of urban infrastructure and culture

synonym: urban development, urban growth, urban expansion

(1) **urbanization** process, (2) non- **urbanization** area Rapid **urbanization** has led to many environmental and social issues in cities.

exponential

- adj. becoming more and more rapid; of or involving mathematical exponents
- (1) **exponential** growth, (2) **exponential** function Since the 1990s, the Internet has continued to experience **exponential** growth.

planet

 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.

dominate

v. to have or control a lot of power and influence over somebody or something

synonym: govern, rule, prevail

(1) **dominate** possession, (2) **dominate** over the weak The perspective of his right brain **dominates** his consciousness.

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.

environment

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

synonym: atmosphere, surroundings, climate

environment affairs, (2) chaotic environment Every human is responsible for taking care of the Earth's environment.

pollution

- the introduction of harmful substances or waste into the natural environment that causes adverse change
- synonym: corrosion, deterioration, corruption
- (1) environmental **pollution**, (2) high levels of air **pollution**The **pollution** is endangering the local plants and animals.

disease

- a disorder or illness that affects the body or mind, often characterized by specific symptoms or abnormal functioning of organs or systems
- synonym: illness, ailment, affliction
- (1) **disease** prevention, (2) **disease** control

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

finance

- n. the management of money, credit, banking, and investments, especially by a government or commercial organization; the branch of economics that studies the management of money and other assets
- synonym: banking, investment, fund
- (1) finance act, (2) manage my finances

Our company decided to hire an advisor who specializes in **finance**.

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.

confront

v. to face, meet or deal with a problem or difficult situation or person

synonym: engage, encounter, contend

(1) **confront** a global warming, (2) **confront** the issue He finally decided to **confront** problems directly.

tsunami

 a huge ocean wave caused by an earthquake, volcano, or other disturbance

synonym: tidal wave, seismic sea wave

(1) tsunami warning, (2) tsunami relief

The earthquake- **tsunami** caused widespread destruction along the coast.

sustainable

adj. able to continue or be continued for a long time *synonym*: continuable, endurable, tolerable

(1) **sustainable** alternative fuel, (2) principles of **sustainable** development

The government should do more to support environmentally **sustainable** agriculture.

quest

- a long or challenging search for somethingsynonym: exploration, inquisition, pursuit
- (1) the **quest** for truth, (2) on a **quest** for happiness That adventurer traveled in **quest** of buried treasure.

reflection

n. the act of thinking deeply about something, or the ability to think deeply; the image of something that is seen in a mirror or other reflective surface

synonym: contemplation, meditation, consideration

(1) reflection question, (2) photon reflection

The teacher asked the students to write a **reflection** on the book they had just read.

numb

adj. unable to feel physical sensation and movement; not showing human feeling or sensitivity

synonym: dazed, insensitive, emotionless

numb with cold, (2) a numb mind
 My left arm became numb.

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.

urbanize

v. to make an area more urban in character or nature, often through the development and expansion of cities or towns

synonym: develop, modernize, city-build

(1) **urbanize** a region, (2) **urbanize** transportation systems. The government plans to **urbanize** the rural area by building more housing units and improving transportation infrastructure.

halfway

adj. in or at a point midway or an equal distance between two points

synonym: middle, median, center

(1) **halfway** through my journey, (2) **halfway** decent job The famous restaurant stands **halfway** up the hill.

foresee

v. to perceive or predict; to anticipate or expect something to happen in the future

synonym: predict, anticipate, forecast

(1) **foresee** the consequences, (2) **foresee** challenges I **foresee** a problem arising if we don't address this issue now.

affected

adj. influenced; feeling or showing emotion, especially exaggerated emotion; not natural or sincere

synonym: artificial, pretentious, stilted

affected way of walking, (2) the affected part
 Her affected accent made it difficult to take her seriously.

extraordinary

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

synonym: exceptional, noteworthy, astonishing

(1) **extraordinary** ability, (2) **extraordinary** weather He narrated the **extraordinary** story of his adventure.

phenomenon

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

synonym: marvel, wonder, splendor

(1) natural phenomenon,(2) historical phenomenonA rainbow is a natural phenomenon.

negative

adj. having the quality of something bad or harmful; expressing refusal

synonym: minus, adverse, pessimistic

(1) have a **negative** effect, (2) a **negative** number The movie has received almost universally **negative** criticism.

aspect

- n. one part or feature of a situation, problem, subject, etc.synonym: characteristic, element, factor
- (1) nontechnical aspects of the job, (2) aspects of social, political, and economic lifeHis professional experience includes all aspects of media

production.

vacuum

- n. a space empty of matter; a device or tool used for cleaning or removing debris by creating suctionsynonym: void, emptiness, gap
- (1) **vacuum** cleaner, (2) **vacuum** packing Please use the **vacuum** to clean up the mess on the floor.

magnet

 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.

creative

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

synonym: imaginative, innovative, inventive

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

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

innovation

 the creation of a new device or process resulting from study and experimentation

synonym: invention, initiation, creation

(1) innovation leader, (2) cutting-edge innovation

The vegetarian burger was an **innovation** that quickly spread to the United Kingdom.

wealth

 a large amount of money, property, or other things that someone or an organization owns

synonym: affluence, assets, fortunate

(1) majority of his wealth, (2) material wealth

The wealth inequality was unavoidable.

dual

adj. having two parts, aspects, or elements

synonym: twofold, binary, double

(1) dual purpose, (2) dual nationality

This laptop has a **dual-core** processor, making it fast and efficient.

urgent

adj. requiring immediate attention or action; pressing *synonym*: pressing, critical, immediate

(1) an urgent telegram, (2) urgent situation

It is **urgent** that we leave for the airport now to catch our flight.

comrade

n. a close associate, friend, or companion, especially one who shares one's interests, beliefs, or political convictions; a fellow member of an organization, especially a military or political group, who shares a common cause or objective

synonym: ally, friend, mate

(1) comrade in arms, (2) trusted comradeWe worked together as comrades to finish the project on

time.

entropy

 a scientific concept that is most commonly associated with a state of disorder, randomness, or uncertainty

synonym: randomness

(1) **entropy** calculation, (2) **entropy** conservation

Since the second law of thermodynamics is applicable to the universe, the **entropy** of the universe continues to increase.

indicator

n. something that shows or points out what a situation is like or how a situation is changing

synonym: barometer, signal, index

(1) indicator lamp, (2) performance indicators

Several IT millionaires have shown that the level of education is a relatively poor **indicator** of whether a business can be successfully run.

provocative

adj. arousing anger, interest, or another strong reaction, especially deliberately

synonym: instigating, provoking, inciting

(1) **provocative** questions, (2) a **provocative** smile His **provocative** style frequently sparked controversies.

desperately

adv. in a way that shows a lack of hope and a willingness to do anything because of the problematic situation; with great urgency

synonym: urgently, perilously, seriously

(1) **desperately** anxious, (2) **desperately** ill patient The baby clung **desperately** to her mother.

quantifiable

adj. able to be measured, expressed, or quantified in numerical or statistical terms

synonym: measurable, calculable

(1) non- **quantifiable** risk, (2) **quantifiable** results

The impact of the new policy will be **quantifiable** through measurable data.

rely

v. to require a specific thing or the assistance and support of someone or something to continue, run properly, or succeed.

synonym: depend, count, lean

(1) **rely** on convenience stores, (2) **rely** entirely on him Babies heavily **rely** on others for food.

underlying

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

synonym: fundamental, latent, basic

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

The underlying principle of every business was identical.

generic

adj. not specific; not linked to a particular brand or product *synonym*: common, ordinary, typical

(1) a **generic** product, (2) **generic** version

The **generic** aspirin brand was just as effective as the name brand but much cheaper.

principle

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

synonym: rule, creed, code

(1) **principle** of treatment, (2) **principle** in business Efficiency isn't an essential **principle** here; fairness is.

predict

- v. to state beforehand that something will happen in the future, mainly based on knowledge or experience
 synonym: forecast, anticipate, foresee
- (1) predict the future, (2) predict when she will arrive

It's notoriously challenging to **predict** birth rates.

framework

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

synonym: structure, scheme, foundation

(1) legal **framework**, (2) the **framework** of a house He devised a new analytical **framework** to capture the phenomenon.

conceivable

adj. imaginable or possible to understand or believe in the mind

synonym: believable, imaginable, probable

(1) **conceivable** way, (2) **conceivable** emergency It is challenging to defend every **conceivable** target.

universal

adj. existing or affecting everywhere or everyone synonym: common, broad, worldwide

(1) **universal** life, (2) principles of **universal** design The picture earned near- **universal** acclaim from critics.

biology

- the scientific study of life and the natural processes of living things
- (1) evolutionary **biology**, (2) cell and molecular **biology** In junior high school, we had to dissect a frog in **biology** class.

whale

 a very large sea mammal that has a streamlined body and breathes through a blowhole on the head; a very large person; impressive in size or qualities

synonym: porpoise, giant

(1) a bull **whale**, (2) **whale** watching

Some countries have a culture of eating the flesh of a whale.

anthill

 a mound or hill made by a colony of ants, often as a nest or shelter, which can vary in size and shape depending on the species of ant and the surrounding environment synonym: ant nest, ant mound, formicary

(1) anthill colony, (2) anthill on the trail

The ants were busy building an **anthill** in the garden.

metaphor

 a figure of speech in which an expression is used to refer to something that it does not denote to suggest a similarity

synonym: conceit, analogy, symbol

(1) metaphor for death, (2) visual metaphor

She expressed her thought in an artful choice of **metaphors**.

metabolism

- the set of chemical reactions in cells or organisms that are necessary for life-sustaining
- (1) **metabolism** enzyme, (2) hemoglobin **metabolism** Better sleep leads to increased **metabolism**.

substance

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

synonym: essence, core, material

(1) an explosive **substance**, (2) **substance** abuse problem The **substance** of the argument was well-presented.

