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Vocabulary Builder Reference from...

Evan Zodl: The unexpected math of origami | TED Talk

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

All Words

IMPORTANT

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Session 1: Word List

telescope

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

(1) a binocular **telescope**, (2) look through a **telescope**

This facility has the largest astronomical **telescope** in the country.

snap

v. to record on photographic film; to make a sudden, sharp sound; (noun) the act of catching an object with the hands

synonym: break, crack, fracture

(1) **snap** a whip, (2) **snap** judgment

She **snapped** a quick picture of the beautiful sunset before it disappeared.

sleeve

n. a part of a garment that covers all or part of an arm

synonym: arm covering, armband

(1) a wide **sleeve**, (2) **sleeve** length

He rolled up his **sleeves** to get ready to work.

massive

adj. enormous amount; very heavy and solid

synonym: enormous, giant, immense

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

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

shield

n. a protective covering or structure, especially in the past, that soldiers held in front of their bodies to protect themselves

synonym : guard, protection, safeguard

(1) a heat **shield**, (2) a **shield** for protecting against a bullet
Lead is an effective **shield** against X-rays, gamma rays, and other harmful radiation.

glare

v. to shine with a bright, harsh, or dazzling light; to stare fiercely or angrily, often with a piercing or threatening gaze; (noun) a strong, bright, and often harsh or uncomfortable light that can be blinding or difficult to look at directly

synonym : glower, stare, scowl

(1) the **glare** of the sun, (2) **glare** at my opponent

The sun **glared** down on us, making it difficult to see without squinting our eyes.

diameter

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

synonym : diam, width

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

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

rocket

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

synonym : projectile, missile

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

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

compact

adj. closely and firmly united or packed together, using very little space; smaller than is usual

synonym : packed, tight, consolidated

(1) a **compact** camera, (2) extremely **compact** device
Two countries acted together as if by **compact**.

ancient

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

synonym: archaic, age-old, obsolete

(1) pre-Christian **ancient**, (2) **ancient** stories
They have been living near water since **ancient** times.

origami

n. the Japanese art or practice of folding paper into decorative shapes and figures

synonym: paper folding, paper art

(1) **origami** paper, (2) **origami** art
I love making **origami** cranes during my free time.

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.

concept

n. an idea or principle associated with something abstract

synonym: idea, notion, vision

(1) learn new **concepts**, (2) **concept** car
One such rapidly growing **concept** is quantum cryptography.

yield

n. the total output of crops, profits, etc. that are produced;
(verb) to produce or supply helpful something, such as a profit, an amount of food, or information

synonym: proceeds, harvest, output

(1) corn **yield**, (2) the **yield** on the bond
The company's stock gives a high **yield**.

crane

n. a large, tall machine used for moving heavy objects by suspending them from a beam or hook

synonym: hoist, derrick, winch

(1) **crane** operator, (2) **crane** construction

The construction workers used a **crane** to lift the heavy beams.

dragon

n. a mythical monster typically depicted as a giant reptile with wings, claws, and a fiery breath often portrayed as being fierce and dangerous

synonym: wyvern, serpent, drake

(1) **dragon** fruit, (2) **dragon** wing

In Chinese mythology, **dragons** are considered powerful and benevolent creatures.

traditionally

adv. in accordance with tradition; typically or commonly done in a particular way

synonym: conventionally, commonly, generally

(1) **traditionally** accepted concept, (2) **traditionally** sung at a banquet

Traditionally, the ceremony was held outdoors.

transform

v. to change in outward structure or looks;

synonym: alter, convert, change

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

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

purity

n. the state of being undiluted or unmixed with anything else; the state of being free from immorality, especially of a sexual nature

synonym: sinlessness, innocence, cleanliness

(1) the degree of **purity**, (2) high **purity**

Higher **purity** requires additional equipment and energy.

unfold

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

synonym: open, spread out, expose

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

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

represent

v. to speak, act, or be present on behalf of another person or group; to form or constitute

synonym: depict, express, describe

(1) **represent** by a diagram, (2) the characters that **represent** numbers

We elected him to **represent** us at the international conference.

concave

adj. curving inward like the inside of a bowl

synonym: hollow, indented, sunken

(1) a **concave** lens, (2) **concave** surface

The bowl was **concave** and held the water perfectly.

valley

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

synonym: canyon, gorge, dale

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

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

convex

adj. having a surface or outline that curves outward, like the exterior of a ball; having a shape that bulges or curves outward

synonym: curved, arched, bulging

(1) **convex** mirror, (2) **convex** surface

The magnifying glass had a **convex** shape, allowing for a better view of the specimen.

arrange

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

synonym: set up, order, organize

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

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

crease

n. a line or mark made by folding or wrinkling a surface or material; a slight ridge or fold in fabric or paper caused by pressing or folding

synonym : fold, wrinkle, ridge

(1) **crease** in fabric, (2) deep **crease**

The shirt had a noticeable **crease** along the sleeve from being folded.

blueprint

n. a photographic print of an early plan for a building or machine

synonym : draft, prototype, sketch

(1) **blueprint** for economic reform, (2) architect's **blueprint**

A business plan is a **blueprint** for your success.

dimension

n. 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.

introductory

adj. intended as an introduction or preliminary; serving as a base or starting point

synonym : beginning, preliminary, initial

(1) **introductory** biology text, (2) product **introductory** sale

The **introductory** class was designed to give students a basic understanding of the subject.

mathematics

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

synonym : arithmetic, calculation, calculus

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

He has a flair for **mathematics**.

foldable

adj. able to be bent or folded without breaking; designed to fold up into a more compact shape for storage or transportation

synonym : foldaway, collapsible, portable

(1) **foldable** bike, (2) **foldable** table

The airline allows passengers to bring a **foldable** stroller on board.

