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Vocabulary Builder Reference from...

Marusa Brada: The science of snowflakes | TED Talk

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

All Words

IMPORTANT

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Session 1: Word List

gaze

v. to stare at something or someone for an extended time, usually out of surprise or adoration, or because you are thinking about something else

synonym : stare, gawk, look

(1) **gaze** steadily at his face, (2) **gaze** absently out a window

The youngster was **gazed** at by the beast.

snowflake

n. a small, thin, delicate piece of snow; a person, especially a young person, who is perceived as overly sensitive, easily offended, or with an inflated sense of entitlement

synonym : flake, crystal, ice pellet

(1) delicate **snowflake**, (2) **snowflake** pattern

The Christmas tree was beautifully decorated with delicate **snowflake** ornaments.

glove

n. a piece of clothing worn on the hand and wrist for protection against cold, dirt, etc., with separate parts for each finger

synonym : mitt

(1) a right-hand **glove**, (2) 5-finger **glove**

She was wearing a black **glove**.

examine

v. to study or consider a person or object attentively and thoroughly to learn something about them

synonym : study, probe, analyze

(1) **examine** the data studiously, (2) **examine** the issue

Initially, we must **examine** all project-related expenses.

symmetrical

adj. having similarity in size, shape, and relative position of corresponding parts

synonym : harmonious, balanced, proportional

(1) **symmetrical** triangle, (2) **symmetrical** pattern

This figure is **symmetrical** about the x-axis.

cube

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

synonym : block, square, cell

(1) **cube** root, (2) ice **cube**

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

freezer

n. a device that keeps food, beverages, or other perishable items at low temperatures to maintain their freshness or preserve them for later use

synonym : refrigerator, icebox, cooler

(1) portable **freezer**, (2) **freezer** bag

I put the ice cream in the **freezer** to keep it from melting.

liquid

n. a substance, such as water or oil that flows freely and is neither a solid nor a gas

synonym : fluid

(1) colorless **liquid**, (2) hazardous **liquid**

The sponge takes up the **liquid** well.

solid

adj. hard or firm; characterized by good substantial quality

synonym : stable, reliable, hard

(1) **solid** ally, (2) **solid** employment measures

The **solid-state** of water is called ice.

vapor

n. a mass of tiny liquid drops in the air

synonym : condensation, dew, fog

(1) alcohol **vapor**, (2) water **vapor** in the atmosphere

Clouds form when water **vapor** rises to the upper atmosphere.

straight

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

synonym : linear, honest, consecutive

(1) a **straight** line, (2) **straight** for two months

He was sick for five **straight** days.

delve

v. to dig or excavate deeply; to investigate or research intensively; to rummage or explore in a thorough or careful manner

synonym : dig, excavate, uncover

(1) **delve** deeper, (2) **delve** into documents

Researchers must **delve** into the intricacies of the human brain to understand mental illness.

physics

n. the science of matter and energy and their interactions

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

He studied the **physics** of radiation.

hydrogen

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

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

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

atom

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

synonym : particle, element, fraction

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

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

oxygen

n. the chemical element with the symbol O that is present in air and water and is necessary for people, animals, and plants to live

(1) the hydrogen binds the **oxygen**, (2) lack of **oxygen**

The passenger grabbed for the **oxygen** mask.

molecule

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

synonym : particle, element, atom

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

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

proton

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

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

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

electron

n. a tiny particle with the negative electrical charge

synonym : negatron

(1) flow of **electrons**, (2) beam of **electrons**

The outermost **electron** shell determines the chemical properties of an atom.

shell

n. hard outer covering or case of eggs, nuts, some seeds, and some animals

synonym : ammunition, armor, cover

(1) an egg **shell**, (2) a mollusk **shell**

The outermost electron **shell** determines the chemical properties of an atom.

bond

n. a close emotional connection between two or more people; a certificate of debt that a government or corporation issues to raise money

synonym : bind, adhesion, attachment

(1) **bond** as a family, (2) global **bond** market

They had formed a friendship **bond**.

covalent

adj. pertaining to or characterized by the sharing of electron pairs between atoms in a molecule, resulting in the formation of a covalent bond

synonym : shared, bonded, molecular

(1) **covalent** interaction, (2) **covalent** compound

In chemistry, **covalent** bonding involves the sharing of electrons between atoms.