atom

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

synonym: particle, element, fraction

(1) oxygen **atom**, (2) neutral hydrogen **atoms**The outermost electron shell of an **atom** determines its chemical characteristics.

bomb

 a weapon that explodes and is used to kill or injure people or to cause damage to something

synonym: missile, explosive, ammunition

(1) atomic **bombs**, (2) disarm the **bomb**

The use of cluster **bombs** is strictly prohibited by international law.

survive

- v. to live or exist despite a dangerous event or period synonym: endure, persist, stay
- (1) **survive** a blizzard, (2) **survive** a plane crash These birds can only **survive** in temperate climates.

bust

v. to break something; (noun) a woman's chest, or the measurement around a woman's chest; (noun) an occasion for something excessive, such as work, eating, drinking, etc.

synonym: ruin, fall apart, (noun) breast

(1) **bust** my leg, (2) the **bust** of the statue I'm **bust** with preparation for tomorrow's meeting.

branch

 a division of a tree or woody shrub that grows out from the trunk or a main stem; a division of some larger or more complex organization

synonym: limb, twig, bough

(1) branch office, (2) a branch pipe

The **branch** of the tree had fallen and blocked the road.

canopy

 a covering, typically of fabric, supported on poles or suspended above a bed, throne, or other object, used to shelter or screen the person or object below it

synonym: cover, top, shade

(1) **canopy** layer, (2) under a **canopy** of smoke The forest's **canopy** provides shade and protection for the plants and animals below.

mortality

- n. the quality or state of being subject to deathsynonym: fatality
- (1) **mortality** due to cancer, (2) lower infant **mortality** This disease has a high **mortality**.

mathematics

 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.

recognize

v. to acknowledge or realize something or someone; to identify, remember, or become aware of something that was previously known or encountered

synonym: acknowledge, identify, admit

(1) **recognize** talent, (2) **recognize** achievement It's important to **recognize** your strengths and weaknesses.

scalable

 adj. capable of being easily expanded or increased in size, number, or scale to meet changing demands

synonym: expandable, flexible, adjustable

(1) **scalable** solution, (2) dynamically **scalable**The company's new software is highly **scalable**, allowing it to handle increasing number of users.

mammal

- any animal of which the female gives birth to live young, not eggs, and feeds her young on milk from her own body
- (1) a primitive **mammal**, (2) a sort of **mammal**Marine **mammal** populations are declining worldwide due to ocean pollution.

dynamics

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

synonym: mechanics, kinetics, kinematics

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

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

organization

a group of people who work together for a shared purpose

synonym: association, institution, community

(1) organization chart, (2) agricultural organization

She is the president of a large international **organization**.

resilient

adj. able to withstand or recover quickly from difficult conditions

synonym: robust, sturdy, tough

(1) a hard and **resilient** steel, (2) **resilient** population

She is a **resilient** person and has always bounced back from setbacks.

robust

adj. sturdy and healthy in form, constitution, or construction;
 strong enough to withstand or overcome intellectual
 challenges or adversity

synonym: healthy, strong, booming

(1) **robust** growth, (2) a **robust** appetite

The experiment yielded **robust** results that support his theory.

discuss

v. to talk about or examine in detail through conversation or debate; to exchange ideas, opinions, or information on a particular topic

synonym: talk about, converse, debate

(1) discuss options, (2) discuss solutions

We need to **discuss** the next steps for the project during our meeting tomorrow.

prediction

n. the act of predicting the future by reasoning; a statement made about the future

synonym: forecast, anticipation, foretelling

(1) make my **predictions**, (2) gloomy **predictions**These results muddled the **prediction**.

paradigm

 a standard or typical example of something; a pattern or model

synonym: example, standard, epitome

(1) major **paradigm** shift, (2) cultural **paradigm**He postulated a completely different **paradigm** to explain all these phenomena.

thrust

v. to push or drive forcibly; to impose or insert; (noun) the force used in pushing

synonym: push, shove, prod

(1) **thrust** a dagger home, (2) **thrust** a plate away The engine **thrust** the rocket into space.

illustrate

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

synonym: demonstrate, explain, exemplify

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

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

stick

v. to put something, usually a sharp object, into something; to restrict yourself to doing or using one certain thing and not change; (noun) a thin piece of wood or other material

synonym: pierce, adhere, stay

(1) stick a key in a lock, (2) fire stick

You **stick** a bill in the change machine, and the coins pop out.

bunch

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

synonym: group, assemblage, bundle

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

One bad apple spoils the whole bunch.

software

 a set of computer programs and associated documentation and data for doing particular computational jobs

synonym: program, system, operating system

(1) **software** architect, (2) copyrighted **software**

The company specializes in both hardware and **software**.

revenue

 the income that a government receives from taxes or that a company earns from its business

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synonym: earnings, payment, remuneration

(1) tax revenue, (2) annual revenue

This graph indicates the city's tourism **revenue** over five years.

zoom

v. to move along very quickly; (noun) the act of rising upward into the air

synonym: move quickly, dive, buzz

(1) **zoom** in on a photo, (2) **zoom** lens

He **zoomed** back in time to the soccer game.

doll

 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.

explicit

adj. stated clearly and in detail, leaving no room for confusion or doubt

synonym: clear, unambiguous, unequivocal

(1) explicit content, (2) explicit instructions

The movie had an **explicit** sex scene that some viewers might find offensive.

remarkable

adj. worthy of attention because unusual or special *synonym*: outstanding, exceptional, extraordinary

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

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

graph

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

synonym: chart, diagram, figure

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

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

plot

 a secret plan or scheme to achieve a specific goal; the plan or main story of a literary work; (verb) to plan secretly, usually something illegal

synonym: scheme, plan, design

(1) **plot** twist, (2) **plot** a revolution

The **plot** of the novel centers around a group of friends who uncover a conspiracy to control the world's water supply.

mass

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

synonym: abundance, crowd, mob

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

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

organism

n. a tiny living thing

synonym: being, creature

(1) aerobic organism, (2) group of organisms

A diversified plant species generally enhances beneficial **organism** populations.

slightly

adv. in a small degree or extent; a little

synonym: barely, narrowly, scarcely

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

He moved his body slightly to the left.

complexity

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

synonym: intricacy, sophistication, elaboration

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

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

diverse

adj. including numerous categories of individuals or entities;various

synonym: manifold, various, myriad

(1) **diverse** backgrounds, (2) a person of **diverse** talents New York is a city with a **diverse** ethnic population.

universe

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

synonym: cosmos, macrocosm

(1) theory of the **universe**, (2) expansion of the **universe** The **universe** is about 13.8 billion years old.

simplicity

 the quality or condition of being natural and plain or easy to understand or do

synonym: easiness, plainness, modesty

(1) a life of simplicity,(2) refined simplicityHe liked the car because of the simplicity of the design.

astonishing

adj. surprising or shocking; difficult to believe synonym: surprising, shocking, astounding

(1) **astonishing** achievement, (2) make **astonishing** gains The news of her sudden death was **astonishing** to everyone who knew her.

subsystem

 a part or component of a larger system that performs a specific function or functions interdependent with other subsystems to accomplish the overall function of the larger system

synonym: division, branch, element

(1) control **subsystem**, (2) heating **subsystem**The computer's **subsystem** failed and caused the entire system to shut down.

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.

evolve

v. to develop gradually, or to cause the development of something or someone gradually

synonym: develop, mature, grow

(1) **evolve**, (2) **evolve** over the past decade

Eyeless fish **evolved** in dark caves.

unique

adj. being the only one of its kind; unlike anything else *synonym*: one-of-a-kind, unparalleled, incomparable

(1) a unique teacher, (2) unique design

The painting is **unique**, and there is no other like it.

niche

 a specialized role or position that a species occupies within an ecosystem; a job or position particularly well suited to the person who occupies it

synonym: role, position, habitat

(1) **niche** market, (2) every **niche** of society

The species occupies a unique **niche** in the ecosystem as a top predator.

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.

constrain

 to restrict or limit someone or something's freedom or ability to do something

synonym: restrict, limit, confine

(1) **constrain** his freedom, (2) **constrain** information flow The political situation **constrained** the country's economic growth and foreign relations.

slope

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

synonym: gradient, pitch, slant

- (1) an abrupt **slope**, (2) slide down a **slope** on a ski The hut stands on the **slope** of a mountain.
- curve n. a bend or ar straight or fla

 a bend or angle in a line or surface that deviates from a straight or flat path; a gradual or smooth change in direction or shape

synonym: bend, arc, turn

(1) learning curve, (2) yield curve

The **curve** in the road was so sharp that I had to slow down to navigate it safely.

straight

 adj. extending or moving in one direction without bending or curving; having no deviations

synonym: linear, honest, consecutive

(1) a **straight** line, (2) **straight** for two months He was sick for five **straight** days.

quarter

- n. one of four equal parts; a fourth part or portionsynonym: fourth, one-fourth
- (1) a **quarter** mile, (2) end of the first **quarter**The unemployment rate in the first **quarter** was 2.3 percentage points higher than in the previous.

roughly

adv. approximately but not precisely; with a violent manner synonym: approximately, more or less, around

(1) **roughly** explain my idea, (2) **roughly** speaking Five miles is **roughly** similar to eight kilometers.

linear

adj. of, relating to, or consisting of lines or length; able to be expressed as a straight line, especially on a graph

synonym: straight, direct, right

(1) **linear** trend, (2) a **linear** equation People tend to make **linear** predictions.

steep

adj. having a sharp inclination or slopesynonym: sheer, precipitous, abrupt

(1) a **steep** staircase, (2) **steep** discount The **steep** cliff made it difficult to climb.

translate

- v. to convert or change words into another language synonym: convert, transcribe, render
- (1) **translate** a document into English, (2) **translate** the emotion to a movement

Translate the text from Italian into English.

well-defined

adj. having clear and precise boundaries or characteristics;
 distinctly outlined or delimited; easily understood or recognizable

synonym: clear, distinct, precise

(1) **well-defined** terms, (2) **well-defined** objectives The **well-defined** set of instructions made it easy to assemble the furniture.