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.

display

v. to exhibit or show something to others, often to attract attention or demonstrate its features, properties, or value

synonym : show, exhibit, present

(1) **display** merchandise, (2) **display** artwork

We need to **display** our products in an attractive way to attract customers.

interior

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

synonym : inner, inside, internal

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

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

vertex

n. the highest point or apex of something, typically used to describe the highest point of a geometric figure such as a vertex of a triangle or a pyramid

synonym : apex, summit, peak

(1) graph **vertex**, (2) **vertex** of a parabola

The **vertex** of the triangle is located at the top point.

differ

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

synonym : vary, diverge, disagree

(1) **differ** from the majority, (2) **differ** according to species
The two products **differed** in their quality and price.

clockwise

adv. in a circular direction that follows the course of a clock's hands or in a direction that is considered to be forward or positive

synonym: rightward, deasil

(1) rotate **clockwise**, (2) move **clockwise**

We need to turn the knob **clockwise** to lock the door.

counterclockwise

adv. in a direction opposite to the rotation of a clock's hands or opposite to the usual direction of movement or flow

synonym: anticlockwise, reversely

(1) move **counterclockwise**, (2) swirl **counterclockwise**

The carousel rotates **counterclockwise** at a slow pace.

degree

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

synonym: level, qualification, diploma

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

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

odd

adj. strange or unexpected; not divisible by two

synonym: strange, bizarre, abnormal

(1) in an **odd** way, (2) **odd** behavior

His grandfather was an **odd** man.

penetrate

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

synonym: pierce, stab, go through

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

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

representation

n. the act of speaking, acting, or being present on behalf of someone officially; a statement of facts and reasons

made in appealing or protesting

synonym: delegacy, manifestation, expression

(1) sales **representation**, (2) binary **representation**

A person who has been declared incompetent should have legal **representation**.

relation

n. the way two persons or groups of people feel and act toward one another

synonym: association, linkage, connection

(1) **relation** between cause and effect, (2) **relation** of inclusion

The industrial **relations** laws were passed with little to no alteration.

incredibly

adv. in a way that is very difficult to believe; exceedingly or extremely

synonym: enormously, exceptionally, extraordinarily

(1) **incredibly** cheerful character, (2) get **incredibly** insecure

Several cities are experiencing **incredibly** high unemployment rates.

complexity

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

synonym: intricacy, sophistication, elaboration

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

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

allocate

v. to give or distribute something, such as resources or duties, to someone or something for a particular purpose

synonym: apportion, assign, distribute

(1) **allocate** resource, (2) **allocate** budgets

The company **allocated** a portion of its profits to developing new products.

creature

n. a living being, especially an animal

synonym: being, animal, organism

(1) **creature** of habit, (2) artificial **creature**

The deep sea **creature** was unlike anything the scientists had ever seen before.

appendage

n. a part attached to the main body or structure, often with a specific function or purpose; a limb or other body part that projects outward from the main body

synonym: extension, limb, attachment

(1) spiny **appendage**, (2) mechanical **appendage**

The spider's **appendage** allowed it to climb up the wall easily.

separate

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

synonym: disunite, isolate, ramify

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

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

flap

n. a piece of material attached to a garment, sail, or aircraft which flaps in the wind; (verb) to move in a wavy pattern or with an up-and-down motion

synonym: winged object, cover, (verb) flutter

(1) the **flap** of wings, (2) **flap** out a candle

The **flap** of the tent was open, letting in the fresh air.

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** prototype

He spent hours every day **sculpting** figures out of clay.

scorpion

n. a small creature similar to an insect with a segmented body, a pair of pincers, and a long, thin tail that ends in a venomous sting

synonym: arachnid, stinger

(1) **scorpion** fish, (2) poisonous **scorpion**

The **scorpion's** venom can be lethal to humans.

duplicate

v. to make or be an exact copy of something; to reproduce something

synonym: copy, replicate, reproduce

(1) **duplicate** my efforts, (2) **duplicate** his action

I need to **duplicate** this document before I send it.

satisfy

v. to make somebody pleased by giving them what they want or need

synonym: please, amuse, meet

(1) **satisfy** a desire, (2) **satisfy** a user's needs

Did this response **satisfy** your request?

tessellation

n. a pattern consisting of a repeated geometric shape or motif that covers a surface entirely without any gaps or overlaps

synonym: tiling, mosaic, pattern

(1) geometric **tessellation**, (2) **tessellation** pattern

The **tessellation** on the floor created a beautiful pattern with interlocking shapes.

gap

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

synonym: opening, lacuna, spread

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

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

overlap

v. to partially cover something by going beyond its edge

synonym: overlay, cover, bespread

(1) **overlap** one another, (2) **overlap** in many areas

There was no **overlap** between their proposals.

vastness

n. the extent or size of something, often describing an ample space or area; the quality of being immense or

immense in scale

synonym: immensity, enormity, vastitude

(1) limitless **vastness**, (2) scenic **vastness**

The **vastness** of the ocean was awe-inspiring and humbling.

