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Michael Hansmeyer: Building unimaginable shapes | TED Talk

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



All Words

IMPORTANT

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Session 1: Word List

architect

 a person whose job is to design plans to be used in making something, such as buildings

synonym: creator, designer, planner

(1) landscape **architect**, (2) **architect** of the peace accord The building **architect** tried to build the house above the tree.

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.

refer

v. to direct someone's attention, thoughts, or questions to another source or person; to mention, cite, or allude to something as evidence or support

synonym: cite, allude, mention

(1) refer to a book, (2) refer to a map

Please **refer** to the instruction manual for further assistance.

bias

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

synonym: inclination, partiality, predilection

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

socialism

She researched gender bias in politics.

preconceived

- adj. (of an idea or opinion) formed beforehand, especially without evidence for its truth or usefulness
- (1) a **preconceived** notion, (2) **preconceived** opinions We should start a discussion from scratch with no **preconceived** ideas.

unseen

- adj. not seen or noticed; not perceived synonym: invisible, hidden, undercover
- (1) unseen danger, (2) an unseen force
 The consequences of the pandemic remain unseen as scientists continue to research the virus.

intrigue

- v. to make someone interested, especially by being strange, unusual, or mysterious; to make a secret plan with other people to harm someone
- synonym: attract, captivate, charm
- intrigue him, (2) intrigue against his rival
 The artist's innovative style of work intrigues me.

delight

- n. a feeling of great pleasure or happinesssynonym: pleasure, joy, satisfaction
- (1) a tremor of **delight**, (2) with **delight**The **delight** on the child's faces when they received the toy was priceless.

propose

- v. to make a proposal, declare a plan for something synonym: suggest, offer, recommend
- (1) **propose** the amendment, (2) **propose** changes I want to **propose** a toast in honor of our longstanding relationship.

mimic

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

synonym:

mirror, imitate, ape

(1) **mimic** a human voice, (2) **mimic** numerous instruments He is very popular at school because he can **mimic** all the teachers' accents.

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.

process

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

synonym: procedure, method, system

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

abstract

adj. based on general ideas, feelings, or qualities and not on any a physical or concrete existence

synonym: conceptual, theoretical, ideational

(1) an abstract noun, (2) abstract science

The invention of the camera triggered the development of **abstract** painting.

morphogenesis

 n. the biological process of growth, development, and differentiation of cells, tissues, and organs to give rise to the complex three-dimensional structures of living organisms

synonym: development, growth, formation

(1) **morphogenesis** process, (2) cellular **morphogenesis** Defects in **morphogenesis** can lead to developmental abnormalities and congenital disabilities.

split

v. to divide, or to make something divide into two or more parts, especially along a particular line

synonym: break, divide, break apart

(1) **split** a bill, (2) **split** a reward equally

Companies often **split** their shares to lower the stock price and encourage investors to buy.

identical

adj. being the exact same one

synonym: duplicate, exact, analogous

(1) pair of **identical** twins, (2) an **identical** equation Infant formulas are nutritionally almost **identical** to a mother's breast milk.

distinct

adj. noticeable from something else of a similar type

synonym: different, special, characteristic

(1) **distinct** difference, (2) **distinct** from each other It is essential to keep these two issues **distinct**.

asymmetric

adj. lacking symmetry or balance; not corresponding in size,
 shape, or degree; characterized by an uneven or
 unequal distribution or arrangement

synonym: uneven, lopsided, unbalanced

(1) **asymmetric** warfare, (2) **asymmetric** information The **asymmetric** design of the building made it stand out in the city skyline.

division

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

synonym: branch, separator, section

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

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

simplify

v. to make something more straightforward, more understandable, or easier to do

synonym: streamline, clarify, elucidate

(1) simplify my life, (2) simplify the process

Please **simplify** your explanation for the children.

divide

- v. to separate or cause to separate into parts or groups synonym: separate, disconnect, split
- (1) **divide** the cake into two pieces, (2) **divide** money equally

Can you divide 123321 by eleven?

differentiate

v. to recognize or establish as being distinct; to distinguish between things that are compared; to calculate a derivative

synonym: discern, distinguish, separate

(1) **differentiate** between fact and fiction, (2) **differentiate** a function

The teacher asked the students to **differentiate** between the two similar species of birds.

astound

- v. to surprise or shock someone with wonder very much synonym: amaze, astonish, surprise
- (1) **astound** everyone, (2) **astound** the viewer The final result was nothing short of **astounding**.

dimension

 a measurable extent of a particular kind, such as width, height, or length

synonym: extent, measurement, size

(1) new **dimension**, (2) the crosswise **dimension**Overall **dimensions** are approximately 400x200mm.

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.

algorithm

n. a set of rules or rigorous instructions typically used to solve a specific problem or to perform a computationsynonym: logic, method, rule

(1) the RSA **algorithm**, (2) **algorithm** for image processing We can evaluate the performance of an **algorithm** in terms of computation time.

suddenly

adv. quickly and unexpectedly

synonym: abruptly, unexpectedly, unawares

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

variation

 the act or state of changing; a difference or change in the way something is done, made or said

synonym: fluctuation, change, variation

(1) **variation** of temperature, (2) gene **variation**There is a lot of **variation** in the colors of flowers in the garden.

volume

 the amount of space occupied by an object or substance; the magnitude of sound

synonym: capacity, amount, intensity

(1) **volume** of work, (2) high **volume**

This container has a **volume** of 10 cubic meters.

cube

 a three-dimensional shape with six square faces that are all equal in size; (of mathematics) the result of multiplying the number by itself three times

synonym: block, square, cell

(1) cube root, (2) ice cube

I cut the cheese into small **cubes** for the salad.

instance

- n. a particular example or single occurrence of somethingsynonym: example, sample, illustration
- (1) for instance, (2) notable instance

These articles cite five instances of climate change.

ratio

- n. the relative size or amount of one thing to another, typically expressed in the form of a fraction or decimal synonym: proportion, rate, quota
- (1) debt-to-income **ratio**, (2) **ratio** of boys to girls The **ratio** of water to sugar in the recipe is 1:2.

exert

- v. to put forth effort; to put into action; to bring into play synonym: exert, apply, use
- (1) exert control, (2) exert influenceHe exerted himself to lift the heavyweight.

specification

- n. a detailed description of the characteristics, features, or requirements of something, typically a product or system; a written statement that outlines the standards, procedures, or requirements for a project or job
- synonym: description, requirement, guideline
- (1) functional **specification**, (2) engineering **specification**The project's **specifications** outlined the goals and requirements for the team to complete.

essentially

- *adv.* relating to the essential features or concepts of anything *synonym*: fundamentally, basically, virtually
- (1) **essentially** correct, (2) become **essentially** same **Essentially**, a society is an organism.

sculpt

v. to create a work of art by carving, casting, or other shaping techniques

synonym: carve, mold, shape

(1) sculpt an image, (2) sculpt prototypeHe spent hours every day sculpting figures out of clay.

constraint

n. 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.

intersect

- v. to meet or cross one another
- synonym: cross, bisect, cut
- (1) **intersect** at a point, (2) railways **intersect** the country Her multidisciplinary works **intersect** music and picture with writing.

stretch

- v. to make or be capable of making anything longer or broader without hurting or breaking
- synonym: lengthen, prolong, extend
- (1) **stretch** along the coast, (2) **stretch** a story Some herds have been observed to **stretch** hundreds of kilometers.

expound

- v. to explain or clarify something in detail or with great care; to interpret or elucidate
- *synonym*: explain, clarify, interpret
- (1) **expound** theory, (2) **expound** on the subject The professor spent hours **expounding** on the complexities of quantum physics.

