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Vocabulary Builder Reference from...

Fabio Pacucci: Yes, scientists are actually building an elevator to space | TED Talk

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

Advanced Words Only

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Session 1: Word List

catastrophe

n. a sudden event that causes extreme ruin and misfortune
synonym: disaster, calamity, cataclysm

(1) **catastrophe** risk management, (2) avoid climate

catastrophe

The lack of funds has resulted in a **catastrophe** for our university system.

astronaut

n. a person trained by a space agency to travel outside the Earth's atmosphere

synonym: spaceman, cosmonaut

(1) **astronaut** mission, (2) **astronaut** in training

The shuttle **astronaut** trained for months before embarking on the space mission.

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.

carousel

n. a rotating platform, often used for amusement or entertainment, adorned with horses or other animals or

vehicles for people to ride; a slideshow or display of images or information that cycles or repeats

synonym: merry-go-round, roundabout, whirligig

(1) baggage claim **carousel**, (2) children's **carousel**

The **carousel** operator made sure each child was safely seated before starting the ride

aloft

adv. in the air; at a high place

synonym: elevated, high, soaring

(1) go **aloft**, (2) carried **aloft** by police

The hot air balloon rose **aloft** into the sky, giving the passengers a breathtaking countryside view.

centrifugal

adj. tending or acting to move away from a center; relating to or operating by means of this force; deviating or diverging from a common point or central idea

synonym: outward, diverging, radiating

(1) **centrifugal** acceleration, (2) **centrifugal** casting

The **centrifugal** force of the spinning ride caused my hair to fly in all directions.

inert

adj. lacking the ability to move or act, often used to describe an object or substance that is inactive or non-reactive

synonym: motionless, inactive, dormant

(1) **inert** gases, (2) **inert** ingredients

The rock was completely **inert** and didn't react when we tried to break it open.

rot

v. to decay, or cause something to decay, naturally and gradually

synonym: perish, decay, corrode

(1) begin to **rot**, (2) **rot** with age

Please refrigerate the meat, or it will **rot**.

tether

v. to tie or secure an animal, person, or object with a rope, chain, or other similar devices to prevent it from moving

too far away; (noun) a rope or chain used to tie up or restrain an animal, such as a horse or dog

synonym : tie, fasten, secure

(1) **tether** a horse, (2) **tether** strap

The hiker **tethered** their dog to a tree while they camped for the night.

counterweight

n. a weight that balances or opposes another weight to achieve stability or equilibrium; a weight that is used to offset the weight of another object or to provide mechanical advantage

synonym : balance, counterbalance, counterpoise

(1) **counterweight** system, (2) **counterweight** balance

The **counterweight** on the suspension bridge helped keep it stable during windy conditions.

envision

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

synonym : anticipate, foresee, picture

(1) **envision** the future, (2) **envision** the project's success

We cannot **envision** her as President.

gravitational

adj. relating to or caused by gravity (= the force that attracts objects towards one another)

synonym : weighty, heavy, earthbound

(1) **gravitational** energy, (2) **gravitational** waves

The **gravitational** force of the black hole was so strong that nothing, not even light, could escape.

geostationary

n. describes a satellite that revolves around the Earth in a fixed position about the planet's rotation; remaining above the same point on the equator

synonym : fixed, stationary, orbiting

(1) **geostationary** orbit, (2) **geostationary** position

The **geostationary** satellite remained in a fixed position in the sky.

revolve

v. to rotate around a central point

synonym: rotate, spin, orbit

(1) **revolve** at high speed, (2) **revolve** around a central axis
The Earth **revolves** around the Sun in an elliptical orbit.

motionless

adj. without movement or motion; completely still

synonym: still, immobile, static

(1) **motionless** figure, (2) **motionless** body

The wounded soldier lay **motionless** on the battlefield waiting for medical attention.

asteroid

n. a small rocky body orbiting the sun, typically in the region between Mars and Jupiter

synonym: minor planet, planetoid, rocky planetesimal

(1) **asteroid** mining, (2) **asteroid** explorer

Scientists are studying the composition and origins of the **asteroid** belt to understand the early solar system better.