capita

 a Latin word meaning "head," used to express the amount for each person; any head or headlike expansion on a structure, as on a bone

synonym: head, headcount, person

(1) per **capita** sales, (2) the agricultural yield per **capita** GDP per **capita** shrunk by almost 10 percent for the third consecutive year.

physiological

adj. relating to the normal functioning of living organisms and their organs and systems; concerning the physical or biochemical processes and activities that occur within the body

synonym: biological, organic, bodily

(1) **physiological** response, (2) **physiological** activity The doctor explained the various **physiological** changes that occur during pregnancy.

variable

adj. likely to change or vary often; (noun) a symbol, like x or y, that is used in mathematical or logical expressions to represent a value that may be changed

synonym: erratic, inconsistent, irregular

(1) a **variable** species, (2) a dependent **variable** Rainfall in the tropics is highly **variable**.

regularity

n. the quality or state of being done often; conformity to a set of rules, standards, or expectations; the state of occurring with a consistent or predictable pattern or frequency

synonym: consistency, uniformity, regularness

(1) the **regularity** of his breathing, (2) sleep **regularity**The **regularity** of exercise is important for maintaining good health.

physiology

- the branch of the biological sciences dealing with the functioning of organisms
- (1) human **physiology**, (2) **physiology** research **Physiology** is the science of how living things work.

intracellular

adj. existing or occurring within the cells of an organism or structure; situated or taking place within the boundaries of a cell

synonym: cellular, intracellularly

(1) **intracellular** compartment, (2) **intracellular** parasites The **intracellular** signaling pathways play a crucial role in cellular communication.

multicellular

adj. characterized by the presence of multiple or many cells, as opposed to unicellular (having only one cell)

synonym: multicelled, many-celled, complex

(1) multicellular tissues, (2) multicellular life Multicellular organisms are composed of many specialized cells working together.

ecosystem

- all the plants and living creatures in an area and the way they affect each other and the environment
- (1) marine **ecosystem**, (2) change the **ecosystem**Human conservation efforts often fail unexpectedly because they disturb the balance of the **ecosystem**.

summary

 a brief statement that provides the critical aspects of something without going into depth

synonym: outline, digest, overview

(1) a **summary** execution, (2) a **summary** of the conclusions

A **summary** is at the end of the book.

constraint

 a limit or restriction on something, such as an action, behavior, or thought

synonym: limitation, restriction, bound

constraint on business activity, (2) strict time
 constraints

The budget **constraint** forced them to make difficult decisions.

circulatory

- adj. relating to the system that moves blood through the body, which includes the heart, arteries, and veinssynonym: circulative, rotating
- (1) a **circulatory** disease, (2) cause **circulatory** failure shock

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

introduction

n. a preliminary explanation or remarks given before the start of a text, performance, or event; the act of bringing something new into existence or introducing something to a wider audience or new market

synonym: initiation, preamble, prologue

introduction education, (2) self- introduction
 The introduction to the new class was informative and

engaging.

pace

- n. the speed at which someone or something moves, or the rate at which something happens or changessynonym: gait, rate, speed
- (1) at your own **pace**, (2) the runner's **pace**The economy is growing at a supercharged **pace**.

diffusion

- n. a spreading motion in multiple directionssynonym: dispersal, scattering, disbandment
- (1) the **diffusion** of knowledge, (2) **diffusion** of lightning Due to the **diffusion** of television and video, cinema theaters had a small audience.

oxygen

- the chemical element with the symbol O that is present in air and water and is necessary for people, animals, and plants to live
- (1) the hydrogen binds the oxygen, (2) lack of oxygen The passenger grabbed for the oxygen mask.

membrane

- n. a soft, thin layer that forms animal or vegetable tissuesynonym: tissue layer
- cell membranes, (2) nuclear membrane
 Loud noises might harm the fragile ear membrane.

manifestation

- a visible or tangible form of something, especially a particular sign of a disease or condition
 synonym: expression, embodiment, presentation
- (1) **manifestation** of a deeper problem, (2) **manifestation** of psychological stress

The **manifestation** of his anxiety was evident in his shaking hands.

interaction

n. the act of connecting with someone, mainly when working, playing, or spending time with themsynonym: dealings, exchange, relations

- (1) the **interaction** between man and his environment,
- (2) interaction among human beings

The **interaction** of the two groups is good for brainstorming.

cluster

 a group of similar things or people close together, often forming a distinct mass or unit

synonym: group, aggregation, array

(1) live in a **cluster**, (2) a **cluster** of stars

A **cluster** of grapes hung from the vine.

individual

- n. a single person or thing, as distinct from a groupsynonym: person, being, self
- (1) a private individual, (2) individual freedom

As an **individual**, he had the right to make his own decisions and live his life as he saw fit.

symbol

something visible that is used to represent something else

synonym: mark, character, insignia

(1) symbol color, (2) symbol for happiness

The dragon is considered a **symbol** of bravery.

mundane

adj. very ordinary and therefore lacking interest or excitement

synonym: ordinary, everyday, prosaic

(1) mundane affairs, (2) mundane objects

After returning from the war, he had a pretty **mundane** life.

petrol

 a flammable liquid made from petroleum that is used as a fuel in internal combustion engines, commonly known as gasoline in North America

synonym: gasoline, fuel, gas

(1) petrol station, (2) petrol engine

I must fill my car with **petrol** before going on a long road trip.

function

the purpose or use of an object, system, or process; a
 particular activity or operation that is designed to serve a

specific purpose; a mathematical concept that describes a relationship between two sets of values, called the input and output sets; (verb) to operate or work in a specific way, or to perform a particular task or purpose

synonym: purpose, mapping, job

(1) function properly, (2) immune function

The brain is an incredibly complex organ that controls the body's **function**.

degree

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

synonym: level, qualification, diploma

bachelor's degree, (2) degree centigrade
 she received her degree in psychology from the university.

infrastructure

 the basic systems, services, or features that are necessary for an organization or country, such as transport and power supplies

synonym: foundation, framework

(1) IT infrastructure, (2) infrastructure cost

Aging societies tend to require huge costs for **infrastructure** maintenance.

electrical

adj. relating to electricity

(1) an **electrical** storm, (2) degree in **electrical** engineering Actuators convert **electrical** pulses into motion.

integrate

v. to combine one thing with another so that they form a whole or work together; to accept equal participation for members of all races and ethnic groups

synonym: mix, merge, combine

(1) **integrate** into the existing system, (2) **integrate** both businesses

He found that it is difficult to **integrate** socially.

socioeconomic

adj. relating to the social and economic factors that shape an individual, group, or community, particularly in terms of income, occupation, education, and social class

synonym: social, economic, financial

(1) **socioeconomic** status, (2) **socioeconomic** issues The **socioeconomic** conditions of a country can significantly affect its political stability.

quantity

- n. the amount or number of something; magnitudesynonym: abundance, portion, amount
- (1) half **quantity**, (2) residual **quantity** In southward, the average annual water **quantity** increases.

analog

- adj. relating to or using signals or information represented by a continuous physical quantity such as spatial position, voltage, etc.
- (1) an **analog** watch, (2) digitization of **analog** sounds Mercury thermometers are a type of **analog** sensor.

communal

adj. belonging to or used by a group rather than individuals; for common use

synonym: collaborative, combined, collective

(1) **communal** swimming pool, (2) **communal** combination of funds

Communal elections were held in several European countries.

wage

- n. a particular amount of money that somebody earns, usually every week or every month, for work or services
 synonym: payment, compensation, salary
- (1) unpaid wages, (2) increase in the minimum wage. His wages continued to rise as his skills improved.

exponent

n. a person who supports and promotes a particular theory, idea, or scheme; a numerical expression usually written as a superscript that indicates the number of times a given number or expression is to be multiplied by itself

synonym: advocate, representative, exponent

(1) **exponent** function, (2) the **exponent** of the free market The CEO is an **exponent** of innovation and encourages employees to think outside the box.

patent

 a legal document that grants an inventor exclusive rights to their invention for a certain period of time; the invention or process for which a patent has been granted

synonym: copyright, trademark, license

(1) patent application, (2) patent law

The company has filed for a **patent** to protect its new invention.

influenza

 formal for flu) a highly contagious viral disease that causes fever, severe aching, and catarrh and often occurs in epidemics

synonym: grippe, flu

(1) an epidemic outbreak of **influenza**, (2) **influenza** B strain

The research institute allocated a lot of money to study the cause and prevention of **influenza**.

doubt

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

synonym: distrust, suspect, mistrust

(1) dispel **doubts**, (2) no **doubt** about the news **Doubt** is the start, not the end, of intelligence.

attract

- v. to draw or entice someone or something towards them through the qualities they have, especially positive ones synonym: lure, entice, draw in
- (1) **attract** attention, (2) **attract** customers

 The government is eager to **attract** international investment.

ugly

adj. unattractive in appearance; unpleasant to look at synonym: unattractive, unsightly, repulsive

(1) an ugly sound, (2) ugly building

The **ugly** truth was that he had been lying to her for months.

independence

- n. freedom from another's or others' control or influencesynonym: freedom, liberty, autonomy
- (1) financial **independence**, (2) **independence** ceremony There is nothing more valuable than **independence** and freedom.

structure

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

synonym: construction, architecture, establishment

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

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

sigmoid

adj. relating to or shaped like the letter "S" synonym: curved, bent, twisted

(1) sigmoid curve, (2) sigmoid artery

The doctor examined the **sigmoid** colon to check for any abnormalities.