scope

- *n*. the range of one's perceptions, thoughts, or actions, or a subject that
- synonym: content, coverage, extent
- (1) **scope** of a project, (2) have broad **scope** The **scope** of human thought is diverse.

corresponding

- adj. similar to, connected with, or accompanying something, especially in position or purpose
- synonym: matching, equivalent, analogous
- (1) find a **corresponding** lack, (2) the **corresponding** word in Spanish

The **corresponding** number on the dial was 3.

geometric

adj. relating to or having the characteristics of geometry (= the shape, properties, and relations of points, lines, surfaces, solids)

synonym: mathematical, symmetrical, regular

(1) a **geometric** proof, (2) **geometric** pattern

The **geometric** shapes and patterns in the artwork are visually stunning.

equivalent

- n. having the same value, quality, meaning, purpose, etc.synonym: equal, counterpart, match
- (1) **equivalent** amounts, (2) **equivalent** in meaning
 The European Central Bank is Europe's **equivalent** of the
 Federal Reserve.

visible

adj. capable of being seen; or open to easy viewsynonym: clear, observable, seeable

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

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

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.

curvature

 the degree to which a line or surface deviates from being straight or flat; a measure of the amount of bending of a curve

synonym: bend, arch, bow

(1) the degree of **curvature**, (2) spinal **curvature**The **curvature** of the earth can be seen from space.

instantly

adv. immediately

synonym: immediately, right away, directly

(1) instantly cope with, (2) be killed instantly

I remembered that person **instantly** and never forgot.

articulate

v. to express oneself clearly and effectively in spoken or written language

synonym: express, state, utter

(1) **articulate** his position, (2) eloquently **articulate**She was able to **articulate** her argument in the debate clearly.

property

- n. a thing or things that belong to someonesynonym: belongings, possessions, equity
- (1) a man of **property**, (2) chemical **property**He stood to inherit a million-dollar **property**.

elaborate

 adj. containing a lot of carefully prepared and organized or many complicated and detailed parts

synonym: detailed, intricate, complicated

(1) an **elaborate** hat, (2) **elaborate** Ponzi scheme He proposed an **elaborate** program of public works.

minimal

- adj. tiny in amount; the least possible synonym: tiniest, essential, minimum
- (1) **minimal** effort, (2) **minimal** amount The process was carried out at **minimal** cost.

architecture

the art and science of designing and constructing buildings

synonym: design, structure, layout

(1) **architecture** design, (2) classic **architecture**The city is known for its impressive **architecture** and beautiful old buildings.

column

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

synonym: line, pillar, cue

(1) the spinal **column**, (2) a **column** of water The newspaper devoted several **columns** to the affair.

architectural

adj. of or relating to the design and construction of buildings and other structures and the features and style of such structures

synonym: structural, building, constructive

(1) study **architectural** engineering, (2) beautiful **architectural** landmarks

The **architectural** style of the building was a mix of modern and traditional.

archetype

 a very typical example of a certain person or thing; a recurrent symbol or motif in literature, art, or mythology that represents a universal pattern of human nature

synonym: prototype, model, paradigm

(1) **archetype** symbol, (2) feminine **archetype**The hero's journey is a common **archetype** in many myths and stories.

cylinder

- *n.* a solid or hollow geometric figure with two round ends and long straight sides, or an object shaped like this
- (1) a six- **cylinder** engine, (2) a ventilation **cylinder** The gas was trapped inside the **cylinders** under high pressure.

experiment

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

synonym: experimentation, investigation

experiment design, (2) series of experiments
 experiments showed highly positive results.

eventually

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

synonym: finally, someday, ultimately

(1) eventually become obsolete, (2) eventually succeed

The corporation **eventually** dominated the entire tobacco business.

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.

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.

feat

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

synonym: achievement, accomplishment, exploit

(1) intellectual feat, (2) feat accomplishment

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

discovery

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

synonym: finding, uncovering, detection

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

Her research team made an important discovery.

threshold

n. the floor or ground that forms the bottom of a doorway and offers support when passing through a doorway; the smallest detectable sensation

synonym: anteroom, brink, verge

(1) the **threshold** between rooms, (2) high pain **threshold** She's on the **threshold** of adulthood.

tradition

 a belief, custom, or way of doing something that has been passed down from generation to generation within a group or society

synonym: custom, practice, ritual

(1) a **tradition** of a culture, (2) against **tradition** It is a **tradition** in many families to have a big Thanksgiving dinner with all their relatives.

microscopic

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

synonym: infinitesimal, tiny, atomic

(1) **microscopic** inquiry, (2) **microscopic** analysis Inspectors noticed **microscopic** cracks in the submarine's hull.

sect

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

synonym: group, faction, cult

(1) sect beliefs, (2) secret sect

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

elevation

- n. the height of something above sea level or above the ground; the event of something being raised upwardsynonym: height, altitude, rise
- (1) at an **elevation** of 1000 feet, (2) **elevation** in rank

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

imaginable

adj. capable of being imaginedsynonym: conceivable, plausible, possible

(1) easily **imaginable**, (2) worst **imaginable** case This is the only **imaginable** strategy.

envision

v. to imagine or expect what a situation will be like in the future

synonym: anticipate, foresee, picture

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(1) **envision** the future, (2) **envision** the project's success We cannot **envision** her as President.

deterministic

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

synonym: predictable, predetermined, certain

(1) **deterministic** approach, (2) **deterministic** system The **deterministic** algorithm always produces the same result for a given input.

random

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

synonym: incidental, arbitrary, unanticipated

(1) a **random** choice, (2) bombs fell at **random**To find drunk drivers, police conduct **random** tests.

involve

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

synonym: implicate, include, engage

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

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

entirely

adv. completely

synonym: completely, fully, totally

(1) **entirely** satisfied with the meal, (2) he was **entirely** to blame

Later, his claim was found to be **entirely** false.

predictable

adj. capable of being known, seen or declared in advance *synonym*: foreseeable, expectable, likely

(1) **predictable** pattern, (2) in a **predictable** manner
The economy becomes more volatile and less **predictable**.

possibility

- n. a chance that something may happen or be truesynonym: chance, prospect, likelihood
- (1) **possibility** for growth, (2) **possibility** of a major earthquake

The **possibility** of getting the disease will drastically increase.

variant

 something that is slightly different from others of the same type

synonym: variation, modification, variance

(1) **variant** types of pigeon, (2) a **variant** of the same word The first **variant** of the virus appeared in less than a month.

parallel

 adj. being everywhere equidistant and not intersecting; of or relating to the simultaneous performance of multiple operations

synonym: aligned, side-by-side, similar

(1) a **parallel** case, (2) **parallel** processing He walked a road **parallel** to the railroad.

cultivate

- v. to prepare and foster land for growing crops or plants synonym: boost, foster, nurture
- (1) **cultivate** a field, (2) **cultivate** relationships University is a great place to **cultivate** our minds and expertise.

analogy

 a comparison between similar things that have similar aspects, often used to help explain a principle or concept

synonym: metaphor, comparison, parallel

(1) draw **analogy**, (2) historical **analogy**Some kinds of machine learning models show an **analogy** to how people learn.

permutation

 the act or process of rearranging or reordering a set of elements or objects in a different sequence or configuration; a specific arrangement or order of a set of

elements or objects

synonym: variation, transformation, alteration

(1) **permutation** formula, (2) **permutation** test

Scientists study the **permutations** of chemical elements and compounds to better understand their properties and potential uses.

breed

v. to keep animals for producing offspring in a regulated manner

synonym: raise, multiply, reproduce

(1) **breed** horses, (2) **breed** suspicion

This animal **breeds** in northern latitudes.