equator

n. an line of latitude that separates Earth's northern and southern hemispheres and has a radius of around 40,075 kilometers (24,901 miles)

(1) south of the **equator**, (2) above the **equator**

Ecuador is on the **equator**.

maneuver

n. a motion or combination of moves that requires skill and care; a clever strategy, activity, or movement intended to give someone an advantage

synonym: gimmick, trick, action

(1) political **maneuvers**, (2) made a great **maneuver**

In this class, we learn the basic **maneuver** of the plane.

electrify

v. to make a machine or system work by using electricity; to make someone extremely enthusiastic about or interested in something

synonym: wire, amaze, astonish

(1) **electrify** the audience, (2) **electrify** a manufacturing process

The product developed through years of research continues to **electrify** the market.

elevate

v. to raise something from a lower to a higher position; to give a promotion to or assign to a higher position

synonym: lift, heighten, promote

(1) **elevate** educational standards, (2) **elevate** a close relationship

Eating food in a hurry **elevates** blood glucose levels.

catastrophic

adj. extremely harmful; causing physical or financial destruction

synonym: fatal, disastrous, destructive

(1) victim of **catastrophic** injuries, (2) **catastrophic** climate change

The extinction rate of aquatic animals was **catastrophic**.

nanotube

n. a tube-shaped structure that is composed of very small particles, typically with a diameter of a few nanometers; nanotubes are used in a variety of applications, including electronics and materials science

(1) **nanotube** technology, (2) metallic **nanotube**

Carbon **nanotubes** are used in various fields of science and technology due to their unique properties.

conundrum

n. a confusing and difficult problem or question

synonym: puzzle, riddle, enigma

(1) **conundrum** of choice, (2) pose a **conundrum**

The group faced a **conundrum** when they couldn't decide whether to go hiking or to the beach.

Session 2: Spelling

1. gra_____nal waves
adj. relating to or caused by gravity (= the force that attracts objects towards one another)
2. in__t ingredients
adj. lacking the ability to move or act, often used to describe an object or substance that is inactive or non-reactive
3. te___r strap
v. to tie or secure an animal, person, or object with a rope, chain, or other similar devices to prevent it from moving too far away; (noun) a rope or chain used to tie up or restrain an animal, such as a horse or dog
4. cou_____ght system
n. a weight that balances or opposes another weight to achieve stability or equilibrium; a weight that is used to offset the weight of another object or to provide mechanical advantage
5. re_____e around a central axis
v. to rotate around a central point
6. el_____fy the audience
v. to make a machine or system work by using electricity; to make someone extremely enthusiastic about or interested in something
7. cen_____al acceleration
adj. tending or acting to move away from a center; relating to or operating by means of this force; deviating or diverging from a common point or central idea

ANSWERS: 1. gravitational, 2. inert, 3. tether, 4. counterweight, 5. revolve, 6. electrify, 7. centrifugal

8. carried al__t by police *adv.* in the air; at a high place
9. above the eq____r *n.* an line of latitude that separates Earth's northern and southern hemispheres and has a radius of around 40,075 kilometers (24,901 miles)
10. r_t with age *v.* to decay, or cause something to decay, naturally and gradually
11. te___r a horse *v.* to tie or secure an animal, person, or object with a rope, chain, or other similar devices to prevent it from moving too far away; (noun) a rope or chain used to tie up or restrain an animal, such as a horse or dog
12. el_____fy a manufacturing process *v.* to make a machine or system work by using electricity; to make someone extremely enthusiastic about or interested in something
13. mot_____ss body *adj.* without movement or motion; completely still
14. en_____on the project's success *v.* to imagine or expect what a situation will be like in the future
15. re_____e at high speed *v.* to rotate around a central point
16. in__t gases *adj.* lacking the ability to move or act, often used to describe an object or substance that is inactive or non-reactive
17. cou_____ght balance *n.* a weight that balances or opposes another weight to achieve stability or equilibrium; a weight that is used to offset the weight of another object or to provide mechanical advantage