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.

destine

v. to determine or set the course of something in advance, often in a way that seems predetermined or inevitable; to specify or choose someone or something for a

particular fate or outcome

synonym: ordain, doom, predestine

(1) **destine** us to meet again, (2) be **destined** to become a great artist

Some people believe that we are all **destined** for greatness.

collapse

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

synonym: tumble, spill, bankruptcy

(1) the stock market **collapsed**, (2) ready to **collapse**The roof finally **collapsed** after three days and three nights of heavy snowfall.

continuous

adj. occurring or existing without a pause or interruption synonym: ceaseless, regular, repeated

(1) **continuous** improvement, (2) a **continuous** row of warehouses

The heavy snow has been **continuous** since last morning.

cycle

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

synonym: revolution, rotation, bike

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

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

sustain

v. to supply enough of what somebody or something needs to survive or exist; to accept as valid

synonym: maintain, nurture, support

(1) **sustain** a good relationship with him, (2) **sustain** a wellness lifestyle

She struggled to **sustain** the children's reading habits.

innovate

- v. to introduce new methods, ideas, or products synonym: bring in, introduce, found
- (1) innovate a new method, (2) innovate the quality of his

life

Companies developing self-driving cars consistently **innovate** the emerging technologies.

treadmill

n. a piece of exercise equipment consisting of a moving belt on which the user walks, jogs, or runs in place; a monotonous, repetitive task or activity that feels like it is going nowhere, much like a person walking on a treadmill

synonym: exercise machine, routine

(1) **treadmill** workout, (2) nonstop **treadmill**I like to watch TV while running on the **treadmill** to pass the time.

accelerate

v. to make something faster or earlier; to cause to develop or progress more quickly

synonym: speed up, quicken, rev

- (1) **accelerate** a chemical reaction, (2) **accelerate** the car The government tried to **accelerate** the commercialization of this development.
- the most important facts, ideas, or events from which something is developed; the way how things are organized or arranged

synonym: foundation, base, ground

on an equal basis,
 basis for calculation
 evidence will form the basis for our discussion.

asset

basis

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

synonym: aid, resource, equity

(1) frozen **assets**, (2) liquid **assets** of the company A sense of humor is an invaluable **asset** in this job.

denote

v. to indicate or represent something; to serve as a symbol or sign of something; to express or designate a meaning or concept

acriote

synonym: indicate, signify, represent

(1) denote meaning, (2) denote a negative affectThe symbol on the map denotes the location of the city.

employee

- n. a person who is hired to work for a business or organization in exchange for wages or salary; a worker synonym: worker, staff, personnel
- (1) **employee** benefits, (2) **employee** evaluation The **employee** handbook outlines the rules and regulations that all employees must follow.

fluctuation

- n. a change, or the process of changing, that frequently happens, especially from one extreme to another; the quality of being unsteady and subject to changes
- synonym: change, instability, flux
- (1) price **fluctuations**, (2) **fluctuation** of water level Temperature **fluctuations** are often milder in oceanfront areas.

indicate

v. to show, point out, or make known something, often through a sign or a symbol; to suggest or imply something without stating it directly

synonym: hint, suggest, show

(1) **indicate** a preference, (2) **indicate** an error The data **indicates** that the company's profits have steadily increased over the past quarter.

interpretation

 an explanation or opinion of something, especially that is not immediately obvious

synonym: rendering, explanation, understanding

(1) the **interpretation** of history, (2) open to **interpretation** His **interpretations** of literary works are often unique.

bureaucracy

 a system of government in which most of the important decisions are made by state officials rather than by elected representatives

synonym: administration, government, system

(1) government **bureaucracy**, (2) arbitrary **bureaucracy**The bumbling **bureaucracy** made it difficult to get the permits we needed.

administer

 to oversee and control the operation or arrangement of something

synonym: allocate, distribute, dispense

(1) **administer** justice, (2) **administer** the funds After the accident, three governmental bodies **administer** the company.

cheat

v. to act dishonestly or unfairly to gain an advantage or to deceive someone; to break the rules or laws

synonym: deceive, swindle, defraud

(1) **cheat** on my taxes, (2) **cheat** in a game Even though he knew it was wrong, he **cheated** on the exam.

spectrum

 an ordered array of colors into which a light beam can be split

synonym: range, scale, spread

(1) a broad **spectrum** of opinion, (2) infrared **spectrum** This device displayed the speech **spectrum** spectrographically.

Session 2: Spelling

١.	a lir equation	adj.	of, relating to, or consisting of lines or
			length; able to be expressed as a
			straight line, especially on a graph

- a single person or thing, as distinct from n. a group
 - the income that a government receives n. from taxes or that a company earns from its business
 - a set of computer programs and n. associated documentation and data for doing particular computational jobs
 - adj. stated clearly and in detail, leaving no room for confusion or doubt
 - a complex and highly organized society that has developed over time and has a dominant culture, including features such as language, religion, government, technology, and social customs
 - adj. worthy of attention because unusual or special
 - the introduction of harmful substances n. or waste into the natural environment that causes adverse change
 - a fundamental law or truth that explains n. or controls how something happens or works

a private ind____al 2.

3. annual re____e

so____re architect 4.

ex____it content 5.

lost civ____ion 6.

the rem____le breadth of 7. knowledge

8. environmental po____on

9. pr le in business

ANSWERS: 1. linear, 2. individual, 3. revenue, 4. software, 5. explicit, 6. civilization, 7. remarkable, 8. pollution, 9. principle

10. oxyg	en am	n.	the smallest unit of ordinary matter that forms a chemical element, composed of a nucleus and one or more electrons bound to the nucleus
11. bach	nelor's dee	n.	a unit of measurement for angles, temperature, or level of proficiency or achievement; a rank or level of academic or professional attainment
12. met_	sm enzyme	n.	the set of chemical reactions in cells or organisms that are necessary for life-sustaining
13. ur	ze transportation systems	ν.	to make an area more urban in character or nature, often through the development and expansion of cities or towns
14. phy_	gy research	n.	the branch of the biological sciences dealing with the functioning of organisms
15. ex	_d a lineup	<i>v</i> .	to increase or to make something greater in size, number, or importance
16. aero	bic orsm	n.	a tiny living thing
17. su	e a blizzard	<i>v</i> .	to live or exist despite a dangerous event or period
18. pr	t the future	<i>v</i> .	to state beforehand that something will happen in the future, mainly based on knowledge or experience
19. the r	egty of his breathing	n.	the quality or state of being done often; conformity to a set of rules, standards, or expectations; the state of occurring with a consistent or predictable pattern or frequency

ANSWERS: 10. atom, 11. degree, 12. metabolism, 13. urbanize, 14. physiology, 15. expand, 16. organism, 17. survive, 18. predict, 19. regularity

ANSWERS: 20. destine, 21. membrane, 22. physiological, 23. slightly, 24. thrust, 25. steep, 26. bust, 27. astonishing, 28. petrol, 29. innovation

n.

29. cutting-edge inn on

the creation of a new device or process

resulting from study and

experimentation

30.	crve writing	adj.	relating to or involving the use of skill and original and unusual ideas to create something
31.	syl color	n.	something visible that is used to represent something else
32.	cont a global warming	v.	to face, meet or deal with a problem or difficult situation or person
33.	accte the car	v.	to make something faster or earlier; to cause to develop or progress more quickly
34.	residual quty	n.	the amount or number of something; magnitude
35.	chaotic envnt	n.	the natural world such as air, water, and land in which humans, animals, and plants live
36.	nonstop trII	n.	a piece of exercise equipment consisting of a moving belt on which the user walks, jogs, or runs in place; a monotonous, repetitive task or activity that feels like it is going nowhere, much like a person walking on a treadmill
37.	the hydrogen binds the oxn	n.	the chemical element with the symbol C that is present in air and water and is necessary for people, animals, and plants to live
38.	dee meaning	v.	to indicate or represent something; to serve as a symbol or sign of something; to express or designate a meaning or concept

ANSWERS: 30. creative, 31. symbol, 32. confront, 33. accelerate, 34. quantity, 35. environment, 36. treadmill, 37. oxygen, 38. denote

39.	phycal activity	adj.	relating to the normal functioning of living organisms and their organs and systems; concerning the physical or biochemical processes and activities that occur within the body
40.	natural pheon	n.	something that exists and can be perceptible, especially one that is not fully understood
41.	stp discount	adj.	having a sharp inclination or slope
42.	an abrupt sle	n.	a surface with one end or side that is higher than the other
43.	the frrk of a house	n.	the structural components of a building or object that support its weight and give it form; the underlying structure of a system, concept, or text
44.	refined simty	n.	the quality or condition of being natural and plain or easy to understand or do
45.	a une teacher	adj.	being the only one of its kind; unlike anything else
46.	on a qut for happiness	n.	a long or challenging search for something
47.	exit instructions	adj.	stated clearly and in detail, leaving no room for confusion or doubt
48.	connt on business activity	n.	a limit or restriction on something, such as an action, behavior, or thought
49.	mullar life	adj.	characterized by the presence of multiple or many cells, as opposed to unicellular (having only one cell)

ANSWERS: 39. physiological, 40. phenomenon, 41. steep, 42. slope, 43. framework, 44. simplicity, 45. unique, 46. quest, 47. explicit, 48. constraint, 49. multicellular

50.	non-urbion area	n.	the process of population growth and physical expansion of cities, often involving increased migration from rural areas and the development of urban infrastructure and culture
51.	a stht line	adj.	extending or moving in one direction without bending or curving; having no deviations
52.	expal growth	adj.	becoming more and more rapid; of or involving mathematical exponents
53.	cay layer	n.	a covering, typically of fabric, supported on poles or suspended above a bed, throne, or other object, used to shelter or screen the person or object below it
54.	rag dl	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
55.	a clr of stars	n.	a group of similar things or people close together, often forming a distinct mass or unit
56.	inte into the existing system	ν.	to combine one thing with another so that they form a whole or work together; to accept equal participation for members of all races and ethnic groups
57.	dote over the weak	<i>v</i> .	to have or control a lot of power and influence over somebody or something
58.	foe challenges	v.	to perceive or predict; to anticipate or expect something to happen in the future

ANSWERS: 50. urbanization, 51. straight, 52. exponential, 53. canopy, 54. doll, 55. cluster, 56. integrate, 57. dominate, 58. foresee