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.

principle

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

synonym: rule, creed, code

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

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

medical

adj. relating to the treatment of illness or injuries; relating to the practice of medicine

synonym: health, disease, treatment

(1) a **medical** opinion, (2) temporary **medical** treatment

The **medical** team worked quickly to save the patient's life.

engineer

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

synonym: architect, creator, builder

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

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

tradition

n. 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.

stent

n. a small tube or wire mesh device that is used to keep an artery or other body opening open after surgery or other medical procedures

(1) cardiac **stent**, (2) remove a **stent**

The doctor inserted a **stent** into the patient's artery to keep it open.

graft

n. a transplanted portion of tissue or skin, often taken from one part of the body and used to repair or replace damaged or missing tissue in another part; a corrupt or illegal means of acquiring wealth or power through illicit or unethical methods

synonym : transplant, implantation, bribery

(1) **graft** surgery, (2) anti- **graft** law

The patient's skin **graft** procedure was successful, and he was released from the hospital.

tube

n. a cylindrical container of metal, plastic, glass, etc., usually sealed and used as a means of preserving food or chemicals; a hollow cylindrical shape

synonym : pipe, hose, duct

(1) a capillary **tube**, (2) a glass **tube**

The **tube** train was packed with commuters during rush hour.

dam

n. a wall constructed over a river to block the flow of water, mainly used to generate energy

synonym : barricade, barrier, embankment

(1) **dam-building** program, (2) **dam** collapsing

The break in the **dam** threatened the valley.

vessel

n. a ship or large boat

synonym : boat, ship, craft

(1) blood **vessels**, (2) naval **vessels**

The **vessel** arrived in port the following day.

rigid

adj. extremely strict and difficult to change or adapt; incapable of or resistant to bending

synonym : strict, inflexible, stringent

(1) **rigid** rules, (2) **rigid** structure

He was unpopular because of his **rigid** adherence to the rules.

structure

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

synonym : construction, architecture, establishment

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

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

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.

airbag

n. a safety device designed to inflate rapidly in the event of a collision, protecting the occupants of a vehicle and reducing the risk of injury or death

synonym : air cushion, safety bag, crash bag

(1) defective **airbag**, (2) **airbag** deployment

The **airbag** system in the car saved the driver's life in a severe crash.

array

n. a large group or collection of things or people, especially one that is impressive or attractive

synonym : collection, display, batch

(1) a two-dimensional **array**, (2) an **array** of troops

The customer on the Internet has to choose one from a formidable **array** of products.

folding

adj. capable of being folded or bent; having one or more sections that can be folded or collapsed for easier storage or transportation

synonym : foldable, collapsible, bendable

(1) **folding** knife, (2) **folding** table

The **folding** chairs were easy to set up and take down for the event.

nanostructure

n. a structure that falls in between microscopic and molecular in size

(1) **nanostructure** material, (2) three-dimensional **nanostructure**

This feature of the material is a result of its **nanostructure**.

possibility

n. a chance that something may happen or be true

synonym : chance, prospect, likelihood

(1) **possibility** for growth, (2) **possibility** of a major earthquake

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

Session 2: Spelling

1. ri__d structure *adj.* extremely strict and difficult to change or adapt; incapable of or resistant to bending
2. tra_____lly sung at a banquet *adv.* in accordance with tradition; typically or commonly done in a particular way
3. di_____y merchandise *v.* to exhibit or show something to others, often to attract attention or demonstrate its features, properties, or value
4. tr_____rm an education system *v.* to change in outward structure or looks;
5. di___r from the majority *v.* to be not like someone or something in some way
6. bl_____nt for economic reform *n.* a photographic print of an early plan for a building or machine
7. geometric tes_____ion *n.* a pattern consisting of a repeated geometric shape or motif that covers a surface entirely without any gaps or overlaps
8. pr_____le in business *n.* a fundamental law or truth that explains or controls how something happens or works
9. a civil en_____er *n.* a person whose job is designing, building, or maintaining something such as machines, structures, or software
10. tr_____te the emotion to a movement *v.* to convert or change words into another language

ANSWERS: 1. rigid, 2. traditionally, 3. display, 4. transform, 5. differ, 6. blueprint, 7. tessellation, 8. principle, 9. engineer, 10. translate

11. fo____g table *adj.* capable of being folded or bent; having one or more sections that can be folded or collapsed for easier storage or transportation
12. tr_____te a document into English *v.* to convert or change words into another language
13. dr____n fruit *n.* a mythical monster typically depicted as a giant reptile with wings, claws, and a fiery breath often portrayed as being fierce and dangerous
14. anti-gr__t law *n.* a transplanted portion of tissue or skin, often taken from one part of the body and used to repair or replace damaged or missing tissue in another part; a corrupt or illegal means of acquiring wealth or power through illicit or unethical methods
15. s__p judgment *v.* to record on photographic film; to make a sudden, sharp sound; (noun) the act of catching an object with the hands
16. a glass t__e *n.* a cylindrical container of metal, plastic, glass, etc., usually sealed and used as a means of preserving food or chemicals; a hollow cylindrical shape
17. ov_____p one another *v.* to partially cover something by going beyond its edge
18. extremely co_____t device *adj.* closely and firmly united or packed together, using very little space; smaller than is usual
19. re_____on between cause and effect *n.* the way two persons or groups of people feel and act toward one another

ANSWERS: 11. folding, 12. translate, 13. dragon, 14. graft, 15. snap, 16. tube, 17. overlap, 18. compact, 19. relation