negative

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

synonym : minus, adverse, pessimistic

(1) have a **negative** effect, (2) a **negative** number

The movie has received almost universally **negative** criticism.

repel

v. to force an attack or attacker to withdraw or retreat

synonym : turn away, fight off, force back

(1) **repel** bandits, (2) **repel** bad luck

This material can **repel** moisture swiftly.

repulsion

n. a feeling of intense disgust or dislike; a physical force that resists the approach or contact of two objects

synonym : dislike, disgust, repugnance

(1) **repulsion** force, (2) sense of **repulsion**

The sight of spiders fills me with **repulsion**.

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.

electrical

adj. relating to electricity

(1) an **electrical** storm, (2) degree in **electrical** engineering

Actuators convert **electrical** pulses into motion.

neutral

adj. not helping or assisting either side in a conflict, argument, etc.

synonym : impartial, uninvolved, halfhearted

(1) permanently **neutral** country, (2) **neutral** colors

A legislative speaker should always be **neutral**.

slightly

adv. in a small degree or extent; a little

synonym : barely, narrowly, scarcely

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

He moved his body **slightly** to the left.

attract

v. to draw or entice someone or something towards them through the qualities they have, especially positive ones

synonym : lure, entice, draw in

(1) **attract** attention, (2) **attract** customers

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

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.

hexagon

n. a six-sided polygon with six angles and six sides of equal length

synonym : hexahedron, six-sided figure, six-gon

(1) **hexagon** head bolt, (2) **hexagon** pattern

The honeycomb structure of a beehive is made up of **hexagons**.

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.

retain

v. to keep or continue to possess or maintain something

synonym: possess, hold, keep on

(1) **retain** information, (2) **retain** a lawyer

Computers help people **retain** specific memories.

stick

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

synonym: pierce, adhere, stay

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

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

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.

outward

adj. relating to the external appearance or surface of something; visible

synonym: external, surface, exterior

(1) an **outward** journey, (2) **outward** cheerfulness

The **outward** appearance of the building was impressive, but the inside was in dire need of repairs.

develop

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

synonym: evolve, progress, advance

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

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

atmospheric

adj. about or located in the earth's atmosphere

synonym: atmospherical, climatic

(1) doubling of **atmospheric** carbon dioxide,

(2) **atmospheric** pressure

The sea surface temperature and **atmospheric** circulation are inextricably linked.

humidity

n. the amount of water vapor in the air, typically as a percentage of the maximum that the air could hold at that temperature

synonym: moisture, dampness, wetness

(1) uncomfortable **humidity**, (2) **humidity** sensor

The **humidity** in the tropical forest was so high that it was hard to breathe.

temperature

n. the degree of hotness or coldness of a thing or place

synonym: climate, warmth, degree

(1) extreme **temperatures**, (2) the atmospheric **temperature**

Cities around the world set records for highest **temperatures** this summer.

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.

symmetry

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

synonym : balance, proportion, harmoniousness

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

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

critic

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

synonym : pundit, analyst, attacker

(1) art **critic**, (2) severe **critic**

Advocates for legal reform hear less harsh words from their **critics**.

wintry

adj. relating to or characteristic of winter, including snow, ice, cold temperatures, and short days; bleak or cold in appearance, feeling, or behavior

synonym : cold, icy, snowy

(1) **wintry** weather, (2) **wintry** scenery

The children built a **wintry** snowman in the backyard.

friction

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

synonym : rub, scrape, resistance

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

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

jagged

adj. having a rough and sharply uneven surface or outline

synonym : bumpy, irregular, craggy

(1) **jagged** edges, (2) the **jagged** outline of the crags

There are several **jagged** limestone peaks throughout the mountains.

rub

v. to move one's hand or an object over the surface of something with pressure

synonym : scrub, massage, stroke

(1) **rub** shoulders, (2) **rub** a glass window
She **rubbed** the sore spot on her leg to ease the pain.

slide

v. to move or cause to move smoothly along a surface without interruption

synonym : glide, drift, drop

(1) **slide** a card across the table, (2) **slide** a glance
If necessary, you can **slide** the front seats forward.

technique

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

synonym : approach, procedure, strategy

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

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

definitely

adv. without any question and beyond doubt; clearly

synonym : absolutely, certainly, indeed

(1) **definitely** become a problem, (2) say **definitely**

The paper is **definitely** worth reading thoroughly.