59.	photon refon	n.	the act of thinking deeply about something, or the ability to think deeply; the image of something that is seen in a mirror or other reflective surface
60.	tsi warning	n.	a huge ocean wave caused by an earthquake, volcano, or other disturbance
61.	evon theory	n.	a gradual process of transformation of living things
62.	envnt affairs	n.	the natural world such as air, water, and land in which humans, animals, and plants live
63.	intlar compartment	adj.	existing or occurring within the cells of an organism or structure; situated or taking place within the boundaries of a cell
64.	desly anxious	adv.	in a way that shows a lack of hope and a willingness to do anything because of the problematic situation; with great urgency
65.	manage my fies	n.	the management of money, credit, banking, and investments, especially by a government or commercial organization; the branch of economics that studies the management of money and other assets
66.	human evon	n.	a gradual process of transformation of living things
67.	under a cay of smoke	n.	a covering, typically of fabric, supported on poles or suspended above a bed, throne, or other object, used to shelter or screen the person or object below it

ANSWERS: 59. reflection, 60. tsunami, 61. evolution, 62. environment, 63. intracellular, 64. desperately, 65. finance, 66. evolution, 67. canopy

to put something, usually a sharp 68. st kakey in a lock ν. object, into something; to restrict yourself to doing or using one certain thing and not change; (noun) a thin piece of wood or other material to put something, usually a sharp 69. fire st k ν. object, into something; to restrict yourself to doing or using one certain thing and not change; (noun) a thin piece of wood or other material 70. qua____ble results adj. able to be measured, expressed, or quantified in numerical or statistical terms 71. electric cr___le furnace a vessel made of ceramic, metal, or other materials used for melting or fusing substances at high temperatures; a difficult or trying experience that tests one's character or resilience 72. wel ned objectives adj. having clear and precise boundaries or characteristics; distinctly outlined or delimited; easily understood or recognizable 73. ind____nce ceremony freedom from another's or others' n. control or influence 74. fi___e act the management of money, credit, banking, and investments, especially by a government or commercial organization; the branch of economics that studies the management of money and other assets

ANSWERS: 68. stick, 69. stick, 70. quantifiable, 71. crucible, 72. well-defined, 73. independence, 74. finance

75.	mue affairs	adj.	very ordinary and therefore lacking interest or excitement
76.	financial indnce	n.	freedom from another's or others' control or influence
77.	trusted coe	n.	a close associate, friend, or companion, especially one who shares one's interests, beliefs, or political convictions; a fellow member of an organization, especially a military or political group, who shares a common cause or objective
78.	meor for death	n.	a figure of speech in which an expression is used to refer to something that it does not denote to suggest a similarity
79.	lower infant moty	n.	the quality or state of being subject to death
80.	end of the first qur	n.	one of four equal parts; a fourth part or portion
81.	on an equal bas	n.	the most important facts, ideas, or events from which something is developed; the way how things are organized or arranged
82.	yield cue	n.	a bend or angle in a line or surface that deviates from a straight or flat path; a gradual or smooth change in direction or shape
83.	matcs competition	n.	the science dealing with the logic of quantities, shapes, spaces, and arrangement

ANSWERS: 75. mundane, 76. independence, 77. comrade, 78. metaphor, 79. mortality, 80. quarter, 81. basis, 82. curve, 83. mathematics

84. r__y entirely on him

v. to require a specific thing or the assistance and support of someone or something to continue, run properly, or succeed.

85. human phy____gy

 the branch of the biological sciences dealing with the functioning of organisms

86. 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.

87. 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
- 88. a person of di___e talents
- adj. including numerous categories of individuals or entities; various

89. a gr_h sample

- n. a picture consisting of a line, lines, points, etc., that shows how two or more sets of certain quantities are related to each other
- 90. in____te the quality of his life
- v. to introduce new methods, ideas, or products

91. dy___cs of economy

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

ANSWERS: 84. rely, 85. physiology, 86. gene, 87. develop, 88. diverse, 89. graph, 90. innovate, 91. dynamics

92. sy I for happiness something visible that is used to n. represent something else a system of government in which most 93. arbitrary bur____cy n. of the important decisions are made by state officials rather than by elected representatives 94. strict time con____nts a limit or restriction on something, such n. as an action, behavior, or thought 95. an I on the trail a mound or hill made by a colony of ants, often as a nest or shelter, which can vary in size and shape depending on the species of ant and the surrounding environment to move along very quickly; (noun) the 96. z m lens ν. act of rising upward into the air an interval during which a recurring 97. go to the workplace by cy_e n. sequence of events occurs; a bicycle or motorcycle the way of construction of something 98. st re and function of the brain n. and the arrangement of its parts, or a complex thing constructed of many parts 99. frozen as ts something or someone that is useful or n. valuable quality, skill, etc.; valuable property 100. adm____er justice to oversee and control the operation or arrangement of something 101. si d artery adj. relating to or shaped like the letter "S" a specialized role or position that a 102. ni e market n. species occupies within an ecosystem; a job or position particularly well suited to the person who occupies it

ANSWERS: 92. symbol, 93. bureaucracy, 94. constraint, 95. anthill, 96. zoom, 97. cycle, 98. structure, 99. asset, 100. administer, 101. sigmoid, 102. niche

103. trIl workout	n.	a piece of exercise equipment consisting of a moving belt on which the user walks, jogs, or runs in place; a monotonous, repetitive task or activity that feels like it is going nowhere, much like a person walking on a treadmill
104. group of orsms	n.	a tiny living thing
105. ecy 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
106. infure cost	n.	the basic systems, services, or features that are necessary for an organization or country, such as transport and power supplies
107. the qut for truth	n.	a long or challenging search for something
108. expal function	adj.	becoming more and more rapid; of or involving mathematical exponents
109. a broad spum of opinion	n.	an ordered array of colors into which a light beam can be split
110. lir trend	adj.	of, relating to, or consisting of lines or length; able to be expressed as a straight line, especially on a graph
111. unal life	adj.	existing or affecting everywhere or everyone

ANSWERS: 103. treadmill, 104. organism, 105. economy, 106. infrastructure, 107. quest, 108. exponential, 109. spectrum, 110. linear, 111. universal

the speed at which someone or 112. the runner's pe n. something moves, or the rate at which something happens or changes 113. the af___ed part adj. influenced; feeling or showing emotion, especially exaggerated emotion; not natural or sincere any of the nine large celestial bodies 114. save the pl t n. that circle in the solar system; any celestial body that revolves around a star 115. co al combination of funds adj. belonging to or used by a group rather than individuals; for common use everything that exists, especially all 116. expansion of the un se n. physical matter, including planets, stars, galaxies, and all other forms of matter and energy a picture consisting of a line, lines, 117. gr h theory n. points, etc., that shows how two or more sets of certain quantities are related to each other 118. a m s of molten rock a large amount of a substance with no definite shape or form; a large number of people or things grouped or crowded together 119. en___y calculation a scientific concept that is most commonly associated with a state of disorder, randomness, or uncertainty 120. tr____te a document into English to convert or change words into another ν. language

ANSWERS: 112. pace, 113. affected, 114. planet, 115. communal, 116. universe, 117. graph, 118. mass, 119. entropy, 120. translate

121. anl colony	n.	a mound or hill made by a colony of ants, often as a nest or shelter, which can vary in size and shape depending on the species of ant and the surrounding environment
122. foe the consequences	ν.	to perceive or predict; to anticipate or expect something to happen in the future
123. emee benefits	n.	a person who is hired to work for a business or organization in exchange for wages or salary; a worker
124. coal swimming pool	adj.	belonging to or used by a group rather than individuals; for common use
125. the stock market cosed	ν.	to fall down or give way suddenly, often after breaking apart
126. an ang watch	adj.	relating to or using signals or information represented by a continuous physical quantity such as spatial position, voltage, etc.
127. learning cue	n.	a bend or angle in a line or surface that deviates from a straight or flat path; a gradual or smooth change in direction or shape
128. inte a preference	ν.	to show, point out, or make known something, often through a sign or a symbol; to suggest or imply something without stating it directly
129. live in a clr	n.	a group of similar things or people close together, often forming a distinct mass or unit

ANSWERS: 121. anthill, 122. foresee, 123. employee, 124. communal, 125. collapse, 126. analog, 127. curve, 128. indicate, 129. cluster

130. manion of a deeper problem	n.	a visible or tangible form of something, especially a particular sign of a disease or condition
131. a suy execution	n.	a brief statement that provides the critical aspects of something without going into depth
132. reze talent	v.	to acknowledge or realize something or someone; to identify, remember, or become aware of something that was previously known or encountered
133. marine ecem	n.	all the plants and living creatures in an area and the way they affect each other and the environment
134. an urt telegram	adj.	requiring immediate attention or action; pressing
135. cultural pagm	n.	a standard or typical example of something; a pattern or model
136. une design	adj.	being the only one of its kind; unlike anything else
137. gloomy preons	n.	the act of predicting the future by reasoning; a statement made about the future
138. inte a new method	ν.	to introduce new methods, ideas, or products
139. ready to cose	ν.	to fall down or give way suddenly, often after breaking apart
140. socmic issues	adj.	relating to the social and economic factors that shape an individual, group, or community, particularly in terms of income, occupation, education, and social class

ANSWERS: 130. manifestation, 131. summary, 132. recognize, 133. ecosystem, 134. urgent, 135. paradigm, 136. unique, 137. prediction, 138. innovate, 139. collapse, 140. socioeconomic

light beam can be split 142. IT inf____ure the basic systems, services, or features that are necessary for an organization or country, such as transport and power supplies a specialized role or position that a 143. every ni e of society n. species occupies within an ecosystem; a job or position particularly well suited to the person who occupies it 144. a ro___t appetite adj. sturdy and healthy in form, constitution, or construction; strong enough to withstand or overcome intellectual challenges or adversity 145. co___nt the issue to face, meet or deal with a problem or difficult situation or person 146. a good grounding in mat____cs the science dealing with the logic of n. quantities, shapes, spaces, and arrangement 147. liquid as ts of the company something or someone that is useful or n. valuable quality, skill, etc.; valuable property 148. g__e cloning the fundamental unit of heredity and the n. sequence of nucleotides in DNA that codes for the creation of RNA or protein. 149. an epidemic outbreak of in za (formal for flu) a highly contagious viral