20. ov____p in many areas *v.* to partially cover something by going beyond its edge
21. co____t car *n.* an idea or principle associated with something abstract
22. defective ai____g *n.* a safety device designed to inflate rapidly in the event of a collision, protecting the occupants of a vehicle and reducing the risk of injury or death
23. pos____ty for growth *n.* a chance that something may happen or be true
24. architect's bl____nt *n.* a photographic print of an early plan for a building or machine
25. di____y artwork *v.* to exhibit or show something to others, often to attract attention or demonstrate its features, properties, or value
26. pos____ty of a major earthquake *n.* a chance that something may happen or be true
27. swirl cou_____ise *adv.* in a direction opposite to the rotation of a clock's hands or opposite to the usual direction of movement or flow
28. s__p a whip *v.* to record on photographic film; to make a sudden, sharp sound; (noun) the act of catching an object with the hands
29. move cou_____ise *adv.* in a direction opposite to the rotation of a clock's hands or opposite to the usual direction of movement or flow
30. cr__e operator *n.* a large, tall machine used for moving heavy objects by suspending them from a beam or hook

ANSWERS: 20. overlap, 21. concept, 22. airbag, 23. possibility, 24. blueprint, 25. display, 26. possibility, 27. counterclockwise, 28. snap, 29. counterclockwise, 30. crane

31. co____e surface *adj.* curving inward like the inside of a bowl
32. an____t stories *adj.* relating to the long ago, particularly the historical period preceding the fall of the Western Roman Empire; very old
33. st_____re and function of the brain *n.* the way of construction of something and the arrangement of its parts, or a complex thing constructed of many parts
34. limitless va_____ss *n.* the extent or size of something, often describing an ample space or area; the quality of being immense or immense in scale
35. fo_____g knife *adj.* capable of being folded or bent; having one or more sections that can be folded or collapsed for easier storage or transportation
36. artificial cr_____re *n.* a living being, especially an animal
37. a heat sh____d *n.* a protective covering or structure, especially in the past, that soldiers held in front of their bodies to protect themselves
38. a two-dimensional ar__y *n.* a large group or collection of things or people, especially one that is impressive or attractive
39. ve____x of a parabola *n.* the highest point or apex of something, typically used to describe the highest point of a geometric figure such as a vertex of a triangle or a pyramid
40. binary rep_____ion *n.* the act of speaking, acting, or being present on behalf of someone officially; a statement of facts and reasons made in appealing or protesting

ANSWERS: 31. concave, 32. ancient, 33. structure, 34. vastness, 35. folding, 36. creature, 37. shield, 38. array, 39. vertex, 40. representation

41. spiny ap_____ge *n.* a part attached to the main body or structure, often with a specific function or purpose; a limb or other body part that projects outward from the main body
42. ab_____ct science *adj.* based on general ideas, feelings, or qualities and not on any a physical or concrete existence
43. di_____er of an oval *n.* the length of a straight line passing through the center of a circle and connecting two points on the circumference
44. a tr_____on of a culture *n.* a belief, custom, or way of doing something that has been passed down from generation to generation within a group or society
45. the crosswise di_____on *n.* a measurable extent of a particular kind, such as width, height, or length
46. sa_____y a desire *v.* to make somebody pleased by giving them what they want or need
47. ex____d agricultural output *v.* to increase or to make something greater in size, number, or importance
48. de____e centigrade *n.* a unit of measurement for angles, temperature, or level of proficiency or achievement; a rank or level of academic or professional attainment
49. naval ve____ls *n.* a ship or large boat
50. graph ve____x *n.* the highest point or apex of something, typically used to describe the highest point of a geometric figure such as a vertex of a triangle or a pyramid

ANSWERS: 41. appendage, 42. abstract, 43. diameter, 44. tradition, 45. dimension, 46. satisfy, 47. expand, 48. degree, 49. vessel, 50. vertex

51. a sh___d for protecting against a bullet
n. a protective covering or structure, especially in the past, that soldiers held in front of their bodies to protect themselves
52. pre-Christian an____t
adj. relating to the long ago, particularly the historical period preceding the fall of the Western Roman Empire; very old
53. temporary me____l treatment
adj. relating to the treatment of illness or injuries; relating to the practice of medicine
54. al____te budgets
v. to give or distribute something, such as resources or duties, to someone or something for a particular purpose
55. an ar__y of troops
n. a large group or collection of things or people, especially one that is impressive or attractive
56. a me____l opinion
adj. relating to the treatment of illness or injuries; relating to the practice of medicine
57. sl___e length
n. a part of a garment that covers all or part of an arm
58. sa____y a user's needs
v. to make somebody pleased by giving them what they want or need
59. ri__d rules
adj. extremely strict and difficult to change or adapt; incapable of or resistant to bending
60. a co____e lens
adj. curving inward like the inside of a bowl
61. bachelor's de___e
n. a unit of measurement for angles, temperature, or level of proficiency or achievement; a rank or level of academic or professional attainment

ANSWERS: 51. shield, 52. ancient, 53. medical, 54. allocate, 55. array, 56. medical, 57. sleeve, 58. satisfy, 59. rigid, 60. concave, 61. degree

62. tr_____rm heat into power *v.* to change in outward structure or looks;
63. distance g_p *n.* a conspicuous disparity or difference separates something such as a figure, people, their opinions, situation, etc.
64. product int_____ory sale *adj.* intended as an introduction or preliminary; serving as a base or starting point
65. learn new co_____ts *n.* an idea or principle associated with something abstract
66. in_____or decoration *n.* the inside or inner part of something; the space within the walls of a building
67. du_____te my efforts *v.* to make or be an exact copy of something; to reproduce something
68. ma_____e stars *adj.* enormous amount; very heavy and solid
69. gr__t surgery *n.* a transplanted portion of tissue or skin, often taken from one part of the body and used to repair or replace damaged or missing tissue in another part; a corrupt or illegal means of acquiring wealth or power through illicit or unethical methods
70. in an o_d way *adj.* strange or unexpected; not divisible by two
71. a co_____t camera *adj.* closely and firmly united or packed together, using very little space; smaller than is usual
72. a good grounding in mat_____cs *n.* the science dealing with the logic of quantities, shapes, spaces, and arrangement

