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Vocabulary Builder Reference from...

Erika Hamden: What it takes to launch a telescope |

TED Talk

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

Advanced Words Only

IMPORTANT

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Session 1: Word List

astronomer

n. a physicist who studies astronomy

synonym: stargazer, cosmologist, astrophysicist

(1) amateur **astronomer**, (2) solar **astronomer**

This question has fascinated solar **astronomers** for decades.

intergalactic

adj. existing or occurring between different galaxies (= an independent group of stars)

synonym: extragalactic, cosmic, interstellar

(1) **intergalactic** travel, (2) **intergalactic** matter

The **intergalactic** spaceship traveled to distant planets.

redshift

n. a concept in physics, particularly in the field of cosmology, that describes how light or other electromagnetic radiation from an object increases in wavelength, or shifts to the red end of the spectrum, as it moves away from an observer, which is a key principle behind the Big Bang Theory and the expansion of the universe

synonym: doppler shift

(1) **redshift** effect, (2) Doppler **redshift**

The **redshift** in the galaxy's light suggested it was moving away from us.

explode

v. to burst or break open violently and noisily; to cause something to burst or break open

synonym : detonate, blast, rupture

(1) **explode** in anger, (2) **explode** in popularity

The old building **exploded** in a fiery inferno.

propulsion

n. the act or process of propelling or driving something forward, often using a motor, engine, or other mechanical means

synonym : propelling, driving, actuation

(1) **propulsion** technology, (2) nuclear **propulsion**

The spacecraft's **propulsion** system helped it travel through space.

stratosphere

n. the second layer of the Earth's atmosphere, extending from about 7 to 50 kilometers above the Earth's surface, containing the ozone layer

synonym : upper atmosphere, ozone layer

(1) **stratosphere** layer, (2) **stratosphere** ozone

The ozone layer, which protects us from harmful UV radiation, is in the **stratosphere**.

remake

v. to create a new version of a work of art, such as a film, song, or play, using the same or similar material as the original; to adapt or update something for a new audience or purpose; (noun) a new version or adaptation of a previously existing movie, song, TV show, or other creative work

synonym : revamp, redo, reproduce

(1) video game **remake**, (2) **remake** song

The director plans to **remake** the classic movie with a modern twist.

calibration

n. the process of ensuring that an instrument, machine, or process is accurate and functioning correctly, often involving comparison to a standard or reference

synonym : adjustment, tuning, standardization

(1) **calibration** error, (2) **calibration** settings

The **calibration** of the equipment was vital to ensure accurate measurements.

falcon

n. a bird of prey characterized by its sharp talons and hooked beak; typically having a long tail and wingspan and known for its swift and agile flight

synonym : hawk, eagle, kestrel

(1) **falcon** feathers, (2) peregrine **falcon**

The **falcon's** keen eyesight makes it an excellent hunter.

spectrograph

n. an instrument that separates light into its component wavelengths and records the distribution of intensities as a graph, used for chemical analysis or to determine the properties of stars and galaxies

synonym : spectrometer, spectroscope, instrument

(1) **spectrograph** analysis, (2) acoustic **spectrograph**

The **spectrograph** data showed that the element was composed of multiple spectral lines.

dampen

v. to make something wet or moist; to reduce the intensity or impact of something, such as a feeling, sound, or movement

synonym : drench, moisten, saturate

(1) **dampen** the sound, (2) **dampen** the enthusiasm

The rain helped **dampen** the flames of the campfire.

inflated

adj. swollen or blown up, especially with air or gas; excessively or unreasonably high

synonym : enlarged, swollen, distended

(1) **inflated** prices, (2) an **inflated** balloon

The athlete's ego became **inflated** by their success.

spherical

adj. having the shape of a sphere; round, spherical, or ball-shaped in appearance

synonym : round, orbicular, spherical

(1) **spherical** shape, (2) **spherical** object

The Earth is a nearly **spherical** planet.

teardrop

n. anything shaped like a falling drop as a pendant gem on an earring; a single tear that falls from the eye

synonym: tear

(1) **teardrop** balloon, (2) **teardrop** earring

Teardrop rubies and diamonds were set in white gold.

heartbreak

n. a feeling of great sadness or disappointment

synonym: grief, sorrow, bitterness

(1) ease her **heartbreak**, (2) go through **heartbreak**

They had experienced the **heartbreak** of losing two children due to premature births.