ANSWERS: 141. spectrum, 142. infrastructure, 143. niche, 144. robust, 145. confront, 146. mathematics, 147. asset, 148. gene, 149. influenza

epidemics

disease that causes fever, severe

aching, and catarrh and often occurs in

150. att attention	<i>v</i> .	to draw or entice someone or something towards them through the qualities they have, especially positive ones
151. sun a good relationship with him	ν.	to supply enough of what somebody or something needs to survive or exist; to accept as valid
152. a life of simty	n.	the quality or condition of being natural and plain or easy to understand or do
153. a neve number	adj.	having the quality of something bad or harmful; expressing refusal
154. admer the funds	<i>v</i> .	to oversee and control the operation or arrangement of something
155. bt my leg	v.	to break something; (noun) a woman's chest, or the measurement around a woman's chest; (noun) an occasion for something excessive, such as work, eating, drinking, etc.
156. refon question	n.	the act of thinking deeply about something, or the ability to think deeply; the image of something that is seen in a mirror or other reflective surface
157. innon leader	n.	the creation of a new device or process resulting from study and experimentation
158. a suy of the conclusions	n.	a brief statement that provides the critical aspects of something without going into depth
159. att customers	ν.	to draw or entice someone or something towards them through the qualities they have, especially positive ones

ANSWERS: 150. attract, 151. sustain, 152. simplicity, 153. negative, 154. administer, 155. bust, 156. reflection, 157. innovation, 158. summary, 159. attract

160. dis solutions	<i>v</i> .	to talk about or examine in detail through conversation or debate; to exchange ideas, opinions, or information on a particular topic
161. be deed to become a great artist	ν.	to determine or set the course of something in advance, often in a way that seems predetermined or inevitable; to specify or choose someone or something for a particular fate or outcome
162. dispel dots	n.	a feeling of being uncertain about something, especially about how good or accurate it is
163. intlar parasites	adj.	existing or occurring within the cells of an organism or structure; situated or taking place within the boundaries of a cell
164. inton among human beings	n.	the act of connecting with someone, mainly when working, playing, or spending time with them
165. heating suem	n.	a part or component of a larger system that performs a specific function or functions interdependent with other subsystems to accomplish the overall function of the larger system
166. digitization of ang sounds	adj.	relating to or using signals or information represented by a continuous physical quantity such as spatial position, voltage, etc.
167. whe watching	n.	a very large sea mammal that has a streamlined body and breathes through a blowhole on the head; a very large person; impressive in size or qualities

ANSWERS: 160. discuss, 161. destine, 162. doubt, 163. intracellular, 164. interaction, 165. subsystem, 166. analog, 167. whale

168. dote possession	<i>v</i> .	to have or control a lot of power and influence over somebody or something
169. a brh pipe	n.	a division of a tree or woody shrub that grows out from the trunk or a main stem; a division of some larger or more complex organization
170. civion decline	n.	a complex and highly organized society that has developed over time and has a dominant culture, including features such as language, religion, government, technology, and social customs
171. sue a plane crash	<i>v</i> .	to live or exist despite a dangerous event or period
172. the agricultural yield per caa	n.	a Latin word meaning "head," used to express the amount for each person; any head or headlike expansion on a structure, as on a bone
173. prle of treatment	n.	a fundamental law or truth that explains or controls how something happens or works
174. historical pheon	n.	something that exists and can be perceptible, especially one that is not fully understood
175. stht for two months	adj.	extending or moving in one direction without bending or curving; having no deviations
176. prove questions	adj.	arousing anger, interest, or another strong reaction, especially deliberately
177. immune fuon	n.	the purpose or use of an object, system, or process; a particular activity or operation that is designed to serve a specific purpose; a mathematical concept that describes a relationship between two sets of values, called the input and output sets; (verb) to operate or work in a specific way, or to perform a particular task or purpose

ANSWERS: 168. dominate, 169. branch, 170. civilization, 171. survive, 172. capita, 173. principle, 174. phenomenon, 175. straight, 176. provocative, 177. function

178. die control	n.	a disorder or illness that affects the body or mind, often characterized by specific symptoms or abnormal functioning of organs or systems
179. a buh of trees	n.	a grouping of several similar things which are growing or fastened together
180. dl nationality	adj.	having two parts, aspects, or elements
181. atomic bbs	n.	a weapon that explodes and is used to kill or injure people or to cause damage to something
182. conle emergency	adj.	imaginable or possible to understand or believe in the mind
183. pat law	n.	a legal document that grants an inventor exclusive rights to their invention for a certain period of time; the invention or process for which a patent has been granted
184. visual meor	n.	a figure of speech in which an expression is used to refer to something that it does not denote to suggest a similarity
185. mat attraction	n.	an object or substance that can attract certain materials, such as iron or steel
186. plt 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
187. cause cirry failure shock	adj.	relating to the system that moves blood through the body, which includes the heart, arteries, and veins

ANSWERS: 178. disease, 179. bunch, 180. dual, 181. bomb, 182. conceivable, 183. patent, 184. metaphor, 185. magnet, 186. planet, 187. circulatory

ANSWERS: 188. aspect, 189. mortality, 190. statistics, 191. recognize, 192. variable, 193. structure, 194. accelerate, 195. introduction, 196. bomb

n.

to something

196. disarm the b__b

a weapon that explodes and is used to

kill or injure people or to cause damage

197. roy speaking	adv.	approximately but not precisely; with a violent manner
198. fuon properly	n.	the purpose or use of an object, system, or process; a particular activity or operation that is designed to serve a specific purpose; a mathematical concept that describes a relationship between two sets of values, called the input and output sets; (verb) to operate or work in a specific way, or to perform a particular task or purpose
199. scle solution	adj.	capable of being easily expanded or increased in size, number, or scale to meet changing demands
200. manion of psychological stress	n.	a visible or tangible form of something, especially a particular sign of a disease or condition
201. remle achievement	adj.	worthy of attention because unusual or special
202. extary ability	adj.	exceptional, unexpected, very unusual; surpassing the ordinary or usual
203. brh office	n.	a division of a tree or woody shrub that grows out from the trunk or a main stem; a division of some larger or more complex organization
204. susle alternative fuel	adj.	able to continue or be continued for a long time
205. coin information flow	v.	to restrict or limit someone or something's freedom or ability to do something

ANSWERS: 197. roughly, 198. function, 199. scalable, 200. manifestation, 201. remarkable, 202. extraordinary, 203. branch, 204. sustainable, 205. constrain

206. inor lamp	n.	something that shows or points out what a situation is like or how a situation is changing
207. cht in a game	v.	to act dishonestly or unfairly to gain an advantage or to deceive someone; to break the rules or laws
208. comty theory	n.	the state or quality of being complicated or intricate and difficult to understand
209. the intion of history	n.	an explanation or opinion of something, especially that is not immediately obvious
210. indal freedom	n.	a single person or thing, as distinct from a group
211. gec version	adj.	not specific; not linked to a particular brand or product
212. dynamically scle	adj.	capable of being easily expanded or increased in size, number, or scale to meet changing demands
213. dion of lightning	n.	a spreading motion in multiple directions
214. emee evaluation	n.	a person who is hired to work for a business or organization in exchange for wages or salary; a worker
215. no dot about the news	n.	a feeling of being uncertain about something, especially about how good or accurate it is
216. vam cleaner	n.	a space empty of matter; a device or tool used for cleaning or removing debris by creating suction

ANSWERS: 206. indicator, 207. cheat, 208. complexity, 209. interpretation, 210. individual, 211. generic, 212. scalable, 213. diffusion, 214. employee, 215. doubt, 216. vacuum

217. vam packing	n.	a space empty of matter; a device or tool used for cleaning or removing debris by creating suction
218. lack of oxn	n.	the chemical element with the symbol O that is present in air and water and is necessary for people, animals, and plants to live
219. hay decent job	adj.	in or at a point midway or an equal distance between two points
220. hay through my journey	adj.	in or at a point midway or an equal distance between two points
221. ch_t on my taxes	ν.	to act dishonestly or unfairly to gain an advantage or to deceive someone; to break the rules or laws
222. a hard and rent steel	adj.	able to withstand or recover quickly from difficult conditions
223. government burcy	n.	a system of government in which most of the important decisions are made by state officials rather than by elected representatives
224. dee a negative affect	ν.	to indicate or represent something; to serve as a symbol or sign of something; to express or designate a meaning or concept
225. illte a key point	<i>v</i> .	to provide pictures, photographs, diagrams, etc. in a book or something for explanation
226. conle way	adj.	imaginable or possible to understand or believe in the mind

ANSWERS: 217. vacuum, 218. oxygen, 219. halfway, 220. halfway, 221. cheat, 222. resilient, 223. bureaucracy, 224. denote, 225. illustrate, 226. conceivable

227. an undng motive	adj.	significant as a cause or basis of something but not immediately apparent or stated clearly
228. orn of information	n.	the first existence or beginning of something
229. ry on convenience stores	v.	to require a specific thing or the assistance and support of someone or something to continue, run properly, or succeed.
230. price fluons	n.	a change, or the process of changing, that frequently happens, especially from one extreme to another; the quality of being unsteady and subject to changes
231. cell and molecular biy	n.	the scientific study of life and the natural processes of living things
232. die backgrounds	adj.	including numerous categories of individuals or entities; various
233. a cirry disease	adj.	relating to the system that moves blood through the body, which includes the heart, arteries, and veins
234. at your own pe	n.	the speed at which someone or something moves, or the rate at which something happens or changes
235. increase in the minimum we	n.	a particular amount of money that somebody earns, usually every week or every month, for work or services
236. slide down a sle on a ski	n.	a surface with one end or side that is higher than the other
237. pat application	n.	a legal document that grants an inventor exclusive rights to their invention for a certain period of time; the invention or process for which a patent has been granted