ANSWERS: 62. transform, 63. gap, 64. introductory, 65. concept, 66. interior, 67. duplicate, 68. massive, 69. graft, 70. odd, 71. compact, 72. mathematics

73. tra_____lly accepted concept *adv.* in accordance with tradition; typically or commonly done in a particular way
74. int_____ory biology text *adj.* intended as an introduction or preliminary; serving as a base or starting point
75. poisonous sc_____on *n.* a small creature similar to an insect with a segmented body, a pair of pincers, and a long, thin tail that ends in a venomous sting
76. ai___g deployment *n.* a safety device designed to inflate rapidly in the event of a collision, protecting the occupants of a vehicle and reducing the risk of injury or death
77. sc_____on fish *n.* a small creature similar to an insect with a segmented body, a pair of pincers, and a long, thin tail that ends in a venomous sting
78. new di_____on *n.* a measurable extent of a particular kind, such as width, height, or length
79. basin-shaped va_____y *n.* a long depression on the surface of the land, which typically contains a river
80. en_____er shortage *n.* a person whose job is designing, building, or maintaining something such as machines, structures, or software
81. move cl_____se *adv.* in a circular direction that follows the course of a clock's hands or in a direction that is considered to be forward or positive
82. corn yi__d *n.* the total output of crops, profits, etc. that are produced; (verb) to produce or supply helpful something, such as a profit, an amount of food, or information

ANSWERS: 73. traditionally, 74. introductory, 75. scorpion, 76. airbag, 77. scorpion, 78. dimension, 79. valley, 80. engineer, 81. clockwise, 82. yield

83. o_d behavior *adj.* strange or unexpected; not divisible by two
84. com_____ty theory *n.* the state or quality of being complicated or intricate and difficult to understand
85. nan_____ure material *n.* a structure that falls in between microscopic and molecular in size
86. or_____i art *n.* the Japanese art or practice of folding paper into decorative shapes and figures
87. mic_____ic analysis *adj.* tiny; exceedingly precise and detail-oriented; of or used in microscopy
88. plenty of in_____or space *n.* the inside or inner part of something; the space within the walls of a building
89. ar_____e the meeting *v.* to plan, prepare for, and carry out something
90. a binocular te_____pe *n.* a device like a tube in shape containing lenses used to magnify and observe distant objects
91. an ab_____ct noun *adj.* based on general ideas, feelings, or qualities and not on any a physical or concrete existence
92. re_____nt by a diagram *v.* to speak, act, or be present on behalf of another person or group; to form or constitute
93. mechanical ap_____ge *n.* a part attached to the main body or structure, often with a specific function or purpose; a limb or other body part that projects outward from the main body

ANSWERS: 83. odd, 84. complexity, 85. nanostructure, 86. origami, 87. microscopic, 88. interior, 89. arrange, 90. telescope, 91. abstract, 92. represent, 93. appendage

94. du_____te his action *v.* to make or be an exact copy of something; to reproduce something
95. un___d the stroller *v.* to open up or spread out something that is folded or rolled up; to reveal or disclose something that was previously hidden or unknown
96. the degree of pu___y *n.* the state of being undiluted or unmixed with anything else; the state of being free from immorality, especially of a sexual nature
97. co___x mirror *adj.* having a surface or outline that curves outward, like the exterior of a ball; having a shape that bulges or curves outward
98. three-dimensional nan_____ure *n.* a structure that falls in between microscopic and molecular in size
99. d_m collapsing *n.* a wall constructed over a river to block the flow of water, mainly used to generate energy
100. re_____on of inclusion *n.* the way two persons or groups of people feel and act toward one another
101. pe_____te quickly into the skin *v.* to pass into or through something, often by overcoming resistance
102. rotate cl_____se *adv.* in a circular direction that follows the course of a clock's hands or in a direction that is considered to be forward or positive
103. dr___n wing *n.* a mythical monster typically depicted as a giant reptile with wings, claws, and a fiery breath often portrayed as being fierce and dangerous

ANSWERS: 94. duplicate, 95. unfold, 96. purity, 97. convex, 98. nanostructure, 99. dam, 100. relation, 101. penetrate, 102. clockwise, 103. dragon

104. cr____re of habit *n.* a living being, especially an animal
105. inc_____ly cheerful character *adv.* in a way that is very difficult to believe; exceedingly or extremely
106. remove a st__t *n.* a small tube or wire mesh device that is used to keep an artery or other body opening open after surgery or other medical procedures
107. a wide sl____e *n.* a part of a garment that covers all or part of an arm
108. ro____t attack against the enemy *n.* a large tube-shaped object that moves very first by a stream of gases let out behind it, used for space travel or as a weapon
109. the gl__e of the sun *v.* to shine with a bright, harsh, or dazzling light; to stare fiercely or angrily, often with a piercing or threatening gaze; (noun) a strong, bright, and often harsh or uncomfortable light that can be blinding or difficult to look at directly
110. pr_____le of treatment *n.* a fundamental law or truth that explains or controls how something happens or works
111. the characters that re_____nt numbers *v.* to speak, act, or be present on behalf of another person or group; to form or constitute
112. mic_____ic inquiry *adj.* tiny; exceedingly precise and detail-oriented; of or used in microscopy
113. blood ve____ls *n.* a ship or large boat