ANSWERS: 8. aloft, 9. equator, 10. rot, 11. tether, 12. electrify, 13. motionless, 14. envision, 15. revolve, 16. inert, 17. counterweight

18. south of the eq____r *n.* an line of latitude that separates Earth's northern and southern hemispheres and has a radius of around 40,075 kilometers (24,901 miles)
19. as____id explorer *n.* a small rocky body orbiting the sun, typically in the region between Mars and Jupiter
20. na____be technology *n.* a tube-shaped structure that is composed of very small particles, typically with a diameter of a few nanometers; nanotubes are used in a variety of applications, including electronics and materials science
21. 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
22. gra____nal energy *adj.* relating to or caused by gravity (= the force that attracts objects towards one another)
23. children's ca____el *n.* a rotating platform, often used for amusement or entertainment, adorned with horses or other animals or vehicles for people to ride; a slideshow or display of images or information that cycles or repeats
24. cat____he risk management *n.* a sudden event that causes extreme ruin and misfortune
25. as____ut in training *n.* a person trained by a space agency to travel outside the Earth's atmosphere

ANSWERS: 18. equator, 19. asteroid, 20. nanotube, 21. falcon, 22. gravitational, 23. carousel, 24. catastrophe, 25. astronaut

26. metallic na_____be *n.* a tube-shaped structure that is composed of very small particles, typically with a diameter of a few nanometers; nanotubes are used in a variety of applications, including electronics and materials science
27. made a great ma_____er *n.* a motion or combination of moves that requires skill and care; a clever strategy, activity, or movement intended to give someone an advantage
28. el_____e a close relationship *v.* to raise something from a lower to a higher position; to give a promotion to or assign to a higher position
29. el_____e educational standards *v.* to raise something from a lower to a higher position; to give a promotion to or assign to a higher position
30. geo_____ary orbit *n.* describes a satellite that revolves around the Earth in a fixed position about the planet's rotation; remaining above the same point on the equator
31. mot_____ss figure *adj.* without movement or motion; completely still
32. avoid climate cat_____he *n.* a sudden event that causes extreme ruin and misfortune
33. cen_____al casting *adj.* tending or acting to move away from a center; relating to or operating by means of this force; deviating or diverging from a common point or central idea
34. victim of cat_____hic injuries *adj.* extremely harmful; causing physical or financial destruction

ANSWERS: 26. nanotube, 27. maneuver, 28. elevate, 29. elevate, 30. geostationary, 31. motionless, 32. catastrophe, 33. centrifugal, 34. catastrophic

35. 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
36. as_____ut mission *n.* a person trained by a space agency to travel outside the Earth's atmosphere
37. political ma_____ers *n.* a motion or combination of moves that requires skill and care; a clever strategy, activity, or movement intended to give someone an advantage
38. as_____id mining *n.* a small rocky body orbiting the sun, typically in the region between Mars and Jupiter
39. en_____on the future *v.* to imagine or expect what a situation will be like in the future
40. pose a co_____um *n.* a confusing and difficult problem or question
41. co_____um of choice *n.* a confusing and difficult problem or question
42. begin to r_t *v.* to decay, or cause something to decay, naturally and gradually
43. go al__t *adv.* in the air; at a high place
44. baggage claim ca_____el *n.* a rotating platform, often used for amusement or entertainment, adorned with horses or other animals or vehicles for people to ride; a slideshow or display of images or information that cycles or repeats
45. geo_____ary position *n.* describes a satellite that revolves around the Earth in a fixed position about the planet's rotation; remaining above the same point on the equator

ANSWERS: 35. falcon, 36. astronaut, 37. maneuver, 38. asteroid, 39. envision, 40. conundrum, 41. conundrum, 42. rot, 43. aloft, 44. carousel, 45. geostationary