ANSWERS: 227. underlying, 228. origin, 229. rely, 230. fluctuation, 231. biology, 232. diverse, 233. circulatory, 234. pace, 235. wage, 236. slope, 237. patent

238. peI station	n.	a flammable liquid made from petroleum that is used as a fuel in internal combustion engines, commonly known as gasoline in North America
239. a sort of maI	n.	any animal of which the female gives birth to live young, not eggs, and feeds her young on milk from her own body
240. a bull whe	n.	a very large sea mammal that has a streamlined body and breathes through a blowhole on the head; a very large person; impressive in size or qualities
241. per caa sales	n.	a Latin word meaning "head," used to express the amount for each person; any head or headlike expansion on a structure, as on a bone
242. a conus row of warehouses	adj.	occurring or existing without a pause or interruption
243. copyrighted sore	n.	a set of computer programs and associated documentation and data for doing particular computational jobs
244. roy explain my idea	adv.	approximately but not precisely; with a violent manner
245. high levels of air poon	n.	the introduction of harmful substances or waste into the natural environment that causes adverse change
246. exnt function	n.	a person who supports and promotes a particular theory, idea, or scheme; a numerical expression usually written as a superscript that indicates the number of times a given number or expression is to be multiplied by itself

ANSWERS: 238. petrol, 239. mammal, 240. whale, 241. capita, 242. continuous, 243. software, 244. roughly, 245. pollution, 246. exponent

247. bas for calculation	n.	the most important facts, ideas, or events from which something is developed; the way how things are organized or arranged
248. the inton between man a his environment	and <i>n</i> .	the act of connecting with someone, mainly when working, playing, or spending time with them
249. dl purpose	adj.	having two parts, aspects, or elements
250. agricultural orgion	n.	a group of people who work together for a shared purpose
251. intion education	n.	a preliminary explanation or remarks given before the start of a text, performance, or event; the act of bringing something new into existence or introducing something to a wider audience or new market
252. eve over the past decade	ν.	to develop gradually, or to cause the development of something or someone gradually
253. legal frrk	n.	the structural components of a building or object that support its weight and give it form; the underlying structure of a system, concept, or text
254. make astng gains	adj.	surprising or shocking; difficult to believe
255. an undng cause of an accident	adj.	significant as a cause or basis of something but not immediately apparen or stated clearly
256. sun a wellness lifestyle	ν.	to supply enough of what somebody or something needs to survive or exist; to accept as valid

ANSWERS: 247. basis, 248. interaction, 249. dual, 250. organization, 251. introduction, 252. evolve, 253. framework, 254. astonishing, 255. underlying, 256. sustain

258. a bu h of schoolgirls

259. ec___y of scale

260. an u__y sound

261. di s options

262. control su em

263. co____e in arms

- adj. sturdy and healthy in form, constitution, or construction; strong enough to withstand or overcome intellectual challenges or adversity
- n. a grouping of several similar things which are growing or fastened together
- 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
- adj. unattractive in appearance; unpleasant to look at
- v. to talk about or examine in detail through conversation or debate; to exchange ideas, opinions, or information on a particular topic
- n. a part or component of a larger system that performs a specific function or functions interdependent with other subsystems to accomplish the overall function of the larger system
- n. a close associate, friend, or companion, especially one who shares one's interests, beliefs, or political convictions; a fellow member of an organization, especially a military or political group, who shares a common cause or objective

ANSWERS: 257. robust, 258. bunch, 259. economy, 260. ugly, 261. discuss, 262. subsystem, 263. comrade

264.	eny conservation	n.	a scientific concept that is most commonly associated with a state of disorder, randomness, or uncertainty
265.	a prove smile	adj.	arousing anger, interest, or another strong reaction, especially deliberately
266.	principles of susle development	adj.	able to continue or be continued for a long time
267.	fluon of water level	n.	a change, or the process of changing, that frequently happens, especially from one extreme to another; the quality of being unsteady and subject to changes
268.	the cye of the seasons	n.	an interval during which a recurring sequence of events occurs; a bicycle or motorcycle
269.	fire crle	n.	a vessel made of ceramic, metal, or other materials used for melting or fusing substances at high temperatures; a difficult or trying experience that tests one's character or resilience
270.	tax ree	n.	the income that a government receives from taxes or that a company earns from its business
271.	eve	<i>v</i> .	to develop gradually, or to cause the development of something or someone gradually
272.	orgion chart	n.	a group of people who work together for a shared purpose
273.	majority of his weh	n.	a large amount of money, property, or other things that someone or an

ANSWERS: 264. entropy, 265. provocative, 266. sustainable, 267. fluctuation, 268. cycle, 269. crucible, 270. revenue, 271. evolve, 272. organization, 273. wealth

organization owns

2/4. stacs for cancer	n.	collection, organization, analysis, interpretation, and presentation of data
275. desly ill patient	adv.	in a way that shows a lack of hope and a willingness to do anything because of the problematic situation; with great urgency
276. exd agricultural output	<i>v</i> .	to increase or to make something greater in size, number, or importance
277. evolutionary biy	n.	the scientific study of life and the natural processes of living things
278. suce abuse problem	n.	the real physical material of which a thing or person consist; the most important or main part of some idea or experience; an illegal drug
279. a dependent vale	adj.	likely to change or vary often; (noun) a symbol, like x or y, that is used in mathematical or logical expressions to represent a value that may be changed
280. die prevention	n.	a disorder or illness that affects the body or mind, often characterized by specific symptoms or abnormal functioning of organs or systems
281. tsi relief	n.	a huge ocean wave caused by an earthquake, volcano, or other disturbance
282. principles of unal design	adj.	existing or affecting everywhere or everyone
283. nuclear mene	n.	a soft, thin layer that forms animal or vegetable tissue

ANSWERS: 274. statistics, 275. desperately, 276. expand, 277. biology, 278. substance, 279. variable, 280. disease, 281. tsunami, 282. universal, 283. membrane

284. mue objects	adj.	very ordinary and therefore lacking interest or excitement
285. socmic status	adj.	relating to the social and economic factors that shape an individual, group, or community, particularly in terms of income, occupation, education, and social class
286. nb with cold	adj.	unable to feel physical sensation and movement; not showing human feeling or sensitivity
287. make my preons	n.	the act of predicting the future by reasoning; a statement made about the future
288. the dion of knowledge	n.	a spreading motion in multiple directions
289. major pagm shift	n.	a standard or typical example of something; a pattern or model
290. illte a story	<i>v</i> .	to provide pictures, photographs, diagrams, etc. in a book or something for explanation
291. urbion process	n.	the process of population growth and physical expansion of cities, often involving increased migration from rural areas and the development of urban infrastructure and culture
292. barren of crve spirit	adj.	relating to or involving the use of skill and original and unusual ideas to create something
293. have a neve effect	adj.	having the quality of something bad or harmful; expressing refusal

ANSWERS: 284. mundane, 285. socioeconomic, 286. numb, 287. prediction, 288. diffusion, 289. paradigm, 290. illustrate, 291. urbanization, 292. creative, 293. negative

294. mullar tissues	adj.	characterized by the presence of multiple or many cells, as opposed to unicellular (having only one cell)
295. urze a region	v.	to make an area more urban in character or nature, often through the development and expansion of cities or towns
296. cognitive comty	n.	the state or quality of being complicated or intricate and difficult to understand
297. afed way of walking	adj.	influenced; feeling or showing emotion, especially exaggerated emotion; not natural or sincere
298. sid curve	adj.	relating to or shaped like the letter "S"
299. rent population	adj.	able to withstand or recover quickly from difficult conditions
300. permanent mat	n.	an object or substance that can attract certain materials, such as iron or steel
301. theory of the unse	n.	everything that exists, especially all physical matter, including planets, stars galaxies, and all other forms of matter and energy
302. non-quable risk	adj.	able to be measured, expressed, or quantified in numerical or statistical terms
303. pt a revolution	n.	a secret plan or scheme to achieve a specific goal; the plan or main story of a literary work; (verb) to plan secretly, usually something illegal
304. increase slly	adv.	in a small degree or extent; a little

ANSWERS: 294. multicellular, 295. urbanize, 296. complexity, 297. affected, 298. sigmoid, 299. resilient, 300. magnet, 301. universe, 302. quantifiable, 303. plot, 304. slightly

305. performance inors	n.	something that shows or points out what a situation is like or how a situation is changing
306. conus improvement	adj.	occurring or existing without a pause or interruption
307. change the ecem	n.	all the plants and living creatures in an area and the way they affect each other and the environment
308. inza B strain	n.	(formal for flu) a highly contagious viral disease that causes fever, severe aching, and catarrh and often occurs in epidemics
309. the exnt of the free market	n.	a person who supports and promotes a particular theory, idea, or scheme; a numerical expression usually written as a superscript that indicates the number of times a given number or expression is to be multiplied by itself
310. inte an error	<i>v</i> .	to show, point out, or make known something, often through a sign or a symbol; to suggest or imply something without stating it directly
311. pt twist	n.	a secret plan or scheme to achieve a specific goal; the plan or main story of a literary work; (verb) to plan secretly, usually something illegal
312. extary weather	adj.	exceptional, unexpected, very unusual; surpassing the ordinary or usual
313. dee centigrade	n.	a unit of measurement for angles, temperature, or level of proficiency or achievement; a rank or level of academic or professional attainment

ANSWERS: 305. indicator, 306. continuous, 307. ecosystem, 308. influenza, 309. exponent, 310. indicate, 311. plot, 312. extraordinary, 313. degree

<i>v</i> .	to push or drive forcibly; to impose or insert; (noun) the force used in pushing
adj.	not specific; not linked to a particular brand or product
n.	the first existence or beginning of something
ν.	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
n.	one part or feature of a situation, problem, subject, etc.
n.	an explanation or opinion of something, especially that is not immediately obvious
ν.	to combine one thing with another so that they form a whole or work together; to accept equal participation for members of all races and ethnic groups
adj.	requiring immediate attention or action; pressing
n.	any animal of which the female gives birth to live young, not eggs, and feeds her young on milk from her own body
n.	the set of chemical reactions in cells or organisms that are necessary for life-sustaining
	n. n. v. adj. n.