orchestrate

v. to plan, coordinate, or arrange something, especially skillfully or cleverly; (noun) the act of organizing or directing the elements of a composition, especially in music

synonym: plan, coordinate, arrange

(1) **orchestrate** a takeover, (2) **orchestrate** the political reinstatement

He carefully **orchestrated** the details of his business plan.

unfavorable

adj. not advantageous or beneficial; opposed to one's interests or desires

synonym: adverse, negative, hostile

(1) unfavorable situation, (2) unfavorable reviews

The unforeseen weather change resulted in an **unfavorable** outcome for the outdoor event.

trade-off

 a balance achieved between two desirable but incompatible features; an exchange that occurs as a compromise

synonym: compromise, balance, exchange

(1) **trade-off** problem, (2) environmental **trade-off**There was a **trade-off** between speed and accuracy in the task.

resolution

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

synonym: determination, decision, settlement

(1) **resolution** of a conflict, (2) display **resolution**He made a New Year's **resolution** to exercise more and eat healthier.

decide

- v. to make up someone's mind about something; to come to a conclusion or judgment after considering options
 synonym: choose, determine, settle
- (1) **decide** a question, (2) **decide** on a course of action She couldn't **decide** whether to order the pizza or the pasta for dinner.
- e n. a flat, often thin, piece of bread, meat, cheese, etc., that has been cut from a larger piece; a wound made by cutting

synonym: piece, portion, slit

- (1) a **slice** of the company's revenue, (2) **slice** a tomato thin The children complained because one **slice** of cake was slightly larger than the other.
- a pile of something arranged or laid one on top of another; a large tall chimney through which combustion gases and smoke can be evacuated

synonym: accumulation, heap, pile

- high stack, (2) a large stack of paper
 The earthquake caused a stack of lumber to crumble noisily.
- a type of electromagnetic radiation that has a wavelength shorter than visible light allowing hidden objects such as bones and organs inside the body to be photographed

synonym: roentgenogram, photon radiography

(1) X-ray scan, (2) an X-ray of arteries

slice

stack

X-ray

The doctor ordered an **X-ray** to see if there was any damage to the bones.

unbeknownst

adv. without the knowledge or awareness of someone; without someone's knowledge or participation

synonym: secretly, covertly

(1) **unbeknownst** to me, (2) **unbeknownst** to any of us **Unbeknownst** to the family, the treasure had been hidden in the attic for years.

calculated

 adj. done with careful thought or planning; deliberate and intentional; based on a process of reasoning or estimation rather than on instinct or chance

synonym: premeditated, willful, deliberate

(1) calculated bankruptcy, (2) calculated crime

The company made a **calculated** decision to invest in new technology.

laser

 a device that emits powerful and narrow light that can be used as a tool to cut metal through a process of optical amplification

synonym: beam, bar, ray

(1) laser printer, (2) pulse laser

The company holds patents on core components of **laser** jet printers.

segment

a part or section of something; a distinct group within a larger whole

synonym: section, part, division

(1) segment analysis, (2) market segment

The report divided the data into **segments** based on age, gender, and income level.

individually

adv. separately or apart from others

synonym: separately, one by one, independently

(1) answer questions individually, (2) individually

designed product

Each department has done its product costing **individually**.

render

v. to bring someone or something into a particular state; to provide something such as service, help, etc.

synonym: deliver, give, provide

(1) **render** an assessment, (2) **render** the contract void The jury must **render** a decision on this complex case.

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.

intricacy

- the quality of being complex, detailed, or highly involved;
 the existence of many interrelated parts or elements
- synonym: complexity, intricateness, elaboration
- (1) the **intricacy** of the design, (2) legal **intricacy**The clockwork mechanism of the antique watch showed incredible **intricacy**.

preserve

v. to keep or maintain a particular quality, feature, etc., especially to prevent it from decaying, being damaged, or being destroyed

synonym: conserve, care for, maintain

(1) **preserve** my strength, (2) **preserve** a country's heritage They worked hard to **preserve** the nature of their native lands.

labor

n. productive work, especially physical work done for wages; the people who do manual or physical work in a country or company for wage; (verb) to work hard or to strive and make an effort to reach a goal

synonym: toil, moil, donkeywork

(1) seasonal labor, (2) manual labor

In several countries, child **labor** is a serious social problem.

intensive

adj. involving a lot of work or activity in a short time synonym: thorough, comprehensive, in-depth

(1) intensive agriculture, (2) intensive care

The construction industry is labor **intensive**, although it has been somewhat automated by introducing large machinery.

disconnect

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

synonym: unplug, detach, take apart

(1) **disconnect** a plug, (2) **disconnect** the water supply She finally decided to **disconnect** herself from the company.

virtual

adj. being actually such in almost every respect; existing in essence or effect though not in actual fact

synonym: practical

(1) a **virtual** image, (2) trading of **virtual** currencies She is the **virtual** president of the company.

ultimate

adj. furthest or highest in degree or order synonym: highest, maximum, foremost

(1) the **ultimate** goal in life, (2) the **ultimate** luxury Management must take **ultimate** responsibility for the accident.

calculate

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

synonym: compute, figure, estimate

(1) **calculate** the distance, (2) **calculate** his credit score He couldn't **calculate** the actual value of the artwork.

weigh

v. to have a particular weight; to carefully evaluate things before making a conclusion

synonym: consider, cogitate, count

(1) **weigh** heavily on stock prices, (2) **weigh** a cargo The baby **weighs** 1 pound 3 oz.

auditorium

 a room or building used for concerts, plays, or other public performances

synonym: hall, theater, amphitheater

(1) open-air auditorium, (2) auditorium annex

The **auditorium** seating was filled with people waiting for the concert to begin.

increasingly

adv. more and more

synonym: more and more, progressively

(1) **increasingly** become common, (2) face **increasingly** complicated challenges

Our company found it **increasingly** difficult to keep up with the competition.

technological

adj. based on scientific and industrial progress

synonym: specialized, technical

(1) **technological** advancement, (2) **technological** policy **Technological** advances have disrupted many industries.

develop

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.

horizon

 the line at which the earth's surface and the sky appear to meet; the range of interest or activity that can be anticipated

synonym: skyline, view, visible boundary

(1) the event horizon of a black hole, (2) business horizon

As the sun set, the colors of the sky merged with the **horizon**, creating a beautiful orange and pink hue.

steel

 a strong metal alloy made up of iron with typically a few tenths of a percent of carbon used for making things that need a strong structure

synonym: iron

(1) magnetic steel, (2) steel beam

This bridge is the third largest **steel** bridge in the world.

structural

adj. associated with the way on construction or organization of anything

synonym: architectural, basic, anatomical

(1) **structural** analyses, (2) **structural** reorganization

The earthquake resulted in significant **structural** destruction.

hybrid

adj. composed of different elements or mixed characters *synonym*: blended, mixed, combined

(1) new **hybrid** system, (2) an interspecific **hybrid**The mule is a **hybrid** between a male donkey and a female horse.

optical

adj. of or relating to or light or the ability to see; (noun) the science of light and vision, and to instruments and techniques used in the study and application of light

synonym: visual, ocular

(1) new **optical** glasses, (2) **optical** fiber

The **optical** illusion made it appear like the building was floating in midair.

illusion

 a false idea or belief, especially about somebody or about a situation

synonym: delusion, fallacy, magic trick

(1) optical **illusion**, (2) the **illusion** of being in the forest He could no longer tell the difference between **illusion** and reality.

glimpse

 a brief or partial view; the act of seeing something or someone for a very short time or only partly

synonym: glance, peek, sighting

(1) a momentary **glimpse**, (2) passing **glimpse**Our team caught a **glimpse** of the world-class technique in

this game.

await

v. to wait or stay ready for something; to expect or anticipate something

synonym: expect, wait for, anticipate

(1) await your reply, (2) await a decision

We await the results of the election with bated breath.

inspire

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

synonym: boost, encourage, enlighten

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

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

countless

adj. too numerous to be counted or very manysynonym: innumerable, myriad, numerous

(1) **countless** hours, (2) answer **countless** questions There are **countless** methods for dealing with stress.