46. cat_____hic climate change

adj. extremely harmful; causing physical or financial destruction

ANSWERS: 46. catastrophic

Session 3: Fill in the Blanks

1. The rock was completely _____ and didn't react when we tried to break it open.
adj. lacking the ability to move or act, often used to describe an object or substance that is inactive or non-reactive

2. We cannot _____ her as President.
v. to imagine or expect what a situation will be like in the future

3. The group faced a _____ when they couldn't decide whether to go hiking or to the beach.
n. a confusing and difficult problem or question

4. The product developed through years of research continues to _____ the market.
v. to make a machine or system work by using electricity; to make someone extremely enthusiastic about or interested in something

5. The hiker _____ their dog to a tree while they camped for the night.
v. to tie or secure an animal, person, or object with a rope, chain, or other similar devices to prevent it from moving too far away; (noun) a rope or chain used to tie up or restrain an animal, such as a horse or dog

6. The _____ operator made sure each child was safely seated before starting the ride
n. a rotating platform, often used for amusement or entertainment, adorned with horses or other animals or vehicles for people to ride; a slideshow or display of images or information that cycles or repeats

7. The shuttle _____ trained for months before embarking on the space mission.
n. a person trained by a space agency to travel outside the Earth's atmosphere

ANSWERS: 1. inert, 2. envision, 3. conundrum, 4. electrify, 5. tethered, 6. carousel, 7. astronaut

8. The Earth _____ around the Sun in an elliptical orbit.
v. to rotate around a central point
9. Scientists are studying the composition and origins of the _____ belt to understand the early solar system better.
n. a small rocky body orbiting the sun, typically in the region between Mars and Jupiter
10. The _____ on the suspension bridge helped keep it stable during windy conditions.
n. a weight that balances or opposes another weight to achieve stability or equilibrium; a weight that is used to offset the weight of another object or to provide mechanical advantage
11. In this class, we learn the basic _____ of the plane.
n. a motion or combination of moves that requires skill and care; a clever strategy, activity, or movement intended to give someone an advantage
12. The extinction rate of aquatic animals was _____.
adj. extremely harmful; causing physical or financial destruction
13. The lack of funds has resulted in a _____ for our university system.
n. a sudden event that causes extreme ruin and misfortune
14. The hot air balloon rose _____ into the sky, giving the passengers a breathtaking countryside view.
adv. in the air; at a high place
15. The wounded soldier lay _____ on the battlefield waiting for medical attention.
adj. without movement or motion; completely still

ANSWERS: 8. revolves, 9. asteroid, 10. counterweight, 11. maneuver, 12. catastrophic, 13. catastrophe, 14. aloft, 15. motionless

16. 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
17. The _____ force of the spinning ride caused my hair to fly in all directions.
- adj.* tending or acting to move away from a center; relating to or operating by means of this force; deviating or diverging from a common point or central idea
18. The _____ satellite remained in a fixed position in the sky.
- n.* describes a satellite that revolves around the Earth in a fixed position about the planet's rotation; remaining above the same point on the equator
19. Carbon _____ are used in various fields of science and technology due to their unique properties.
- n.* a tube-shaped structure that is composed of very small particles, typically with a diameter of a few nanometers; nanotubes are used in a variety of applications, including electronics and materials science
20. Please refrigerate the meat, or it will ____.
- v.* to decay, or cause something to decay, naturally and gradually
21. Ecuador is on the _____.
- n.* an line of latitude that separates Earth's northern and southern hemispheres and has a radius of around 40,075 kilometers (24,901 miles)
22. The _____ force of the black hole was so strong that nothing, not even light, could escape.
- adj.* relating to or caused by gravity (= the force that attracts objects towards one another)

ANSWERS: 16. falcon's, 17. centrifugal, 18. geostationary, 19. nanotubes, 20. rot, 21. equator, 22. gravitational

23. Eating food in a hurry _____ blood glucose levels.

- v. to raise something from a lower to a higher position; to give a promotion to or assign to a higher position

ANSWERS: 23. elevates