ANSWERS: 104. creature, 105. incredibly, 106. stent, 107. sleeve, 108. rocket, 109. glare, 110. principle, 111. represent, 112. microscopic, 113. vessel

114. the st_____re of a machine *n.* the way of construction of something and the arrangement of its parts, or a complex thing constructed of many parts
115. cr___e in fabric *n.* a line or mark made by folding or wrinkling a surface or material; a slight ridge or fold in fabric or paper caused by pressing or folding
116. d_m-building program *n.* a wall constructed over a river to block the flow of water, mainly used to generate energy
117. pe_____te a cell *v.* to pass into or through something, often by overcoming resistance
118. cardiac st__t *n.* a small tube or wire mesh device that is used to keep an artery or other body opening open after surgery or other medical procedures
119. high pu___y *n.* the state of being undiluted or unmixed with anything else; the state of being free from immorality, especially of a sexual nature
120. f__p out a candle *n.* a piece of material attached to a garment, sail, or aircraft which flaps in the wind; (verb) to move in a wavy pattern or with an up-and-down motion
121. un___d the story *v.* to open up or spread out something that is folded or rolled up; to reveal or disclose something that was previously hidden or unknown
122. ma_____e amounts *adj.* enormous amount; very heavy and solid

ANSWERS: 114. structure, 115. crease, 116. dam, 117. penetrate, 118. stent, 119. purity, 120. flap, 121. unfold, 122. massive

123. sc___t an image *v.* to create a work of art by carving, casting, or other shaping techniques
124. the f__p of wings *n.* a piece of material attached to a garment, sail, or aircraft which flaps in the wind; (verb) to move in a wavy pattern or with an up-and-down motion
125. the yi__d on the bond *n.* the total output of crops, profits, etc. that are produced; (verb) to produce or supply helpful something, such as a profit, an amount of food, or information
126. mat_____cs competition *n.* the science dealing with the logic of quantities, shapes, spaces, and arrangement
127. ro___t fuel *n.* a large tube-shaped object that moves very first by a stream of gases let out behind it, used for space travel or as a weapon
128. va___y bottom *n.* a long depression on the surface of the land, which typically contains a river
129. al_____te resource *v.* to give or distribute something, such as resources or duties, to someone or something for a particular purpose
130. gl__e at my opponent *v.* to shine with a bright, harsh, or dazzling light; to stare fiercely or angrily, often with a piercing or threatening gaze; (noun) a strong, bright, and often harsh or uncomfortable light that can be blinding or difficult to look at directly
131. scenic va_____ss *n.* the extent or size of something, often describing an ample space or area; the quality of being immense or immense in scale

ANSWERS: 123. sculpt, 124. flap, 125. yield, 126. mathematics, 127. rocket, 128. valley, 129. allocate, 130. glare, 131. vastness

132. look through a te_____pe *n.* a device like a tube in shape containing lenses used to magnify and observe distant objects
133. ex___d a lineup *v.* to increase or to make something greater in size, number, or importance
134. deep cr___e *n.* a line or mark made by folding or wrinkling a surface or material; a slight ridge or fold in fabric or paper caused by pressing or folding
135. sales rep_____ion *n.* the act of speaking, acting, or being present on behalf of someone officially; a statement of facts and reasons made in appealing or protesting
136. di___r according to species *v.* to be not like someone or something in some way
137. cr___e construction *n.* a large, tall machine used for moving heavy objects by suspending them from a beam or hook
138. fo_____le table *adj.* able to be bent or folded without breaking; designed to fold up into a more compact shape for storage or transportation
139. a capillary t___e *n.* a cylindrical container of metal, plastic, glass, etc., usually sealed and used as a means of preserving food or chemicals; a hollow cylindrical shape
140. se_____te video into chapter *v.* to force, take, or pull apart; mark as different
141. a particle di_____er *n.* the length of a straight line passing through the center of a circle and connecting two points on the circumference

ANSWERS: 132. telescope, 133. expand, 134. crease, 135. representation, 136. differ, 137. crane, 138. foldable, 139. tube, 140. separate, 141. diameter

142. sc___t prototype *v.* to create a work of art by carving, casting, or other shaping techniques
143. fo_____le bike *adj.* able to be bent or folded without breaking; designed to fold up into a more compact shape for storage or transportation
144. against tr_____on *n.* a belief, custom, or way of doing something that has been passed down from generation to generation within a group or society
145. get inc_____ly insecure *adv.* in a way that is very difficult to believe; exceedingly or extremely
146. co___x surface *adj.* having a surface or outline that curves outward, like the exterior of a ball; having a shape that bulges or curves outward
147. cognitive com_____ty *n.* the state or quality of being complicated or intricate and difficult to understand
148. the list was ar_____ed alphabetically *v.* to plan, prepare for, and carry out something
149. se_____te cream from milk *v.* to force, take, or pull apart; mark as different
150. the g_p between ideal and reality *n.* a conspicuous disparity or difference separates something such as a figure, people, their opinions, situation, etc.
151. tes_____ion pattern *n.* a pattern consisting of a repeated geometric shape or motif that covers a surface entirely without any gaps or overlaps

ANSWERS: 142. sculpt, 143. foldable, 144. tradition, 145. incredibly, 146. convex, 147. complexity, 148. arrange, 149. separate, 150. gap, 151. tessellation

152. or____i paper

n. the Japanese art or practice of folding paper into decorative shapes and figures