Session 2: Spelling

1.	trff problem	n.	a balance achieved between two desirable but incompatible features; an exchange that occurs as a compromise
2.	prve a country's heritage	<i>v</i> .	to keep or maintain a particular quality, feature, etc., especially to prevent it from decaying, being damaged, or being destroyed
3.	remle achievement	adj.	worthy of attention because unusual or special
4.	intellectual ft	n.	a notable or impressive achievement, especially one that requires great skill or bravery
5.	posty of a major earthquake	n.	a chance that something may happen or be true
6.	die suly	adv.	quickly and unexpectedly
7.	lar printer	n.	a device that emits powerful and narrow light that can be used as a tool to cut metal through a process of optical amplification
8.	a viI image	adj.	being actually such in almost every respect; existing in essence or effect though not in actual fact
9.	dion chief	n.	the act or outcome of splitting into separate parts; a critical organizational unit or sector
10.	a sle of the company's revenue	n.	a flat, often thin, piece of bread, meat, cheese, etc., that has been cut from a larger piece; a wound made by cutting

ANSWERS: 1. trade-off, 2. preserve, 3. remarkable, 4. feat, 5. possibility, 6. suddenly, 7. laser, 8. virtual, 9. division, 10. slice

11.	sify the process	<i>v</i> .	to make something more straightforward, more understandable, or easier to do
12.	caled bankruptcy	adj.	done with careful thought or planning; deliberate and intentional; based on a process of reasoning or estimation rather than on instinct or chance
13.	magnetic stl	n.	a strong metal alloy made up of iron with typically a few tenths of a percent of carbon used for making things that need a strong structure
14.	stI beam	n.	a strong metal alloy made up of iron with typically a few tenths of a percent of carbon used for making things that need a strong structure
15.	cute a field	<i>v</i> .	to prepare and foster land for growing crops or plants
16.	sce of a project	n.	the range of one's perceptions, thoughts, or actions, or a subject that
17.	a pael case	adj.	being everywhere equidistant and not intersecting; of or relating to the simultaneous performance of multiple operations
18.	optical ilon	n.	a false idea or belief, especially about somebody or about a situation
19.	abct science	adj.	based on general ideas, feelings, or qualities and not on any a physical or concrete existence
20.	open-air audum	n.	a room or building used for concerts, plays, or other public performances

ANSWERS: 11. simplify, 12. calculated, 13. steel, 14. steel, 15. cultivate, 16. scope, 17. parallel, 18. illusion, 19. abstract, 20. auditorium

22. new opl glasses adj. of or relating to or light or the ability to see; (noun) the science of light and vision, and to instruments and techniques used in the study and application of light 23. find a coring lack adj. similar to, connected with, or accompanying something, especially position or purpose 24. pael processing adj. being everywhere equidistant and not intersecting; of or relating to the simultaneous performance of multiple	ınother	to meet or cross one another	•	inct at a point	1.
accompanying something, especially position or purpose 24. pael processing adj. being everywhere equidistant and not intersecting; of or relating to the	e of light and ents and	see; (noun) the science of light and vision, and to instruments and techniques used in the study and	dj.	new opI glasses	2.
intersecting; of or relating to the		accompanying something, especiall	dj.	find a coring lack	3.
operations	ting to the	intersecting; of or relating to the simultaneous performance of multip	dj.	pael processing	4.
25. mic numerous instruments v. to imitate someone's speech, movement, or behavior, especially to make others laugh	•	movement, or behavior, especially t	•	mic numerous instruments	5.
26. landscape arct n. a person whose job is to design plans be used in making something, such as buildings	• •	be used in making something, such	•	landscape arct	6.
27. indlly designed product adv. separately or apart from others	m others	separately or apart from others	dv.	indlly designed product	7.
28. a man of prty n. a thing or things that belong to someone	elong to		•	a man of prty	8.
29. disct a plug v. to unfasten or disjoin something, especially to break the connection between a supply of gas, water, or electricity and a piece of equipment	e connection as, water, or	especially to break the connection between a supply of gas, water, or	•	disct a plug	9.
30. dict difference adj. noticeable from something else of a similar type	hing else of a	_	dj.	dict difference	0.

ANSWERS: 21. intersect, 22. optical, 23. corresponding, 24. parallel, 25. mimic, 26. architect, 27. individually, 28. property, 29. disconnect, 30. distinct

31.	easily imale	adj.	capable of being imagined
32.	high stk	n.	a pile of something arranged or laid one on top of another; a large tall chimney through which combustion gases and smoke can be evacuated
33.	series of expnts	n.	the scientific test conducted to observe what happens and gain new knowledge
34.	asd the viewer	<i>v</i> .	to surprise or shock someone with wonder very much
35.	spinal cure	n.	the degree to which a line or surface deviates from being straight or flat; a measure of the amount of bending of a curve
36.	die money equally	<i>v</i> .	to separate or cause to separate into parts or groups
37.	f_t accomplishment	n.	a notable or impressive achievement, especially one that requires great skill or bravery
38.	the crosswise dion	n.	a measurable extent of a particular kind, such as width, height, or length
39.	cute relationships	<i>v</i> .	to prepare and foster land for growing crops or plants
40.	rer to a book	ν.	to direct someone's attention, thoughts, or questions to another source or person; to mention, cite, or allude to something as evidence or support
41.	new hyd system	adj.	composed of different elements or mixed characters

ANSWERS: 31. imaginable, 32. stack, 33. experiment, 34. astound, 35. curvature, 36. divide, 37. feat, 38. dimension, 39. cultivate, 40. refer, 41. hybrid

42.	study arcral engineering	adj.	of or relating to the design and construction of buildings and other structures and the features and style of such structures
43.	functional speion	n.	a detailed description of the characteristics, features, or requirements of something, typically a product or system; a written statement that outlines the standards, procedures or requirements for a project or job
44.	suly attacked by an enemy	adv.	quickly and unexpectedly
45.	answer questions indlly	adv.	separately or apart from others
46.	become essly same	adv.	relating to the essential features or concepts of anything
47.	evely succeed	adv.	finally, particularly after a long time or a lot of struggle, complications, and so or
48.	arcure design	n.	the art and science of designing and constructing buildings
49.	high pain thld	n.	the floor or ground that forms the bottom of a doorway and offers support when passing through a doorway; the smallest detectable sensation
50.	dettic approach	adj.	characterized by an assumption of cause and effect and the absence of chance or randomness, often used to describe scientific or engineering calculations
51.	spt a reward equally	v.	to divide, or to make something divide into two or more parts, especially along a particular line

ANSWERS: 42. architectural, 43. specification, 44. suddenly, 45. individually, 46. essentially, 47. eventually, 48. architecture, 49. threshold, 50. deterministic, 51. split

52.	the stre of a machine	n.	the way of construction of something and the arrangement of its parts, or a complex thing constructed of many parts
53.	ine him to write a novel	ν.	to make somebody fill with the desire, confidence, or enthusiasm, especially to do something creative
54.	rao of boys to girls	n.	the relative size or amount of one thing to another, typically expressed in the form of a fraction or decimal
55.	inue against his rival	<i>v</i> .	to make someone interested, especially by being strange, unusual, or mysterious; to make a secret plan with other people to harm someone
56.	answer coss questions	adj.	too numerous to be counted or very many
57.	unfle situation	adj.	not advantageous or beneficial; opposed to one's interests or desires
58.	evely become obsolete	adv.	finally, particularly after a long time or a lot of struggle, complications, and so on
59.	racial orn	n.	the first existence or beginning of something
60.	historical any	n.	a comparison between similar things that have similar aspects, often used to help explain a principle or concept
61.	morsis process	n.	the biological process of growth, development, and differentiation of cells, tissues, and organs to give rise to the complex three-dimensional structures of living organisms