Session 2: Spelling

1. da___n the sound
v. to make something wet or moist; to reduce the intensity or impact of something, such as a feeling, sound, or movement
2. fa___n feathers
n. a bird of prey characterized by its sharp talons and hooked beak; typically having a long tail and wingspan and known for its swift and agile flight
3. re___e song
v. to create a new version of a work of art, such as a film, song, or play, using the same or similar material as the original; to adapt or update something for a new audience or purpose; (noun) a new version or adaptation of a previously existing movie, song, TV show, or other creative work
4. da___n the enthusiasm
v. to make something wet or moist; to reduce the intensity or impact of something, such as a feeling, sound, or movement
5. spe_____aph analysis
n. an instrument that separates light into its component wavelengths and records the distribution of intensities as a graph, used for chemical analysis or to determine the properties of stars and galaxies
6. str_____ere layer
n. the second layer of the Earth's atmosphere, extending from about 7 to 50 kilometers above the Earth's surface, containing the ozone layer

ANSWERS: 1. dampen, 2. falcon, 3. remake, 4. dampen, 5. spectrograph, 6. stratosphere

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|---------------------------|--|
| 7. ex____e in anger | v. to burst or break open violently and noisily; to cause something to burst or break open |
| 8. acoustic spe____aph | n. an instrument that separates light into its component wavelengths and records the distribution of intensities as a graph, used for chemical analysis or to determine the properties of stars and galaxies |
| 9. video game re____e | v. to create a new version of a work of art, such as a film, song, or play, using the same or similar material as the original; to adapt or update something for a new audience or purpose; (noun) a new version or adaptation of a previously existing movie, song, TV show, or other creative work |
| 10. ex____e in popularity | v. to burst or break open violently and noisily; to cause something to burst or break open |
| 11. go through hea____ak | n. a feeling of great sadness or disappointment |
| 12. int____tic matter | <i>adj.</i> existing or occurring between different galaxies (= an independent group of stars) |
| 13. int____tic travel | <i>adj.</i> existing or occurring between different galaxies (= an independent group of stars) |
| 14. te____op earring | n. anything shaped like a falling drop as a pendant gem on an earring; a single tear that falls from the eye |

ANSWERS: 7. explode, 8. spectrograph, 9. remake, 10. explode, 11. heartbreak, 12. intergalactic, 13. intergalactic, 14. teardrop

15. sp_____al shape *adj.* having the shape of a sphere; round, spherical, or ball-shaped in appearance
16. an in_____ed balloon *adj.* swollen or blown up, especially with air or gas; excessively or unreasonably high
17. Doppler re_____ft *n.* a concept in physics, particularly in the field of cosmology, that describes how light or other electromagnetic radiation from an object increases in wavelength, or shifts to the red end of the spectrum, as it moves away from an observer, which is a key principle behind the Big Bang Theory and the expansion of the universe
18. pro_____on technology *n.* the act or process of propelling or driving something forward, often using a motor, engine, or other mechanical means
19. solar ast_____er *n.* a physicist who studies astronomy
20. ease her hea_____ak *n.* a feeling of great sadness or disappointment
21. amateur ast_____er *n.* a physicist who studies astronomy
22. str_____ere ozone *n.* the second layer of the Earth's atmosphere, extending from about 7 to 50 kilometers above the Earth's surface, containing the ozone layer
23. nuclear pro_____on *n.* the act or process of propelling or driving something forward, often using a motor, engine, or other mechanical means

ANSWERS: 15. spherical, 16. inflated, 17. redshift, 18. propulsion, 19. astronomer, 20. heartbreak, 21. astronomer, 22. stratosphere, 23. propulsion