ANSWERS: 152. origami

Session 3: Fill in the Blanks

1. My father's death _____ my life completely.
v. to change in outward structure or looks;
2. The sun _____ down on us, making it difficult to see without squinting our eyes.
v. to shine with a bright, harsh, or dazzling light; to stare fiercely or angrily, often with a piercing or threatening gaze; (noun) a strong, bright, and often harsh or uncomfortable light that can be blinding or difficult to look at directly
3. Did this response _____ your request?
v. to make somebody pleased by giving them what they want or need
4. He rolled up his _____ to get ready to work.
n. a part of a garment that covers all or part of an arm
5. I need to _____ plans with him for the celebration.
v. to plan, prepare for, and carry out something
6. It is a _____ in many families to have a big Thanksgiving dinner with all their relatives.
n. a belief, custom, or way of doing something that has been passed down from generation to generation within a group or society
7. The company _____ a portion of its profits to developing new products.
v. to give or distribute something, such as resources or duties, to someone or something for a particular purpose
8. The _____ of the tent was open, letting in the fresh air.
n. a piece of material attached to a garment, sail, or aircraft which flaps in the wind; (verb) to move in a wavy pattern or with an up-and-down motion

ANSWERS: 1. transformed, 2. glared, 3. satisfy, 4. sleeves, 5. arrange, 6. tradition, 7. allocated, 8. flap

9. The _____ of getting the disease will drastically increase.
n. a chance that something may happen or be true
10. The spider's _____ allowed it to climb up the wall easily.
n. a part attached to the main body or structure, often with a specific function or purpose; a limb or other body part that projects outward from the main body
11. This feature of the material is a result of its _____.
n. a structure that falls in between microscopic and molecular in size
12. In Chinese mythology, _____ are considered powerful and benevolent creatures.
n. a mythical monster typically depicted as a giant reptile with wings, claws, and a fiery breath often portrayed as being fierce and dangerous
13. The _____ on the floor created a beautiful pattern with interlocking shapes.
n. a pattern consisting of a repeated geometric shape or motif that covers a surface entirely without any gaps or overlaps
14. _____ the text from Italian into English.
v. to convert or change words into another language
15. The _____ train was packed with commuters during rush hour.
n. a cylindrical container of metal, plastic, glass, etc., usually sealed and used as a means of preserving food or chemicals; a hollow cylindrical shape
16. He has a flair for _____.
n. the science dealing with the logic of quantities, shapes, spaces, and arrangement

ANSWERS: 9. possibility, 10. appendage, 11. nanostructure, 12. dragons, 13. tessellation, 14. Translate, 15. tube, 16. mathematics

17. The shirt had a noticeable _____ along the sleeve from being folded.
n. a line or mark made by folding or wrinkling a surface or material; a slight ridge or fold in fabric or paper caused by pressing or folding
18. I love making _____ cranes during my free time.
n. the Japanese art or practice of folding paper into decorative shapes and figures
19. Higher _____ requires additional equipment and energy.
n. the state of being undiluted or unmixed with anything else; the state of being free from immorality, especially of a sexual nature
20. Many people are working together to close the gender _____.
n. a conspicuous disparity or difference separates something such as a figure, people, their opinions, situation, etc.
21. We elected him to _____ us at the international conference.
v. to speak, act, or be present on behalf of another person or group; to form or constitute
22. The bowl was _____ and held the water perfectly.
adj. curving inward like the inside of a bowl
23. The airline allows passengers to bring a _____ stroller on board.
adj. able to be bent or folded without breaking; designed to fold up into a more compact shape for storage or transportation
24. The customer on the Internet has to choose one from a formidable _____ of products.
n. a large group or collection of things or people, especially one that is impressive or attractive

ANSWERS: 17. crease, 18. origami, 19. purity, 20. gap, 21. represent, 22. concave, 23. foldable, 24. array

25. A business plan is a _____ for your success.

n. a photographic print of an early plan for a building or machine

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

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

27. They have been living near water since _____ times.

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

28. The patient's skin _____ procedure was successful, and he was released from the hospital.

n. a transplanted portion of tissue or skin, often taken from one part of the body and used to repair or replace damaged or missing tissue in another part; a corrupt or illegal means of acquiring wealth or power through illicit or unethical methods

29. The carousel rotates _____ at a slow pace.

adv. in a direction opposite to the rotation of a clock's hands or opposite to the usual direction of movement or flow

30. He was unpopular because of his _____ adherence to the rules.

adj. extremely strict and difficult to change or adapt; incapable of or resistant to bending

31. The _____ team worked quickly to save the patient's life.

adj. relating to the treatment of illness or injuries; relating to the practice of medicine

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

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

ANSWERS: 25. blueprint, 26. unfolded, 27. ancient, 28. graft, 29. counterclockwise, 30. rigid, 31. medical, 32. interiors

33. A person who has been declared incompetent should have legal _____.

- n.* the act of speaking, acting, or being present on behalf of someone officially; a statement of facts and reasons made in appealing or protesting

34. His grandfather was an ____ man.

- adj.* strange or unexpected; not divisible by two

35. Efficiency isn't an essential _____ here; fairness is.

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

36. The construction workers used a _____ to lift the heavy beams.

- n.* a large, tall machine used for moving heavy objects by suspending them from a beam or hook

37. The break in the ____ threatened the valley.

- n.* a wall constructed over a river to block the flow of water, mainly used to generate energy