ANSWERS: 52. structure, 53. inspire, 54. ratio, 55. intrigue, 56. countless, 57. unfavorable, 58. eventually, 59. origin, 60. analogy, 61. morphogenesis

62.	inue him	ν.	to make someone interested, especially by being strange, unusual, or mysterious; to make a secret plan with other people to harm someone
63.	at an elon of 1000 feet	n.	the height of something above sea level or above the ground; the event of something being raised upward
64.	gene vaon	n.	the act or state of changing; a difference or change in the way something is done, made or said
65.	the spinal con	n.	one of the vertical blocks that split content on a page or screen from top to bottom; an upright pillar that often supports an arch, entablature, or other structure or stands alone as a monument
66.	miI amount	adj.	tiny in amount; the least possible
67.	a ventilation cyer	n.	a solid or hollow geometric figure with two round ends and long straight sides, or an object shaped like this
68.	railways inct the country	v.	to meet or cross one another
69.	manual lar	n.	productive work, especially physical work done for wages; the people who do manual or physical work in a country or company for wage; (verb) to work hard or to strive and make an effort to reach a goal
70.	he was enly to blame	adv.	completely

ANSWERS: 62. intrigue, 63. elevation, 64. variation, 65. column, 66. minimal, 67. cylinder, 68. intersect, 69. labor, 70. entirely

71. the thld between rooms	n.	the floor or ground that forms the bottom of a doorway and offers support when passing through a doorway; the smallest detectable sensation
72. sify my life	<i>v</i> .	to make something more straightforward, more understandable, or easier to do
73. a vat of the same word	n.	something that is slightly different from others of the same type
74. asyic warfare	adj.	lacking symmetry or balance; not corresponding in size, shape, or degree; characterized by an uneven or unequal distribution or arrangement
75. vie by X-ray	adj.	capable of being seen; or open to easy view
76. the incy of the design	n.	the quality of being complex, detailed, or highly involved; the existence of many interrelated parts or elements
77. environmental trff	n.	a balance achieved between two desirable but incompatible features; an exchange that occurs as a compromise
78. ext control	v.	to put forth effort; to put into action; to bring into play
79. have broad sce	n.	the range of one's perceptions, thoughts, or actions, or a subject that
80. arpe symbol	n.	a very typical example of a certain person or thing; a recurrent symbol or motif in literature, art, or mythology that represents a universal pattern of human nature

ANSWERS: 71. threshold, 72. simplify, 73. variant, 74. asymmetric, 75. visible, 76. intricacy, 77. trade-off, 78. exert, 79. scope, 80. archetype

81.	cate his credit score	<i>v</i> .	to judge or find out the amount or number of something by using mathematics
82.	orcte a takeover	ν.	to plan, coordinate, or arrange something, especially skillfully or cleverly; (noun) the act of organizing or directing the elements of a composition especially in music
83.	a geic proof	adj.	relating to or having the characteristics of geometry (= the shape, properties, and relations of points, lines, surfaces, solids)
84.	strict time connts	n.	a limit or restriction on something, such as an action, behavior, or thought
85.	the great diry of the century	n.	the act or process of finding information a place, or an object, or learning about something that was previously not known
86.	inve care	adj.	involving a lot of work or activity in a short time
87.	the coring word in Spanish	adj.	similar to, connected with, or accompanying something, especially in position or purpose
88.	die the cake into two pieces	<i>v</i> .	to separate or cause to separate into parts or groups
89.	dee on a course of action	<i>v</i> .	to make up someone's mind about something; to come to a conclusion or judgment after considering options
90.	equnt in meaning	n.	having the same value, quality, meaning, purpose, etc.

ANSWERS: 81. calculate, 82. orchestrate, 83. geometric, 84. constraint, 85. discovery, 86. intensive, 87. corresponding, 88. divide, 89. decide, 90. equivalent

91.	asyic information	adj.	lacking symmetry or balance; not corresponding in size, shape, or degree; characterized by an uneven or unequal distribution or arrangement
92.	orcte the political reinstatement	v.	to plan, coordinate, or arrange something, especially skillfully or cleverly; (noun) the act of organizing or directing the elements of a composition, especially in music
93.	sth along the coast	<i>v</i> .	to make or be capable of making anything longer or broader without hurting or breaking
94.	alhm for image processing	n.	a set of rules or rigorous instructions typically used to solve a specific problem or to perform a computation
95.	have a b_s toward socialism	n.	a strong feeling in favor of or against one group of people, an idea, or thing, often not based on fair judgment
96.	cellular dion	n.	the act or outcome of splitting into separate parts; a critical organizational unit or sector
97.	posty for growth	n.	a chance that something may happen or be true
98.	a ram choice	adj.	made, done, or happening without method, conscious decision, or any regular pattern
99.	ce root	n.	a three-dimensional shape with six square faces that are all equal in size; (of mathematics) the result of multiplying the number by itself three times

ANSWERS: 91. asymmetric, 92. orchestrate, 93. stretch, 94. algorithm, 95. bias, 96. division, 97. possibility, 98. random, 99. cube

100. rer to a map	<i>v</i> .	to direct someone's attention, thoughts, or questions to another source or person; to mention, cite, or allude to something as evidence or support
101. peron test	n.	the act or process of rearranging or reordering a set of elements or objects in a different sequence or configuration; a specific arrangement or order of a set of elements or objects
102. enly satisfied with the meal	adv.	completely
103. classic arcure	n.	the art and science of designing and constructing buildings
104. expnt design	<i>n</i> .	the scientific test conducted to observe what happens and gain new knowledge
105. awt a decision	<i>v</i> .	to wait or stay ready for something; to expect or anticipate something
106. eve over the past decade	<i>v</i> .	to develop gradually, or to cause the development of something or someone gradually
107. unn danger	adj.	not seen or noticed; not perceived
108. an elte hat	adj.	containing a lot of carefully prepared and organized or many complicated and detailed parts
109. the RSA alhm	n.	a set of rules or rigorous instructions typically used to solve a specific problem or to perform a computation
110. the event hon of a black hole	n.	the line at which the earth's surface and the sky appear to meet; the range of interest or activity that can be anticipated

ANSWERS: 100. refer, 101. permutation, 102. entirely, 103. architecture, 104. experiment, 105. await, 106. evolve, 107. unseen, 108. elaborate, 109. algorithm, 110. horizon

111. feminine arpe	n.	a very typical example of a certain person or thing; a recurrent symbol or motif in literature, art, or mythology that represents a universal pattern of human nature
112. prs improvement	n.	a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products
113. notable ince	n.	a particular example or single occurrence of something
114. the ulte goal in life	adj.	furthest or highest in degree or order
115. passing gle	n.	a brief or partial view; the act of seeing something or someone for a very short time or only partly
116. in a prele manner	adj.	capable of being known, seen or declared in advance
117. 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
118. pre the amendment	<i>v</i> .	to make a proposal, declare a plan for something
119. an unn force	adj.	not seen or noticed; not perceived
120. exd theory	v.	to explain or clarify something in detail or with great care; to interpret or elucidate

ANSWERS: 111. archetype, 112. process, 113. instance, 114. ultimate, 115. glimpse, 116. predictable, 117. plot, 118. propose, 119. unseen, 120. expound