24. sp_____al object *adj.* having the shape of a sphere; round, spherical, or ball-shaped in appearance
25. peregrine fa____n *n.* a bird of prey characterized by its sharp talons and hooked beak; typically having a long tail and wingspan and known for its swift and agile flight
26. cal_____on error *n.* the process of ensuring that an instrument, machine, or process is accurate and functioning correctly, often involving comparison to a standard or reference
27. in_____ed prices *adj.* swollen or blown up, especially with air or gas; excessively or unreasonably high
28. cal_____on settings *n.* the process of ensuring that an instrument, machine, or process is accurate and functioning correctly, often involving comparison to a standard or reference
29. te_____op balloon *n.* anything shaped like a falling drop as a pendant gem on an earring; a single tear that falls from the eye
30. re_____ft effect *n.* a concept in physics, particularly in the field of cosmology, that describes how light or other electromagnetic radiation from an object increases in wavelength, or shifts to the red end of the spectrum, as it moves away from an observer, which is a key principle behind the Big Bang Theory and the expansion of the universe

ANSWERS: 24. spherical, 25. falcon, 26. calibration, 27. inflated, 28. calibration, 29. teardrop, 30. redshift

ANSWERS:

Session 3: Fill in the Blanks

1. This question has fascinated solar _____ for decades.
n. a physicist who studies astronomy

2. The old building _____ in a fiery inferno.
v. to burst or break open violently and noisily; to cause something to burst or break open

3. The director plans to _____ the classic movie with a modern twist.
v. to create a new version of a work of art, such as a film, song, or play, using the same or similar material as the original; to adapt or update something for a new audience or purpose; (noun) a new version or adaptation of a previously existing movie, song, TV show, or other creative work

4. The rain helped _____ the flames of the campfire.
v. to make something wet or moist; to reduce the intensity or impact of something, such as a feeling, sound, or movement

5. The ozone layer, which protects us from harmful UV radiation, is in the _____.
n. the second layer of the Earth's atmosphere, extending from about 7 to 50 kilometers above the Earth's surface, containing the ozone layer

6. The _____ in the galaxy's light suggested it was moving away from us.
n. a concept in physics, particularly in the field of cosmology, that describes how light or other electromagnetic radiation from an object increases in wavelength, or shifts to the red end of the spectrum, as it moves away from an observer, which is a key principle behind the Big Bang Theory and the expansion of the universe

ANSWERS: 1. astronomers, 2. exploded, 3. remake, 4. dampen, 5. stratosphere, 6. redshift

7. The _____ data showed that the element was composed of multiple spectral lines.
- n.* an instrument that separates light into its component wavelengths and records the distribution of intensities as a graph, used for chemical analysis or to determine the properties of stars and galaxies
8. The athlete's ego became _____ by their success.
- adj.* swollen or blown up, especially with air or gas; excessively or unreasonably high
9. The spacecraft's _____ system helped it travel through space.
- n.* the act or process of propelling or driving something forward, often using a motor, engine, or other mechanical means
10. The _____ keen eyesight makes it an excellent hunter.
- n.* a bird of prey characterized by its sharp talons and hooked beak; typically having a long tail and wingspan and known for its swift and agile flight
11. The _____ spaceship traveled to distant planets.
- adj.* existing or occurring between different galaxies (= an independent group of stars)
12. The Earth is a nearly _____ planet.
- adj.* having the shape of a sphere; round, spherical, or ball-shaped in appearance
13. _____ rubies and diamonds were set in white gold.
- n.* anything shaped like a falling drop as a pendant gem on an earring; a single tear that falls from the eye
14. They had experienced the _____ of losing two children due to premature births.
- n.* a feeling of great sadness or disappointment

ANSWERS: 7. spectrograph, 8. inflated, 9. propulsion, 10. falcon's, 11. intergalactic, 12. spherical, 13. Teardrop, 14. heartbreak

15. The _____ of the equipment was vital to ensure accurate measurements.
- n.* the process of ensuring that an instrument, machine, or process is accurate and functioning correctly, often involving comparison to a standard or reference

ANSWERS: 15. calibration