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.

mystery

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

synonym : enigma, puzzle, secret

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

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

branch

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

synonym : limb, twig, bough

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

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

fractal

n. a complex geometric pattern or shape that repeats itself on smaller and smaller scales, often occurring in nature or mathematical equations

synonym : pattern, design, geometry

(1) **fractal** pattern, (2) **fractal** art

The coastline of Norway is one of the most famous examples of **fractal** geometry in nature.

Session 2: Spelling

1. hu____ty sensor *n.* the amount of water vapor in the air, typically as a percentage of the maximum that the air could hold at that temperature

2. the hydrogen binds the ox___n *n.* the chemical element with the symbol O that is present in air and water and is necessary for people, animals, and plants to live

3. b__d as a family *n.* a close emotional connection between two or more people; a certificate of debt that a government or corporation issues to raise money

4. portable fr____r *n.* a device that keeps food, beverages, or other perishable items at low temperatures to maintain their freshness or preserve them for later use

5. re___n information *v.* to keep or continue to possess or maintain something

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

7. ja____d edges *adj.* having a rough and sharply uneven surface or outline

8. at____t attention *v.* to draw or entice someone or something towards them through the qualities they have, especially positive ones

ANSWERS: 1. humidity, 2. oxygen, 3. bond, 4. freezer, 5. retain, 6. stick, 7. jagged, 8. attract

9. extreme tem_____res *n.* the degree of hotness or coldness of a thing or place
10. pr___n conductivity *n.* a very small particle with a positive charge equal to the negative charge of an electron that forms part of the nucleus of all atoms
11. c__e 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
12. br___h office *n.* a division of a tree or woody shrub that grows out from the trunk or a main stem; a division of some larger or more complex organization
13. surface fr_____on *n.* the force that opposes motion between two objects in contact, especially by producing heat and wear, and is proportional to the normal force between the objects
14. neutral hydrogen a__ms *n.* the smallest unit of ordinary matter that forms a chemical element, composed of a nucleus and one or more electrons bound to the nucleus
15. fr_____l art *n.* a complex geometric pattern or shape that repeats itself on smaller and smaller scales, often occurring in nature or mathematical equations
16. sym_____al pattern *adj.* having similarity in size, shape, and relative position of corresponding parts

ANSWERS: 9. temperature, 10. proton, 11. cube, 12. branch, 13. friction, 14. atom, 15. fractal, 16. symmetrical

17. sl____ly alkaline soils *adv.* in a small degree or extent; a little
18. de__e deeper *v.* to dig or excavate deeply; to investigate or research intensively; to rummage or explore in a thorough or careful manner
19. re__l bad luck *v.* to force an attack or attacker to withdraw or retreat
20. ice c__e *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
21. ne____l colors *adj.* not helping or assisting either side in a conflict, argument, etc.
22. the ul____te luxury *adj.* furthest or highest in degree or order
23. 5-finger gl__e *n.* a piece of clothing worn on the hand and wrist for protection against cold, dirt, etc., with separate parts for each finger
24. the ja____d outline of the crags *adj.* having a rough and sharply uneven surface or outline
25. dif____ate a function *v.* to recognize or establish as being distinct; to distinguish between things that are compared; to calculate a derivative
26. ex____d agricultural output *v.* to increase or to make something greater in size, number, or importance
27. alcohol va__r *n.* a mass of tiny liquid drops in the air
28. de____p a skill *v.* to grow or expand; to improve or refine through a process of progress and refinement, often to achieve greater sophistication or complexity; to elaborate or add detail to something that is in the process of being created

ANSWERS: 17. slightly, 18. delve, 19. repel, 20. cube, 21. neutral, 22. ultimate, 23. glove, 24. jagged, 25. differentiate, 26. expand, 27. vapor, 28. develop