121. inve agriculture	adj.	involving a lot of work or activity in a short time
122. a large stk of paper	n.	a pile of something arranged or laid one on top of another; a large tall chimney through which combustion gases and smoke can be evacuated
123. a six-cyer engine	n.	a solid or hollow geometric figure with two round ends and long straight sides, or an object shaped like this
124. the ulte luxury	adj.	furthest or highest in degree or order
125. st beliefs	n.	a group of people who follow a particular religious or philosophical belief system, especially one that is regarded as outside the norm or mainstream
126. new dion	n.	a measurable extent of a particular kind, such as width, height, or length
127. weh heavily on stock prices	v.	to have a particular weight; to carefully evaluate things before making a conclusion
128. stre and function of the brain	n.	the way of construction of something and the arrangement of its parts, or a complex thing constructed of many parts
129. opl fiber	adj.	of or relating to or light or the ability to see; (noun) the science of light and vision, and to instruments and techniques used in the study and application of light
ANSWERS: 121. intensive, 122. stack, 123. cylinder, 124. ultimate, 125. sect, 126. dimension, 127. weigh, 128. structure, 129. optical		

131. enon the future v. to imagine or expect what a situation will be like in the future 132. display reson n. a firm decision or determination to do	or ng ed;
132 display res on n a firm decision or determination to do	ng ed;
not do something; the action of solving a problem, dispute, or conflict; the quality of being resolved or determine the clarity and sharpness of an image display	
133. Xy scan n. a type of electromagnetic radiation that has a wavelength shorter than visible light allowing hidden objects such as bones and organs inside the body to be photographed	;
134. miI effort adj. tiny in amount; the least possible	
135. vie stars adj. capable of being seen; or open to eas view	зу
136. micic inquiry adj. tiny; exceedingly precise and detail-oriented; of or used in microsco	ру
137. face incgly complicated adv. more and more challenges	
138. ine a feeling of curiosity v. to make somebody fill with the desire, confidence, or enthusiasm, especially do something creative	
139. market set n. a part or section of something; a disting group within a larger whole	nct

ANSWERS: 130. evolve, 131. envision, 132. resolution, 133. X-ray, 134. minimal, 135. visible, 136. microscopic, 137. increasingly, 138. inspire, 139. segment

140. vaon of temperature	n.	the act or state of changing; a difference or change in the way something is done, made or said
141. secret st	n.	a group of people who follow a particular religious or philosophical belief system, especially one that is regarded as outside the norm or mainstream
142. an abct noun	adj.	based on general ideas, feelings, or qualities and not on any a physical or concrete existence
143. decision-making prs	n.	a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products
144. micic analysis	adj.	tiny; exceedingly precise and detail-oriented; of or used in microscopy
145. enon the project's success	<i>v</i> .	to imagine or expect what a situation will be like in the future
146. mic a human voice	v.	to imitate someone's speech, movement, or behavior, especially to make others laugh
147. ice ce	n.	a three-dimensional shape with six square faces that are all equal in size; (of mathematics) the result of multiplying the number by itself three times
ANSWERS: 140. variation, 141. sect, 142.	abs	tract, 143. process, 144. microscopic,

ANSWERS: 140. variation, 141. sect, 142. abstract, 143. process, 144. microscopic 145. envision, 146. mimic, 147. cube

148. dif	ate a function	<i>v</i> .	to recognize or establish as being distinct; to distinguish between things that are compared; to calculate a derivative
	emle breadth of vledge	adj.	worthy of attention because unusual or special
150. re	_r an assessment	v.	to bring someone or something into a particular state; to provide something such as service, help, etc.
151. pr	e changes	v.	to make a proposal, declare a plan for something
152. a pre	eved notion	adj.	(of an idea or opinion) formed beforehand, especially without evidence for its truth or usefulness
153. legal	incy	n.	the quality of being complex, detailed, or highly involved; the existence of many interrelated parts or elements
154. ex	d on the subject	v.	to explain or clarify something in detail or with great care; to interpret or elucidate
155. engir	neering speion	n.	a detailed description of the characteristics, features, or requirements of something, typically a product or system; a written statement that outlines the standards, procedures, or requirements for a project or job
156. in	ly cope with	adv.	immediately
157. evolu	utionary biy	n.	the scientific study of life and the natura processes of living things

ANSWERS: 148. differentiate, 149. remarkable, 150. render, 151. propose, 152. preconceived, 153. intricacy, 154. expound, 155. specification, 156. instantly, 157. biology

158. unbst to me	adv.	without the knowledge or awareness of someone; without someone's knowledge or participation
159. eloquently artte	<i>v</i> .	to express oneself clearly and effectively in spoken or written language
160. a con of water	n.	one of the vertical blocks that split content on a page or screen from top to bottom; an upright pillar that often supports an arch, entablature, or other structure or stands alone as a monument
161. ext influence	<i>v</i> .	to put forth effort; to put into action; to bring into play
162. equnt amounts	n.	having the same value, quality, meaning, purpose, etc.
163. asd everyone	<i>v</i> .	to surprise or shock someone with wonder very much
164. cellular morsis	n.	the biological process of growth, development, and differentiation of cells, tissues, and organs to give rise to the complex three-dimensional structures of living organisms
165. unbst to any of us	adv.	without the knowledge or awareness of someone; without someone's knowledge or participation
166. cell and molecular biy	n.	the scientific study of life and the natural processes of living things
167. brd suspicion	<i>v</i> .	to keep animals for producing offspring in a regulated manner

ANSWERS: 158. unbeknownst, 159. articulate, 160. column, 161. exert, 162. equivalent, 163. astound, 164. morphogenesis, 165. unbeknownst, 166. biology, 167. breed

adj.	too numerous to be counted or very many
adj.	noticeable from something else of a similar type
adj.	being actually such in almost every respect; existing in essence or effect though not in actual fact
n.	the height of something above sea level or above the ground; the event of something being raised upward
n.	the amount of space occupied by an object or substance; the magnitude of sound
adj.	made, done, or happening without method, conscious decision, or any regular pattern
n.	a belief, custom, or way of doing something that has been passed down from generation to generation within a group or society
adj.	being the exact same one
adj.	capable of being imagined
adj.	capable of being known, seen or declared in advance
n.	a feeling of great pleasure or happiness
adj.	associated with the way on construction or organization of anything
	adj. n. adj. adj. adj. adj. adj. adj.

ANSWERS: 168. countless, 169. distinct, 170. virtual, 171. elevation, 172. volume, 173. random, 174. tradition, 175. identical, 176. imaginable, 177. predictable, 178. delight, 179. structural

180. the degree of cure	n.	the degree to which a line or surface deviates from being straight or flat; a measure of the amount of bending of a curve
181. awt your reply	<i>v</i> .	to wait or stay ready for something; to expect or anticipate something
182. orn of information	n.	the first existence or beginning of something
183. ine a lot of paperwork	ν.	to include or affect someone or something as a necessary part of something else
184. sle a tomato thin	n.	a flat, often thin, piece of bread, meat, cheese, etc., that has been cut from a larger piece; a wound made by cutting
185. an Xy of arteries	n.	a type of electromagnetic radiation that has a wavelength shorter than visible light allowing hidden objects such as bones and organs inside the body to be photographed
186. connt on business activity	n.	a limit or restriction on something, such as an action, behavior, or thought
187. a scientific diry	n.	the act or process of finding information a place, or an object, or learning about something that was previously not known
188. peron formula	n.	the act or process of rearranging or reordering a set of elements or objects in a different sequence or configuration; a specific arrangement or order of a set of elements or objects

