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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

Advanced Words Only

IMPORTANT

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Session 1: Word List

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.

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.

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.

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**.

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.

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**.

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**.

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.

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.

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. sym_____al triangle *adj.* having similarity in size, shape, and relative position of corresponding parts
2. 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
3. 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
4. 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
5. the ja____d outline of the crags *adj.* having a rough and sharply uneven surface or outline
6. re_____on force *n.* a feeling of intense disgust or dislike; a physical force that resists the approach or contact of two objects
7. he_____n head bolt *n.* a six-sided polygon with six angles and six sides of equal length
8. de__e deeper *v.* to dig or excavate deeply; to investigate or research intensively; to rummage or explore in a thorough or careful manner
9. 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

ANSWERS: 1. symmetrical, 2. fractal, 3. fractal, 4. snowflake, 5. jagged, 6. repulsion, 7. hexagon, 8. delve, 9. snowflake

10. 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
11. re__l bad luck *v.* to force an attack or attacker to withdraw or retreat
12. 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
13. 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
14. he_____n pattern *n.* a six-sided polygon with six angles and six sides of equal length
15. 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
16. 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
17. re__l bandits *v.* to force an attack or attacker to withdraw or retreat
18. sense of re_____on *n.* a feeling of intense disgust or dislike; a physical force that resists the approach or contact of two objects
19. sym_____al pattern *adj.* having similarity in size, shape, and relative position of corresponding parts

ANSWERS: 10. proton, 11. repel, 12. proton, 13. wintry, 14. hexagon, 15. delve, 16. wintry, 17. repel, 18. repulsion, 19. symmetrical

20. 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

21. ja____d edges

adj. having a rough and sharply uneven surface or outline

22. 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: 20. covalent, 21. jagged, 22. covalent

Session 3: Fill in the Blanks

1. 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

2. There are several _____ limestone peaks throughout the mountains.
adj. having a rough and sharply uneven surface or outline

3. 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

4. This figure is _____ about the x-axis.
adj. having similarity in size, shape, and relative position of corresponding parts

5. 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

6. The honeycomb structure of a beehive is made up of _____.
n. a six-sided polygon with six angles and six sides of equal length

7. 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

ANSWERS: 1. snowflake, 2. jagged, 3. fractal, 4. symmetrical, 5. covalent, 6. hexagons, 7. repulsion

8. This material can _____ moisture swiftly.
- v.* to force an attack or attacker to withdraw or retreat
9. 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
10. 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
11. 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

ANSWERS: 8. repel, 9. protons, 10. wintry, 11. delve