29. doubling of atm_____ic carbon dioxide *adj.* about or located in the earth's atmosphere
30. sl__e a glance *v.* to move or cause to move smoothly along a surface without interruption
31. 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
32. ex_____e the issue *v.* to study or consider a person or object attentively and thoroughly to learn something about them
33. atm_____ic pressure *adj.* about or located in the earth's atmosphere
34. re_____on force *n.* a feeling of intense disgust or dislike; a physical force that resists the approach or contact of two objects
35. unsolved my_____y *n.* something difficult to understand or explain; a secret or enigmatic quality that adds to the fascination or interest of something; a genre of fiction that involves the solution of a crime or a puzzle
36. a te_____ue in martial arts *n.* a particular way or art of doing something that needs skill
37. my_____y novel *n.* something difficult to understand or explain; a secret or enigmatic quality that adds to the fascination or interest of something; a genre of fiction that involves the solution of a crime or a puzzle

ANSWERS: 29. atmospheric, 30. slide, 31. structure, 32. examine, 33. atmospheric, 34. repulsion, 35. mystery, 36. technique, 37. mystery

38. g__e absently out a window *v.* to stare at something or someone for an extended time, usually out of surprise or adoration, or because you are thinking about something else
39. a ne____ve number *adj.* having the quality of something bad or harmful; expressing refusal
40. sn_____ke pattern *n.* a small, thin, delicate piece of snow; a person, especially a young person, who is perceived as overly sensitive, easily offended, or with an inflated sense of entitlement
41. de__e into documents *v.* to dig or excavate deeply; to investigate or research intensively; to rummage or explore in a thorough or careful manner
42. co____nt interaction *adj.* pertaining to or characterized by the sharing of electron pairs between atoms in a molecule, resulting in the formation of a covalent bond
43. ou____d cheerfulness *adj.* relating to the external appearance or surface of something; visible
44. 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
45. a br___h pipe *n.* a division of a tree or woody shrub that grows out from the trunk or a main stem; a division of some larger or more complex organization
46. uncomfortable hu____ty *n.* the amount of water vapor in the air, typically as a percentage of the maximum that the air could hold at that temperature

ANSWERS: 38. gaze, 39. negative, 40. snowflake, 41. delve, 42. covalent, 43. outward, 44. degree, 45. branch, 46. humidity

47. fr____r bag *n.* a device that keeps food, beverages, or other perishable items at low temperatures to maintain their freshness or preserve them for later use
48. permanently ne____l country *adj.* not helping or assisting either side in a conflict, argument, etc.
49. so__d employment measures *adj.* hard or firm; characterized by good substantial quality
50. small mo____les *n.* a group of two or more atoms held together by attractive forces known as chemical bonds
51. an ele____al storm *adj.* relating to electricity
52. dif____ate between fact and fiction *v.* to recognize or establish as being distinct; to distinguish between things that are compared; to calculate a derivative
53. wi____y scenery *adj.* relating to or characteristic of winter, including snow, ice, cold temperatures, and short days; bleak or cold in appearance, feeling, or behavior
54. r_b shoulders *v.* to move one's hand or an object over the surface of something with pressure
55. degree in ele____al engineering *adj.* relating to electricity
56. an id____al equation *adj.* being the exact same one
57. bilateral sy____ry *n.* balance or proportion in design or structure, with elements arranged evenly on either side of an axis
58. flow of el____ons *n.* a tiny particle with the negative electrical charge

ANSWERS: 47. freezer, 48. neutral, 49. solid, 50. molecule, 51. electrical, 52. differentiate, 53. wintry, 54. rub, 55. electrical, 56. identical, 57. symmetry, 58. electron

59. global b__d market *n.* a close emotional connection between two or more people; a certificate of debt that a government or corporation issues to raise money
60. oxygen a__m *n.* the smallest unit of ordinary matter that forms a chemical element, composed of a nucleus and one or more electrons bound to the nucleus
61. art cr___c *n.* someone who expresses opinions about the quality of books, music, etc.
62. hy_____en gas *n.* the chemical element that is the lightest gas is colorless, odorless, tasteless, and combines with oxygen to form water
63. ex_____e the data studiously *v.* to study or consider a person or object attentively and thoroughly to learn something about them
64. wi___y weather *adj.* relating to or characteristic of winter, including snow, ice, cold temperatures, and short days; bleak or cold in appearance, feeling, or behavior
65. g__e steadily at his face *v.* to stare at something or someone for an extended time, usually out of surprise or adoration, or because you are thinking about something else
66. fr_____on force *n.* the force that opposes motion between two objects in contact, especially by producing heat and wear, and is proportional to the normal force between the objects