ANSWERS: 180. curvature, 181. await, 182. origin, 183. involve, 184. slice, 185. X-ray, 186. constraint, 187. discovery, 188. permutation

189. spt a bill	ν.	to divide, or to make something divide into two or more parts, especially along a particular line
190. sth a story	ν.	to make or be capable of making anything longer or broader without hurting or breaking
191. dep a strategy	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
192. essly correct	adv.	relating to the essential features or concepts of anything
193. artte his position	<i>v</i> .	to express oneself clearly and effectively in spoken or written language
194. an interspecific hyd	adj.	composed of different elements or mixed characters
195. high voe	n.	the amount of space occupied by an object or substance; the magnitude of sound
196. be killed inly	adv.	immediately
197. zm in on a photo	<i>v</i> .	to move along very quickly; (noun) the act of rising upward into the air
198. teccal advancement	adj.	based on scientific and industrial progress
199. weh a cargo	v.	to have a particular weight; to carefully evaluate things before making a conclusion

ANSWERS: 189. split, 190. stretch, 191. develop, 192. essentially, 193. articulate, 194. hybrid, 195. volume, 196. instantly, 197. zoom, 198. technological, 199. weigh

200.	vat t	ypes of pigeon	n.	something that is slightly different from others of the same type
201.	seta	analysis	n.	a part or section of something; a distinct group within a larger whole
202.	sct ar	n image	v.	to create a work of art by carving, casting, or other shaping techniques
203.	a momen	tary gle	n.	a brief or partial view; the act of seeing something or someone for a very short time or only partly
204.	seasonal	lar	n.	productive work, especially physical work done for wages; the people who do manual or physical work in a country or company for wage; (verb) to work hard or to strive and make an effort to reach a goal
205.	res	on of a conflict	n.	a firm decision or determination to do or not do something; the action of solving a problem, dispute, or conflict; the quality of being resolved or determined; the clarity and sharpness of an image or display
206.	the il	on of being in the forest	n.	a false idea or belief, especially about somebody or about a situation
207.	inc	_gly become common	adv.	more and more
208.	unf	_le reviews	adj.	not advantageous or beneficial; opposed to one's interests or desires
209.	dep	a skill	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

ANSWERS: 200. variant, 201. segment, 202. sculpt, 203. glimpse, 204. labor, 205. resolution, 206. illusion, 207. increasingly, 208. unfavorable, 209. develop

210. business hon	n.	the line at which the earth's surface and the sky appear to meet; the range of interest or activity that can be anticipated
211. draw any	n.	a comparison between similar things that have similar aspects, often used to help explain a principle or concept
212. arct of the peace accord	n.	a person whose job is to design plans to be used in making something, such as buildings
213. prve my strength	<i>v</i> .	to keep or maintain a particular quality, feature, etc., especially to prevent it from decaying, being damaged, or being destroyed
214. geic pattern	adj.	relating to or having the characteristics of geometry (= the shape, properties, and relations of points, lines, surfaces, solids)
215. dettic system	adj.	characterized by an assumption of cause and effect and the absence of chance or randomness, often used to describe scientific or engineering calculations
216. disct the water supply	<i>v</i> .	to unfasten or disjoin something, especially to break the connection between a supply of gas, water, or electricity and a piece of equipment
217. caled crime	adj.	done with careful thought or planning; deliberate and intentional; based on a process of reasoning or estimation rather than on instinct or chance

ANSWERS: 210. horizon, 211. analogy, 212. architect, 213. preserve, 214. geometric, 215. deterministic, 216. disconnect, 217. calculated

218. dee a q	uestion	<i>v</i> .	to make up someone's mind about something; to come to a conclusion or judgment after considering options
219. dif fiction	ate between fact and	ν.	to recognize or establish as being distinct; to distinguish between things that are compared; to calculate a derivative
220. a tremor of	det	n.	a feeling of great pleasure or happiness
221. 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
222. rer the	contract void	v.	to bring someone or something into a particular state; to provide something such as service, help, etc.
223. bs again	st a big company	n.	a strong feeling in favor of or against one group of people, an idea, or thing, often not based on fair judgment
224. pre	ved opinions	adj.	(of an idea or opinion) formed beforehand, especially without evidence for its truth or usefulness
225. audu	m annex	n.	a room or building used for concerts, plays, or other public performances
226. elte l	Ponzi scheme	adj.	containing a lot of carefully prepared and organized or many complicated and detailed parts
227. tec	_cal policy	adj.	based on scientific and industrial progress
228. debt-to-incc	ome rao	n.	the relative size or amount of one thing to another, typically expressed in the form of a fraction or decimal

ANSWERS: 218. decide, 219. differentiate, 220. delight, 221. plot, 222. render, 223. bias, 224. preconceived, 225. auditorium, 226. elaborate, 227. technological, 228. ratio

229. sct prototype	<i>v</i> .	to create a work of art by carving, casting, or other shaping techniques
230. zm lens	ν.	to move along very quickly; (noun) the act of rising upward into the air
231. ine a high degree of risk	ν.	to include or affect someone or something as a necessary part of something else
232. against tron	n.	a belief, custom, or way of doing something that has been passed down from generation to generation within a group or society
233. chemical prty	n.	a thing or things that belong to someone
234. beautiful arcral landmarks	adj.	of or relating to the design and construction of buildings and other structures and the features and style of such structures
235. stral analyses	adj.	associated with the way on construction or organization of anything
236. for ince	n.	a particular example or single occurrence of something
237. pair of idal twins	adj.	being the exact same one
238. pulse lar	n.	a device that emits powerful and narrow light that can be used as a tool to cut metal through a process of optical amplification
239. cate the distance	<i>v</i> .	to judge or find out the amount or number of something by using mathematics

ANSWERS: 229. sculpt, 230. zoom, 231. involve, 232. tradition, 233. property, 234. architectural, 235. structural, 236. instance, 237. identical, 238. laser, 239. calculate

240. br__d horses

v. to keep animals for producing offspring in a regulated manner

ANSWERS: 240. breed

Session 3: Fill in the Blanks

1. V n.	Which of the company do you work in? the act or outcome of splitting into separate parts; a critical organizational unit or sector
	These articles cite five of climate change. a particular example or single occurrence of something
	There are methods for dealing with stress. too numerous to be counted or very many
4. T <i>n</i> .	The company holds patents on core components of jet printers. a device that emits powerful and narrow light that can be used as a tool to cut metal through a process of optical amplification
	He couldn't the actual value of the artwork. to judge or find out the amount or number of something by using mathematics
6. S v.	She finally decided to herself from the company. to unfasten or disjoin something, especially to break the connection between a supply of gas, water, or electricity and a piece of equipment
	There is a lot of in the colors of flowers in the garden. the act or state of changing; a difference or change in the way something is done, made or said
	My home is easily from the shore. capable of being seen; or open to easy view
	WERS: 1. division, 2. instances, 3. countless, 4. laser, 5. calculate, 6. disconnect riation, 8. visible

9.	This bridge is the third largest bridge in the world.
n.	a strong metal alloy made up of iron with typically a few tenths of a percent of carbon used for making things that need a strong structure
10.	The unforeseen weather change resulted in an outcome for the outdoor event.
adj	not advantageous or beneficial; opposed to one's interests or desires
11.	The of the mountain made it difficult to breathe.
n.	the height of something above sea level or above the ground; the event of something being raised upward
12.	Some kinds of machine learning models show an to how people learn.
n.	a comparison between similar things that have similar aspects, often used to help explain a principle or concept
13.	advances have disrupted many industries.
adj	based on scientific and industrial progress
14.	The children complained because one of cake was slightly larger than the other.
n.	a flat, often thin, piece of bread, meat, cheese, etc., that has been cut from a larger piece; a wound made by cutting
	Infant formulas are nutritionally almost to a mother's breast milk. being the exact same one
16.	The city is known for its impressive and beautiful old buildings.
n.	the art and science of designing and constructing buildings
	SWERS: 9. steel, 10. unfavorable, 11. elevation, 12. analogy, 13. Technological, slice, 15. identical, 16. architecture