ANSWERS: 314. thrust, 315. generic, 316. origin, 317. develop, 318. aspect, 319. interpretation, 320. integrate, 321. urgent, 322. mammal, 323. metabolism

324. (degree in ele	_al engineering	adj.	relating to electricity
325. _l	olastic dl		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
326. _l	ort when she	will arrive	v.	to state beforehand that something will happen in the future, mainly based on knowledge or experience
327. \	welned terr	ns	adj.	having clear and precise boundaries or characteristics; distinctly outlined or delimited; easily understood or recognizable
328. (critical ms		n.	a large amount of a substance with no definite shape or form; a large number of people or things grouped or crowded together
329. a	a nb mind		adj.	unable to feel physical sensation and movement; not showing human feeling or sensitivity
330. a	an explosive su	ce	n.	the real physical material of which a thing or person consist; the most important or main part of some idea or experience; an illegal drug
331. :	sleep regty		n.	the quality or state of being done often conformity to a set of rules, standards, or expectations; the state of occurring with a consistent or predictable pattern or frequency
332. l	nalf quty		n.	the amount or number of something; magnitude

ANSWERS: 324. electrical, 325. doll, 326. predict, 327. well-defined, 328. mass, 329. numb, 330. substance, 331. regularity, 332. quantity

to move along very quickly; (noun) the 333. z m in on a photo ν. act of rising upward into the air 334. material we___h a large amount of money, property, or n. other things that someone or an organization owns 335. an ele____al storm adj. relating to electricity 336. tr____te the emotion to a to convert or change words into another ν. language movement 337. unpaid w__es a particular amount of money that n. somebody earns, usually every week or every month, for work or services adj. unattractive in appearance; unpleasant 338. u__y building to look at one of four equal parts; a fourth part or 339. a qu r mile portion 340. dy cs of group the branch of mechanics that deals with the motion of bodies under the action of forces, including the particular case in which a body remains at rest; forces that produce or stimulate movement, growth, or change 341. neutral hydrogen a ms the smallest unit of ordinary matter that n. forms a chemical element, composed of a nucleus and one or more electrons

ANSWERS: 333. zoom, 334. wealth, 335. electrical, 336. translate, 337. wage, 338. ugly, 339. quarter, 340. dynamics, 341. atom, 342. constrain

342. co____in his freedom

bound to the nucleus

something

to restrict or limit someone or

something's freedom or ability to do

Vocab-Builder Ref from	"Geoffrey West:	The surprising	math of cities	and corporations	TED Talk" (17	1 words)
ANSWERS:						

Session 3: Fill in the Blanks

1.	Babies heavily on others for food.
<i>v</i> .	to require a specific thing or the assistance and support of someone or something to continue, run properly, or succeed.
2.	The symbol on the map the location of the city.
ν.	to indicate or represent something; to serve as a symbol or sign of something; to express or designate a meaning or concept
3.	The of the two groups is good for brainstorming.
n.	the act of connecting with someone, mainly when working, playing, or spending time with them
4.	The perspective of his right brain his consciousness.
<i>v</i> .	to have or control a lot of power and influence over somebody or something
5.	The of the argument was well-presented.
n.	the real physical material of which a thing or person consist; the most important or main part of some idea or experience; an illegal drug
6.	This laptop has a processor, making it fast and efficient.
adj	having two parts, aspects, or elements
7.	The set of instructions made it easy to assemble the furniture.
adj	having clear and precise boundaries or characteristics; distinctly outlined or delimited; easily understood or recognizable
8.	The ants were busy building an in the garden.
n.	a mound or hill made by a colony of ants, often as a nest or shelter, which can vary in size and shape depending on the species of ant and the surrounding environment
	SWERS: 1. rely, 2. denotes, 3. interaction, 4. dominates, 5. substance, 6. al-core, 7. well-defined, 8. anthill

ANSWERS: 9. bust, 10. biology, 11. evolution, 12. software, 13. innovate, 14. wealth,

15. phenomenon, 16. confront

17. l	My left arm became
adj.	unable to feel physical sensation and movement; not showing human feeling or sensitivity
18. I	His style frequently sparked controversies.
adj.	arousing anger, interest, or another strong reaction, especially deliberately
19. /	After the accident, three governmental bodies the company.
<i>v</i> .	to oversee and control the operation or arrangement of something
20	The budget forced them to make difficult decisions.
n.	a limit or restriction on something, such as an action, behavior, or thought
21. I	His of literary works are often unique.
n.	an explanation or opinion of something, especially that is not immediately obvious
22. ⁻	The computer's failed and caused the entire system to shut down.
n.	a part or component of a larger system that performs a specific function or functions interdependent with other subsystems to accomplish the overall function of the larger system
23. (One bad apple spoils the whole
n.	a grouping of several similar things which are growing or fastened together
24. ⁻	The dragon is considered a of bravery.
n.	something visible that is used to represent something else
25. ⁻	The truth was that he had been lying to her for months.
adj.	unattractive in appearance; unpleasant to look at
	WERS: 17. numb, 18. provocative, 19. administer, 20. constraint, 21. pretations, 22. subsystem, 23. bunch, 24. symbol, 25. ugly

41. The economy is growing at a supercharged
n. the speed at which someone or something moves, or the rate at which something happens or changes
42. The principle of every business was identical.
adj. significant as a cause or basis of something but not immediately apparent or stated clearly
43. The cliff made it difficult to climb.
adj. having a sharp inclination or slope
44. After returning from the war, he had a pretty life.
adj. very ordinary and therefore lacking interest or excitement
45. A is at the end of the book.
 a brief statement that provides the critical aspects of something without going into depth
46. The baby clung to her mother.
adv. in a way that shows a lack of hope and a willingness to do anything because of the problematic situation; with great urgency
47. The news of her sudden death was to everyone who knew her.
adj. surprising or shocking; difficult to believe
48. She struggled to the children's reading habits.
ν . to supply enough of what somebody or something needs to survive or exist; to accept as valid
ANSWERS: 41. pace, 42. underlying, 43. steep, 44. mundane, 45. summary, 46. desperately, 47. astonishing, 48. sustain

ANSWERS: 57. atom, 58. collapsed, 59. influenza, 60. generic, 61. quantity, 62. asset, 63. basis, 64. structure

civilizations, 70. membrane, 71. urgent, 72. infrastructure

ANSWERS: 80. affected, 81. Communal, 82. petrol, 83. constrained, 84. electrical, 85. vacuum, 86. universe, 87. economy

104.	The government should do more to support environmentally agriculture.
adj.	able to continue or be continued for a long time
105.	Since the second law of thermodynamics is applicable to the universe, the of the universe continues to increase.
n.	a scientific concept that is most commonly associated with a state of disorder, randomness, or uncertainty
106.	Rainfall in the tropics is highly
adj.	likely to change or vary often; (noun) a symbol, like x or y, that is used in mathematical or logical expressions to represent a value that may be changed
107.	Some countries have a culture of eating the flesh of a
n.	a very large sea mammal that has a streamlined body and breathes through a blowhole on the head; a very large person; impressive in size or qualities
108.	is the science of how living things work.
n.	the branch of the biological sciences dealing with the functioning of organisms
109.	A diversified plant species generally enhances beneficial populations
n.	a tiny living thing
110.	The of the tree had fallen and blocked the road.
n.	a division of a tree or woody shrub that grows out from the trunk or a main stem; a division of some larger or more complex organization
111.	Our company decided to hire an advisor who specializes in
n.	the management of money, credit, banking, and investments, especially by a government or commercial organization; the branch of economics that studies the management of money and other assets
	SWERS: 104. sustainable, 105. entropy, 106. variable, 107. whale, 108. siology, 109. organism, 110. branch, 111. finance

ANSWERS: 112. innovation, 113. organization, 114. recognize, 115. origin, 116. graph, 117. Translate, 118. unique, 119. urbanize

ANSWERS: 120. straight, 121. metabolism, 122. robust, 123. pollution, 124. paradigm, 125. niche, 126. stick, 127. circulatory

136. The movie had an sex scene that some viewers might find offensive. adj. stated clearly and in detail, leaving no room for confusion or doubt
137. New York is a city with a ethnic population. adj. including numerous categories of individuals or entities; various
138. These birds can only in temperate climates. v. to live or exist despite a dangerous event or period
139. The picture earned near acclaim from critics. adj. existing or affecting everywhere or everyone
 140. 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
141. The famous restaurant stands up the hill. adj. in or at a point midway or an equal distance between two points
142. The of his anxiety was evident in his shaking hands.n. a visible or tangible form of something, especially a particular sign of a disease or condition
143. Efficiency isn't an essential here; fairness is.n. a fundamental law or truth that explains or controls how something happens or works
144. The hut stands on the of a mountain. n. a surface with one end or side that is higher than the other
ANSWERS: 136. explicit, 137. diverse, 138. survive, 139. universal, 140. planet, 141 halfway, 142. manifestation, 143. principle, 144. slope

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physiological, 151. negative, 152. disease

ANSWERS: 153. sigmoid, 154. remarkable, 155. resilient, 156. develop, 157. treadmill, 158. roughly, 159. regularity, 160. cheated

ν.

break the rules or laws

to act dishonestly or unfairly to gain an advantage or to deceive someone; to

ANSWERS: 161. dynamics, 162. bureaucracy, 163. analog, 164. discuss, 165. exponential, 166. socioeconomic, 167. statistics