ANSWERS: 59. bond, 60. atom, 61. critic, 62. hydrogen, 63. examine, 64. wintry, 65. gaze, 66. friction

67. de____p a strategy *v.* to grow or expand; to improve or refine through a process of progress and refinement, often to achieve greater sophistication or complexity; to elaborate or add detail to something that is in the process of being created
68. 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
69. 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
70. mo_____le behavior *n.* a group of two or more atoms held together by attractive forces known as chemical bonds
71. delicate sn_____ke *n.* a small, thin, delicate piece of snow; a person, especially a young person, who is perceived as overly sensitive, easily offended, or with an inflated sense of entitlement
72. so__d ally *adj.* hard or firm; characterized by good substantial quality
73. axial sy_____ry *n.* balance or proportion in design or structure, with elements arranged evenly on either side of an axis
74. pr___n decay *n.* a very small particle with a positive charge equal to the negative charge of an electron that forms part of the nucleus of all atoms

ANSWERS: 67. develop, 68. degree, 69. structure, 70. molecule, 71. snowflake, 72. solid, 73. symmetry, 74. proton

75. sl__e a card across the table *v.* to move or cause to move smoothly along a surface without interruption
76. nuclear ph____s *n.* the science of matter and energy and their interactions
77. fr____l pattern *n.* a complex geometric pattern or shape that repeats itself on smaller and smaller scales, often occurring in nature or mathematical equations
78. ex____d a lineup *v.* to increase or to make something greater in size, number, or importance
79. severe cr____c *n.* someone who expresses opinions about the quality of books, music, etc.
80. pair of id____al twins *adj.* being the exact same one
81. he____n pattern *n.* a six-sided polygon with six angles and six sides of equal length
82. an ou____d journey *adj.* relating to the external appearance or surface of something; visible
83. say def____ly *adv.* without any question and beyond doubt; clearly
84. a mollusk sh__l *n.* hard outer covering or case of eggs, nuts, some seeds, and some animals
85. increase sl____ly *adv.* in a small degree or extent; a little
86. re__l bandits *v.* to force an attack or attacker to withdraw or retreat
87. def____ly become a problem *adv.* without any question and beyond doubt; clearly
88. sense of re____on *n.* a feeling of intense disgust or dislike; a physical force that resists the approach or contact of two objects

ANSWERS: 75. slide, 76. physics, 77. fractal, 78. expand, 79. critic, 80. identical, 81. hexagon, 82. outward, 83. definitely, 84. shell, 85. slightly, 86. repel, 87. definitely, 88. repulsion

89. colorless li___d *n.* a substance, such as water or oil that flows freely and is neither a solid nor a gas
90. he_____n head bolt *n.* a six-sided polygon with six angles and six sides of equal length
91. st_____ht for two months *adj.* extending or moving in one direction without bending or curving; having no deviations
92. r_b a glass window *v.* to move one's hand or an object over the surface of something with pressure
93. the atmospheric tem_____re *n.* the degree of hotness or coldness of a thing or place
94. the ul_____te goal in life *adj.* furthest or highest in degree or order
95. hazardous li___d *n.* a substance, such as water or oil that flows freely and is neither a solid nor a gas
96. re___n a lawyer *v.* to keep or continue to possess or maintain something
97. water va__r in the atmosphere *n.* a mass of tiny liquid drops in the air
98. heavy hy_____en *n.* the chemical element that is the lightest gas is colorless, odorless, tasteless, and combines with oxygen to form water
99. have a ne_____ve effect *adj.* having the quality of something bad or harmful; expressing refusal
100. co_____nt compound *adj.* pertaining to or characterized by the sharing of electron pairs between atoms in a molecule, resulting in the formation of a covalent bond

ANSWERS: 89. liquid, 90. hexagon, 91. straight, 92. rub, 93. temperature, 94. ultimate, 95. liquid, 96. retain, 97. vapor, 98. hydrogen, 99. negative, 100. covalent

101. sym_____al triangle *adj.* having similarity in size, shape, and relative position of corresponding parts
102. beam of el_____ons *n.* a tiny particle with the negative electrical charge
103. a st_____ht line *adj.* extending or moving in one direction without bending or curving; having no deviations
104. the te_____ue applied to construction *n.* a particular way or art of doing something that needs skill
105. at_____t customers *v.* to draw or entice someone or something towards them through the qualities they have, especially positive ones
106. a right-hand gl___e *n.* a piece of clothing worn on the hand and wrist for protection against cold, dirt, etc., with separate parts for each finger
107. fire st___k *v.* to put something, usually a sharp object, into something; to restrict yourself to doing or using one certain thing and not change; (noun) a thin piece of wood or other material
108. lack of ox_____n *n.* the chemical element with the symbol O that is present in air and water and is necessary for people, animals, and plants to live
109. laws of ph_____s *n.* the science of matter and energy and their interactions
110. an egg sh___l *n.* hard outer covering or case of eggs, nuts, some seeds, and some animals

ANSWERS: 101. symmetrical, 102. electron, 103. straight, 104. technique, 105. attract, 106. glove, 107. stick, 108. oxygen, 109. physics, 110. shell

ANSWERS:

Session 3: Fill in the Blanks

1. This figure is _____ about the x-axis.
adj. having similarity in size, shape, and relative position of corresponding parts
2. The youngster was _____ at by the beast.
v. to stare at something or someone for an extended time, usually out of surprise or adoration, or because you are thinking about something else
3. The _____ appearance of the building was impressive, but the inside was in dire need of repairs.
adj. relating to the external appearance or surface of something; visible
4. The sea surface temperature and _____ circulation are inextricably linked.
adj. about or located in the earth's atmosphere
5. The outermost electron _____ determines the chemical properties of an atom.
n. hard outer covering or case of eggs, nuts, some seeds, and some animals
6. Initially, we must _____ all project-related expenses.
v. to study or consider a person or object attentively and thoroughly to learn something about them
7. She was wearing a black _____.
n. a piece of clothing worn on the hand and wrist for protection against cold, dirt, etc., with separate parts for each finger
8. A legislative speaker should always be _____.
adj. not helping or assisting either side in a conflict, argument, etc.

ANSWERS: 1. symmetrical, 2. gazed, 3. outward, 4. atmospheric, 5. shell, 6. examine, 7. glove, 8. neutral

9. Researchers must _____ into the intricacies of the human brain to understand mental illness.
- v.* to dig or excavate deeply; to investigate or research intensively; to rummage or explore in a thorough or careful manner
10. I cut the cheese into small _____ for the salad.
- 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
11. The movie has received almost universally _____ criticism.
- adj.* having the quality of something bad or harmful; expressing refusal
12. There are several _____ limestone peaks throughout the mountains.
- adj.* having a rough and sharply uneven surface or outline
13. We must _____ a new system to streamline our workflow and increase efficiency.
- v.* to grow or expand; to improve or refine through a process of progress and refinement, often to achieve greater sophistication or complexity; to elaborate or add detail to something that is in the process of being created
14. The _____ in the tropical forest was so high that it was hard to breathe.
- n.* the amount of water vapor in the air, typically as a percentage of the maximum that the air could hold at that temperature
15. He studied the _____ of radiation.
- n.* the science of matter and energy and their interactions
16. The _____ of the tree had fallen and blocked the road.
- n.* a division of a tree or woody shrub that grows out from the trunk or a main stem; a division of some larger or more complex organization

ANSWERS: 9. delve, 10. cubes, 11. negative, 12. jagged, 13. develop, 14. humidity, 15. physics, 16. branch

17. This material can _____ moisture swiftly.

v. to force an attack or attacker to withdraw or retreat

18. The children built a _____ snowman in the backyard.

adj. relating to or characteristic of winter, including snow, ice, cold temperatures, and short days; bleak or cold in appearance, feeling, or behavior

19. The solar wind is composed almost entirely of electrons and _____.

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

20. Clouds form when water _____ rises to the upper atmosphere.

n. a mass of tiny liquid drops in the air

21. The _____ surrounding the disappearance of the traveler has yet to be solved by authorities.

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

22. She _____ the sore spot on her leg to ease the pain.

v. to move one's hand or an object over the surface of something with pressure

23. Management must take _____ responsibility for the accident.

adj. furthest or highest in degree or order

24. In chemistry, _____ bonding involves the sharing of electrons between atoms.

adj. pertaining to or characterized by the sharing of electron pairs between atoms in a molecule, resulting in the formation of a covalent bond

ANSWERS: 17. repel, 18. wintry, 19. protons, 20. vapor, 21. mystery, 22. rubbed, 23. ultimate, 24. covalent

25. The government is eager to _____ international investment.
- v.* to draw or entice someone or something towards them through the qualities they have, especially positive ones
26. The Christmas tree was beautifully decorated with delicate _____ ornaments.
- n.* a small, thin, delicate piece of snow; a person, especially a young person, who is perceived as overly sensitive, easily offended, or with an inflated sense of entitlement
27. If necessary, you can _____ the front seats forward.
- v.* to move or cause to move smoothly along a surface without interruption
28. The coastline of Norway is one of the most famous examples of _____ geometry in nature.
- n.* a complex geometric pattern or shape that repeats itself on smaller and smaller scales, often occurring in nature or mathematical equations
29. The honeycomb structure of a beehive is made up of _____.
- n.* a six-sided polygon with six angles and six sides of equal length
30. The sponge takes up the _____ well.
- n.* a substance, such as water or oil that flows freely and is neither a solid nor a gas
31. The _____ and the oxygen react and then form water.
- n.* the chemical element that is the lightest gas is colorless, odorless, tasteless, and combines with oxygen to form water
32. The passenger grabbed for the _____ mask.
- n.* the chemical element with the symbol O that is present in air and water and is necessary for people, animals, and plants to live

ANSWERS: 25. attract, 26. snowflake, 27. slide, 28. fractal, 29. hexagons, 30. liquid, 31. hydrogen, 32. oxygen

33. Jockey's superior _____ brought him victory.
n. a particular way or art of doing something that needs skill
34. The outermost _____ shell determines the chemical properties of an atom.
n. a tiny particle with the negative electrical charge
35. I put the ice cream in the _____ to keep it from melting.
n. a device that keeps food, beverages, or other perishable items at low temperatures to maintain their freshness or preserve them for later use
36. The shape of the DNA _____ is a double helix.
n. a group of two or more atoms held together by attractive forces known as chemical bonds
37. The paper is _____ worth reading thoroughly.
adv. without any question and beyond doubt; clearly
38. The outermost electron shell of an _____ determines its chemical characteristics.
n. the smallest unit of ordinary matter that forms a chemical element, composed of a nucleus and one or more electrons bound to the nucleus
39. Infant formulas are nutritionally almost _____ to a mother's breast milk.
adj. being the exact same one
40. 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
41. The _____ of water is called ice.
adj. hard or firm; characterized by good substantial quality

ANSWERS: 33. technique, 34. electron, 35. freezer, 36. molecule, 37. definitely, 38. atom, 39. identical, 40. degree, 41. solid-state

42. The building had a _____ pattern that was pleasing to the eye.
n. balance or proportion in design or structure, with elements arranged evenly on either side of an axis
43. The _____ between the two countries was causing tension.
n. the force that opposes motion between two objects in contact, especially by producing heat and wear, and is proportional to the normal force between the objects
44. Cities around the world set records for highest _____ this summer.
n. the degree of hotness or coldness of a thing or place
45. Computers help people _____ specific memories.
v. to keep or continue to possess or maintain something
46. Actuators convert _____ pulses into motion.
adj. relating to electricity
47. Advocates for legal reform hear less harsh words from their _____.
n. someone who expresses opinions about the quality of books, music, etc.
48. The sight of spiders fills me with _____.
n. a feeling of intense disgust or dislike; a physical force that resists the approach or contact of two objects
49. He was sick for five _____ days.
adj. extending or moving in one direction without bending or curving; having no deviations

ANSWERS: 42. symmetry, 43. friction, 44. temperatures, 45. retain, 46. electrical, 47. critics, 48. repulsion, 49. straight

50. You _____ a bill in the change machine, and the coins pop out.

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

51. The teacher asked the students to _____ between the two similar species of birds.

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

52. He moved his body _____ to the left.

- adv. in a small degree or extent; a little

53. 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

54. They had formed a friendship _____.

- n. a close emotional connection between two or more people; a certificate of debt that a government or corporation issues to raise money

55. They hope to _____ their business worldwide.

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

ANSWERS: 50. stick, 51. differentiate, 52. slightly, 53. structure, 54. bond, 55. expand