38. The _____ will repair my telephone tomorrow morning.

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

39. The _____ launch platform is visible from this hill.

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

40. This facility has the largest astronomical _____ in the country.

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

ANSWERS: 33. representation, 34. odd, 35. principle, 36. crane, 37. dam, 38. engineer, 39. rocket, 40. telescope

41. The _____ system in the car saved the driver's life in a severe crash.
n. a safety device designed to inflate rapidly in the event of a collision, protecting the occupants of a vehicle and reducing the risk of injury or death
42. The invention of the camera triggered the development of _____ painting.
adj. based on general ideas, feelings, or qualities and not on any a physical or concrete existence
43. We need to turn the knob _____ to lock the door.
adv. in a circular direction that follows the course of a clock's hands or in a direction that is considered to be forward or positive
44. She received her _____ in psychology from the university.
n. a unit of measurement for angles, temperature, or level of proficiency or achievement; a rank or level of academic or professional attainment
45. She _____ a quick picture of the beautiful sunset before it disappeared.
v. to record on photographic film; to make a sudden, sharp sound; (noun) the act of catching an object with the hands
46. The company's stock gives a high _____.
n. the total output of crops, profits, etc. that are produced; (verb) to produce or supply helpful something, such as a profit, an amount of food, or information
47. The magnifying glass had a _____ shape, allowing for a better view of the specimen.
adj. having a surface or outline that curves outward, like the exterior of a ball; having a shape that bulges or curves outward
48. The organizational _____ of start-ups is often flat and straightforward.
n. the way of construction of something and the arrangement of its parts, or a complex thing constructed of many parts

ANSWERS: 41. airbag, 42. abstract, 43. clockwise, 44. degree, 45. snapped, 46. yield, 47. convex, 48. structure

49. Lead is an effective _____ against X-rays, gamma rays, and other harmful radiation.
- n.* a protective covering or structure, especially in the past, that soldiers held in front of their bodies to protect themselves
50. The two products _____ in their quality and price.
- v.* to be not like someone or something in some way
51. The _____ of the ocean was awe-inspiring and humbling.
- n.* the extent or size of something, often describing an ample space or area; the quality of being immense or immense in scale
52. The _____ had received a mild snowfall the previous week.
- n.* a long depression on the surface of the land, which typically contains a river
53. The _____ arrived in port the following day.
- n.* a ship or large boat
54. The _____ venom can be lethal to humans.
- n.* a small creature similar to an insect with a segmented body, a pair of pincers, and a long, thin tail that ends in a venomous sting
55. The recent economic downturn has resulted in _____ layoffs.
- adj.* enormous amount; very heavy and solid
56. The project's _____ made it difficult for the team to complete it on time.
- n.* the state or quality of being complicated or intricate and difficult to understand
57. The _____ chairs were easy to set up and take down for the event.
- adj.* capable of being folded or bent; having one or more sections that can be folded or collapsed for easier storage or transportation

ANSWERS: 49. shield, 50. differed, 51. vastness, 52. valley, 53. vessel, 54. scorpion's, 55. massive, 56. complexity, 57. folding

58. Draw a circle five centimeters in _____.
- n.* the length of a straight line passing through the center of a circle and connecting two points on the circumference
59. The _____ of the triangle is located at the top point.
- n.* the highest point or apex of something, typically used to describe the highest point of a geometric figure such as a vertex of a triangle or a pyramid
60. I need to _____ this document before I send it.
- v.* to make or be an exact copy of something; to reproduce something
61. One such rapidly growing _____ is quantum cryptography.
- n.* an idea or principle associated with something abstract
62. Overall _____ are approximately 400x200mm.
- n.* a measurable extent of a particular kind, such as width, height, or length
63. We need to _____ the aspect of his personality from the part of his competence when making an investment decision.
- v.* to force, take, or pull apart; mark as different
64. The _____ class was designed to give students a basic understanding of the subject.
- adj.* intended as an introduction or preliminary; serving as a base or starting point
65. Inspectors noticed _____ cracks in the submarine's hull.
- adj.* tiny; exceedingly precise and detail-oriented; of or used in microscopy
66. Western ideology slowly _____ through the eastern countries.
- v.* to pass into or through something, often by overcoming resistance

ANSWERS: 58. diameter, 59. vertex, 60. duplicate, 61. concept, 62. dimensions, 63. separate, 64. introductory, 65. microscopic, 66. penetrates

67. The deep sea _____ was unlike anything the scientists had ever seen before.

n. a living being, especially an animal

68. They hope to _____ their business worldwide.

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

69. Two countries acted together as if by _____.

adj. closely and firmly united or packed together, using very little space; smaller than is usual

70. We need to _____ our products in an attractive way to attract customers.

v. to exhibit or show something to others, often to attract attention or demonstrate its features, properties, or value

71. The industrial _____ laws were passed with little to no alteration.

n. the way two persons or groups of people feel and act toward one another

72. _____ the ceremony was held outdoors.

adv. in accordance with tradition; typically or commonly done in a particular way

73. The doctor inserted a _____ into the patient's artery to keep it open.

n. a small tube or wire mesh device that is used to keep an artery or other body opening open after surgery or other medical procedures

74. There was no _____ between their proposals.

v. to partially cover something by going beyond its edge

75. He spent hours every day _____ figures out of clay.

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

ANSWERS: 67. creature, 68. expand, 69. compact, 70. display, 71. relations, 72. Traditionally, 73. stent, 74. overlap, 75. sculpting

76. Several cities are experiencing _____ high unemployment rates.

adv. in a way that is very difficult to believe; exceedingly or extremely

ANSWERS: 76. incredibly