17. Each department has done its product costing
adv. separately or apart from others
18. He himself to lift the heavyweight.
v. to put forth effort; to put into action; to bring into play
19. He stood to inherit a million-dollar
n. a thing or things that belong to someone
20. The of human thought is diverse.
n. the range of one's perceptions, thoughts, or actions, or a subject that
21. The European Central Bank is Europe's of the Federal Reserve.
n. having the same value, quality, meaning, purpose, etc.
22. The construction industry is labor although it has been somewhat automated by introducing large machinery.
adj. involving a lot of work or activity in a short time
23. He back in time to the soccer game.
v. to move along very quickly; (noun) the act of rising upward into the air
24. It is an incredible to climb Mount Everest, the highest mountain in the world.
n. a notable or impressive achievement, especially one that requires great skill or bravery
25 a society is an organism.
adv. relating to the essential features or concepts of anything
ANSWERS: 17. individually, 18. exerted, 19. property, 20. scope, 21. equivalent, 22. intensive, 23. zoomed, 24. feat, 25. Essentially,

process, 32. cylinders, 33. intricacy

ANSWERS: 26. calculated, 27. develop, 28. increasingly, 29. simplify, 30. entirely, 31.

ANSWERS: 34. mimic, 35. dimensions, 36. elaborate, 37. optical, 38. trade-off, 39. weighs, 40. minimal, 41. constraint

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

42.	The invention of the camera triggered the development of pa	ainting.		
adj.	based on general ideas, feelings, or qualities and not on any a physic concrete existence	al or		
43.	He walked a road to the railroad.			
adj.	being everywhere equidistant and not intersecting; of or relating to the simultaneous performance of multiple operations	е		
44.	University is a great place to our minds and expertise.			
v.	to prepare and foster land for growing crops or plants			
45.	They worked hard to the nature of their native lands.			
v.	to keep or maintain a particular quality, feature, etc., especially to prefrom decaying, being damaged, or being destroyed	vent it		
46.	Eyeless fish in dark caves.			
v.	to develop gradually, or to cause the development of something or so gradually	meone		
	The teacher asked the students to between the two si species of birds.	milar		
<i>v</i> .	to recognize or establish as being distinct; to distinguish between thir are compared; to calculate a derivative	igs that		
48.	The final result was nothing short of			
<i>v</i> .	to surprise or shock someone with wonder very much			
49.	There are various hypotheses concerning the of life.			
n.	the first existence or beginning of something			
ANSWERS: 42. abstract, 43. parallel, 44. cultivate, 45. preserve, 46. evolved, 47. differentiate, 48. astounding, 49. origin				

ANSWERS: 50. articulate, 51. permutations, 52. eventually, 53. labor, 54. geometric, 55. microscopic, 56. tradition

generation to generation within a group or society

ANSWERS: 57. algorithm, 58. involves, 59. illusion, 60. envision, 61. virtual, 62. await, 63. cubes, 64. breeds

65. N	lanagement must take responsibility for the accident.
adj.	furthest or highest in degree or order
66. T	he of the earth can be seen from space.
	the degree to which a line or surface deviates from being straight or flat; a measure of the amount of bending of a curve
67. T	he seating was filled with people waiting for the concert to begin.
n.	a room or building used for concerts, plays, or other public performances
68. T	his is the only strategy.
adj.	capable of being imagined
69	to the family, the treasure had been hidden in the attic for years.
	without the knowledge or awareness of someone; without someone's knowledge or participation
70. Ir	n junior high school, we had to dissect a frog in class.
n.	the scientific study of life and the natural processes of living things
	Defects in can lead to developmental abnormalities and ongenital disabilities.
	the biological process of growth, development, and differentiation of cells, tissues, and organs to give rise to the complex three-dimensional structures of living organisms
72. C	an you 123321 by eleven?
ν.	to separate or cause to separate into parts or groups
	WERS: 65. ultimate, 66. curvature, 67. auditorium, 68. imaginable, 69. eknownst, 70. biology, 71. morphogenesis, 72. divide

73. The consequences of the pandemic remain as scientists continue to research the virus.
adj. not seen or noticed; not perceived
74. I want to a toast in honor of our longstanding relationship. v. to make a proposal, declare a plan for something
 75. She couldn't whether to order the pizza or the pasta for dinner. ν. to make up someone's mind about something; to come to a conclusion or judgment after considering options
76. The mule is a between a male donkey and a female horse. adj. composed of different elements or mixed characters
77. The report divided the data into based on age, gender, and income level.n. a part or section of something; a distinct group within a larger whole
78. This container has a of 10 cubic meters.n. the amount of space occupied by an object or substance; the magnitude of sound
 79. The project's outlined the goals and requirements for the team to complete. n. a detailed description of the characteristics, features, or requirements of something, typically a product or system; a written statement that outlines the standards, procedures, or requirements for a project or job
 80. She's on the of adulthood. n. the floor or ground that forms the bottom of a doorway and offers support when passing through a doorway; the smallest detectable sensation
ANSWERS: 73. unseen, 74. propose, 75. decide, 76. hybrid, 77. segments, 78. volume, 79. specifications, 80. threshold

ANSWERS: 81. split, 82. possibility, 83. stack, 84. plot, 85. refer, 86. resolution, 87. architect

ANSWERS: 88. archetype, 89. render, 90. bias, 91. orchestrated, 92. random, 93. intrigues, 94. sculpting, 95. expounding

ANSWERS: 96. intersect, 97. discovery, 98. structural, 99. delight, 100. corresponding, 101. predictable, 102. structure, 103. asymmetric, 104. experiments

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

characterized by an uneven or unequal distribution or arrangement

104. His _____ showed highly positive results.

ANSWERS: 105. inspired, 106. ratio, 107. suddenly, 108. distinct, 109. X-ray, 110. columns, 111. variant, 112. remarkable

adj. worthy of attention because unusual or special

113.	We should start a discussion from scratch with no	ideas.
adj.	(of an idea or opinion) formed beforehand, especially without evident truth or usefulness	dence for its
114.	As the sun set, the colors of the sky merged with the cr beautiful orange and pink hue.	eating a
n.	the line at which the earth's surface and the sky appear to meet; interest or activity that can be anticipated	the range of
115.	The style of the building was a mix of modern an	d traditional.
adj.	of or relating to the design and construction of buildings and othe and the features and style of such structures	r structures
116.	Some herds have been observed to hundreds of kilomet	ers.
<i>v</i> .	to make or be capable of making anything longer or broader with breaking	out hurting or
117.	The minority believed in a set of unconventional religious pra	actices.
n.	a group of people who follow a particular religious or philosophica system, especially one that is regarded as outside the norm or m	
	I remembered that person and never forgot. immediately	
119.	Our team caught a of the world-class technique in this ga	ame.
n.	a brief or partial view; the act of seeing something or someone fo time or only partly	r a very short
120.	The algorithm always produces the same result finput.	or a given
adj.	characterized by an assumption of cause and effect and the abserved or randomness, often used to describe scientific or engineering c	
	SWERS: 113. preconceived, 114. horizon, 115. architectural, 116. s , 118. instantly, 119. glimpse, 120. deterministic	stretch, 117.

Vocab-Builder Ref from "Michael Hansmeyer: Building unimaginable shapes TED Talk" (120 words)
ANSWERS: