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Vocabulary Builder Reference from...

Janet Iwasa: The wonders of the molecular world, animated | TED Talk

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

Advanced Words Only

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Session 1: Word List

awe-inspiring

adj. making you feel great respect or admiration through being impressive or formidable

synonym: magnificent, amazing, astonishing

(1) **awe-inspiring** painting, (2) **awe-inspiring** power

The moment the glacier collapses is an **awe-inspiring** sight.

overwhelm

v. to defeat someone or something by using a great deal of force; to have a strong emotional effect on somebody

synonym: conquer, crush, dominate

(1) he was **overwhelmed** with gratitude, (2) **overwhelm** opponents by numbers

Too much variety may **overwhelm** and confuse viewers.

fascinate

v. to attract and hold the attention of someone deeply and irresistibly

synonym: captivate, intrigue, mesmerize

(1) **fascinate** the public, (2) **fascinate** the young

The magic tricks **fascinated** the children.

animate

v. to make something full of interest and energy

synonym: invigorate, energize, enliven

(1) **animate** the body, (2) **animate** his soul

The positive attitude of the supervisor **animated** the

discussion.

visualize

v. to form a mental image or concept of something; to make something visible

synonym: imagine, picture, envision

(1) **visualize** data, (2) **visualize** flying through space

She tried to **visualize** the layout of the new house in her mind.

invade

v. to enter aggressively into another's territory by military force for conquest and occupation

synonym: intrude, raid, overrun

(1) **invade** other tissues, (2) **invade** his privacy

I have no intention to **invade** your privacy.

pathogen

n. a bacterium, virus, or other microorganism that causes disease

synonym: germ, microbe, bacterium

(1) plant **pathogen**, (2) the **pathogen** in the air

mRNA vaccines are approved faster because they do not contain inactivated **pathogens**.

actin

n. a protein found in muscle tissue that is involved in muscle contraction and movement

synonym: protein, molecule, filament

(1) **actin** protein, (2) **actin** polymerization

The **actin** filaments are responsible for maintaining cell shape and movement.

cytoskeleton

n. a network of protein fibers and filaments that give shape and structural support to cells, as well as play a role in cell division, movement, and communication

synonym: cell framework, microfilament, microtubule

(1) **cytoskeleton** assembly, (2) microtubule **cytoskeleton**

The **cytoskeleton-provided** structure within a cell is critical for maintaining cellular integrity and shape.

filament

n. a thin wire or thread, especially one used to produce light in an electric bulb

synonym: fiber, thread, filament

(1) **filament** lamp, (2) carbon **filament**

The **filament** in the light bulb burned out, and now it's not working.

gobble

v. to eat or swallow something hurriedly, noisily, and greedily; to make the sound of a male turkey

synonym: devour, gulp, swallow

(1) **gobble** down food, (2) **gobble** up the competition

I always **gobble** my breakfast quickly because I'm usually in a rush.

tubule

n. a small, tube-like structure; a minute duct or canal in a plant or animal body

synonym: tube, canal, duct

(1) **tubule** structure, (2) renal **tubule**

The kidney comprises tiny **tubules** that filter waste from the bloodstream.

long-range

adj. relating to or extending over a long distance, period of time, or range of possibilities

synonym: far-reaching, extended, distant

(1) **long-range** radar, (2) **long-range** weather forecast

The military uses **long-range** missiles to hit targets from far away.

aptly

adv. in a way that is appropriate or fitting; in a way that demonstrates understanding or intelligence

synonym: appropriately, fittingly, properly

(1) **aptly** named, (2) **aptly** timed

She **aptly** described the complex scientific concept in simple terms everyone could understand.

organelle

n. a specialized subunit, usually within a cell, that has a specific function

(1) cellular **organelles**, (2) **organelle** protein
Membranes bind these **organelles** together.

dynein

n. a type of motor protein that moves along microtubules in cells, playing a key role in various cellular processes such as intracellular transport, mitosis, and ciliary and flagellar movement

synonym : motor protein, microtubule

(1) **dynein** motor, (2) cytoplasmic **dynein**

Inhibition of **dynein** activity has been proposed as a potential therapeutic target for cancer treatment.

chariot

n. a two-wheeled horse-drawn battle vehicle used in ancient Egypt, Greece, and Rome for warfare and racing

(1) **chariot** builder, (2) **chariot** race

The ancient Romans enjoyed spectating **chariot** races.

Alzheimer

n. a neurodegenerative disease that causes memory loss, cognitive decline, and behavioral issues; is the most common cause of dementia in older adults

synonym : dementia, memory loss, cognitive decline

(1) **Alzheimer's** brain, (2) **Alzheimer's** risk factors

My grandmother has **Alzheimer's** disease requires special care and attention from her caregivers.

histone

n. a type of protein molecule that is responsible for packing and organizing DNA into a compact structure called chromatin within the nucleus of cells

synonym : DNA packaging protein, nucleoprotein

(1) **histone** modification, (2) **histone** deacetylase

The DNA molecule wraps around the **histone** proteins to form a nucleosome.

chromatin

n. a complex of DNA and protein found in eukaryotic cells, which primary function is to compact the DNA to fit within the confines of the cell's nucleus

synonym : genetic material, DNA packaging

(1) **chromatin** condensation, (2) **chromatin** structure
Chromatin-remodeling proteins play a crucial role in the accessibility of DNA to the transcription machinery, thereby influencing gene expression.

remodel

v. to change the structure or form of something
synonym: refurbish, remake, revamp

(1) **remodel** the car, (2) **remodel** portfolio

We are **remodeling** these rooms now.

scoot

v. to move or glide along quickly and smoothly on a surface, especially on a scooter or similar device
synonym: glide, slide, scurry

(1) **scoot** out of my room, (2) **scoot** over

I have to **scoot** over to the next desk because there's not enough room for me to sit comfortably.

transcribe

v. to copy or reproduce something in written or printed form; to translate spoken language into written text
synonym: copy, record, transliterate

(1) **transcribe** notes, (2) **transcribe** documents

She needs to **transcribe** the interview recording to write the article for the magazine.

disastrous

adj. extremely bad, harmful, or unsuccessful
synonym: catastrophic, destructive, fatal

(1) have **disastrous** consequences, (2) absolutely **disastrous** effect

The emission of hazardous substances has **disastrous** effects on the ecology of a region.

excise

n. a tax or duty that is levied on certain goods, commodities, or activities, often to raise revenue for the government; (verb) to remove or cut out
synonym: levy, tax, duty

(1) **excise** tax, (2) **excise** invoice

The government imposed an **excise** on tobacco products to discourage smoking.

unexplored

adj. not yet examined, investigated, or studied; lacking in knowledge or information; unknown or undiscovered

synonym: uncharted, undiscovered, untapped

(1) **unexplored** ideas, (2) **unexplored** cave

There are many **unexplored** regions of the ocean that scientists hope to study soon.

Session 2: Spelling

1. have dis_____us consequences *adj.* extremely bad, harmful, or unsuccessful
2. re_____l portfolio *v.* to change the structure or form of something
3. ap__y named *adv.* in a way that is appropriate or fitting; in a way that demonstrates understanding or intelligence
4. Al_____er's brain *n.* a neurodegenerative disease that causes memory loss, cognitive decline, and behavioral issues; is the most common cause of dementia in older adults
5. ov_____lm opponents by numbers *v.* to defeat someone or something by using a great deal of force; to have a strong emotional effect on somebody
6. vi_____ze flying through space *v.* to form a mental image or concept of something; to make something visible
7. Al_____er's risk factors *n.* a neurodegenerative disease that causes memory loss, cognitive decline, and behavioral issues; is the most common cause of dementia in older adults
8. ch_____in condensation *n.* a complex of DNA and protein found in eukaryotic cells, which primary function is to compact the DNA to fit within the confines of the cell's nucleus
9. in___e other tissues *v.* to enter aggressively into another's territory by military force for conquest and occupation

ANSWERS: 1. disastrous, 2. remodel, 3. aptly, 4. Alzheimer, 5. overwhelm, 6. visualize, 7. Alzheimer, 8. chromatin, 9. invade

10. ap__y timed *adv.* in a way that is appropriate or fitting; in a way that demonstrates understanding or intelligence
11. he was ov_____lmed with gratitude *v.* to defeat someone or something by using a great deal of force; to have a strong emotional effect on somebody
12. tra_____be documents *v.* to copy or reproduce something in written or printed form; to translate spoken language into written text
13. ac__n protein *n.* a protein found in muscle tissue that is involved in muscle contraction and movement
14. an_____e his soul *v.* to make something full of interest and energy
15. ex___e invoice *n.* a tax or duty that is levied on certain goods, commodities, or activities, often to raise revenue for the government; (verb) to remove or cut out
16. the pa_____en in the air *n.* a bacterium, virus, or other microorganism that causes disease
17. une_____ed ideas *adj.* not yet examined, investigated, or studied; lacking in knowledge or information; unknown or undiscovered
18. go___e up the competition *v.* to eat or swallow something hurriedly, noisily, and greedily; to make the sound of a male turkey
19. cytoplasmic dy___n *n.* a type of motor protein that moves along microtubules in cells, playing a key role in various cellular processes such as intracellular transport, mitosis, and ciliary and flagellar movement

ANSWERS: 10. aptly, 11. overwhelm, 12. transcribe, 13. actin, 14. animate, 15. excise, 16. pathogen, 17. unexplored, 18. gobble, 19. dynein

20. ch_____in structure *n.* a complex of DNA and protein found in eukaryotic cells, which primary function is to compact the DNA to fit within the confines of the cell's nucleus
21. dy___n motor *n.* a type of motor protein that moves along microtubules in cells, playing a key role in various cellular processes such as intracellular transport, mitosis, and ciliary and flagellar movement
22. hi_____e deacetylase *n.* a type of protein molecule that is responsible for packing and organizing DNA into a compact structure called chromatin within the nucleus of cells
23. hi_____e modification *n.* a type of protein molecule that is responsible for packing and organizing DNA into a compact structure called chromatin within the nucleus of cells
24. tu___e structure *n.* a small, tube-like structure; a minute duct or canal in a plant or animal body
25. ex___e tax *n.* a tax or duty that is levied on certain goods, commodities, or activities, often to raise revenue for the government; (verb) to remove or cut out
26. ac__n polymerization *n.* a protein found in muscle tissue that is involved in muscle contraction and movement
27. tra_____be notes *v.* to copy or reproduce something in written or printed form; to translate spoken language into written text
28. carbon fi_____nt *n.* a thin wire or thread, especially one used to produce light in an electric bulb

ANSWERS: 20. chromatin, 21. dynein, 22. histone, 23. histone, 24. tubule, 25. excise, 26. actin, 27. transcribe, 28. filament

29. fa_____te the young *v.* to attract and hold the attention of someone deeply and irresistibly
30. absolutely dis_____us effect *adj.* extremely bad, harmful, or unsuccessful
31. sc__t out of my room *v.* to move or glide along quickly and smoothly on a surface, especially on a scooter or similar device
32. renal tu___e *n.* a small, tube-like structure; a minute duct or canal in a plant or animal body
33. lon_____ge radar *adj.* relating to or extending over a long distance, period of time, or range of possibilities
34. lon_____ge weather forecast *adj.* relating to or extending over a long distance, period of time, or range of possibilities
35. cyt_____ton assembly *n.* a network of protein fibers and filaments that give shape and structural support to cells, as well as play a role in cell division, movement, and communication
36. in___e his privacy *v.* to enter aggressively into another's territory by military force for conquest and occupation
37. microtubule cyt_____ton *n.* a network of protein fibers and filaments that give shape and structural support to cells, as well as play a role in cell division, movement, and communication
38. or_____le protein *n.* a specialized subunit, usually within a cell, that has a specific function
39. fa_____te the public *v.* to attract and hold the attention of someone deeply and irresistibly

ANSWERS: 29. fascinate, 30. disastrous, 31. scoot, 32. tubule, 33. long-range, 34. long-range, 35. cytoskeleton, 36. invade, 37. cytoskeleton, 38. organelle, 39. fascinate

40. go___e down food *v.* to eat or swallow something hurriedly, noisily, and greedily; to make the sound of a male turkey
41. an_____e the body *v.* to make something full of interest and energy
42. une_____ed cave *adj.* not yet examined, investigated, or studied; lacking in knowledge or information; unknown or undiscovered
43. fi_____nt lamp *n.* a thin wire or thread, especially one used to produce light in an electric bulb
44. awe_____ing power *adj.* making you feel great respect or admiration through being impressive or formidable
45. awe_____ing painting *adj.* making you feel great respect or admiration through being impressive or formidable
46. plant pa_____en *n.* a bacterium, virus, or other microorganism that causes disease
47. ch_____t race *n.* a two-wheeled horse-drawn battle vehicle used in ancient Egypt, Greece, and Rome for warfare and racing
48. re_____l the car *v.* to change the structure or form of something
49. ch_____t builder *n.* a two-wheeled horse-drawn battle vehicle used in ancient Egypt, Greece, and Rome for warfare and racing
50. vi_____ze data *v.* to form a mental image or concept of something; to make something visible
51. cellular or_____les *n.* a specialized subunit, usually within a cell, that has a specific function

ANSWERS: 40. gobble, 41. animate, 42. unexplored, 43. filament, 44. awe-inspiring, 45. awe-inspiring, 46. pathogen, 47. chariot, 48. remodel, 49. chariot, 50. visualize, 51. organelle

52. sc__t over

v. to move or glide along quickly and smoothly on a surface, especially on a scooter or similar device

ANSWERS: 52. scoot

Session 3: Fill in the Blanks

1. The government imposed an _____ on tobacco products to discourage smoking.
n. a tax or duty that is levied on certain goods, commodities, or activities, often to raise revenue for the government; (verb) to remove or cut out
2. She tried to _____ the layout of the new house in her mind.
v. to form a mental image or concept of something; to make something visible
3. She needs to _____ the interview recording to write the article for the magazine.
v. to copy or reproduce something in written or printed form; to translate spoken language into written text
4. She _____ described the complex scientific concept in simple terms everyone could understand.
adv. in a way that is appropriate or fitting; in a way that demonstrates understanding or intelligence
5. The moment the glacier collapses is an _____ sight.
adj. making you feel great respect or admiration through being impressive or formidable
6. The emission of hazardous substances has _____ effects on the ecology of a region.
adj. extremely bad, harmful, or unsuccessful
7. mRNA vaccines are approved faster because they do not contain inactivated _____.
n. a bacterium, virus, or other microorganism that causes disease

ANSWERS: 1. excise, 2. visualize, 3. transcribe, 4. aptly, 5. awe-inspiring, 6. disastrous, 7. pathogens

8. The _____ in the light bulb burned out, and now it's not working.
n. a thin wire or thread, especially one used to produce light in an electric bulb
9. The _____ filaments are responsible for maintaining cell shape and movement.
n. a protein found in muscle tissue that is involved in muscle contraction and movement
10. I always _____ my breakfast quickly because I'm usually in a rush.
v. to eat or swallow something hurriedly, noisily, and greedily; to make the sound of a male turkey
11. The ancient Romans enjoyed spectating _____ races.
n. a two-wheeled horse-drawn battle vehicle used in ancient Egypt, Greece, and Rome for warfare and racing
12. Membranes bind these _____ together.
n. a specialized subunit, usually within a cell, that has a specific function
13. I have no intention to _____ your privacy.
v. to enter aggressively into another's territory by military force for conquest and occupation
14. The magic tricks _____ the children.
v. to attract and hold the attention of someone deeply and irresistibly
15. My grandmother has _____ disease requires special care and attention from her caregivers.
n. a neurodegenerative disease that causes memory loss, cognitive decline, and behavioral issues; is the most common cause of dementia in older adults

ANSWERS: 8. filament, 9. actin, 10. gobble, 11. chariot, 12. organelles, 13. invade, 14. fascinated, 15. Alzheimer's

16. The kidney comprises tiny _____ that filter waste from the bloodstream.
n. a small, tube-like structure; a minute duct or canal in a plant or animal body
17. There are many _____ regions of the ocean that scientists hope to study soon.
adj. not yet examined, investigated, or studied; lacking in knowledge or information; unknown or undiscovered
18. The DNA molecule wraps around the _____ proteins to form a nucleosome.
n. a type of protein molecule that is responsible for packing and organizing DNA into a compact structure called chromatin within the nucleus of cells
19. The positive attitude of the supervisor _____ the discussion.
v. to make something full of interest and energy
20. Inhibition of _____ activity has been proposed as a potential therapeutic target for cancer treatment.
n. a type of motor protein that moves along microtubules in cells, playing a key role in various cellular processes such as intracellular transport, mitosis, and ciliary and flagellar movement
21. _____ proteins play a crucial role in the accessibility of DNA to the transcription machinery, thereby influencing gene expression.
n. a complex of DNA and protein found in eukaryotic cells, which primary function is to compact the DNA to fit within the confines of the cell's nucleus
22. The military uses _____ missiles to hit targets from far away.
adj. relating to or extending over a long distance, period of time, or range of possibilities

ANSWERS: 16. tubules, 17. unexplored, 18. histone, 19. animated, 20. dynein, 21. Chromatin-remodeling, 22. long-range

23. Too much variety may _____ and confuse viewers.

- v. to defeat someone or something by using a great deal of force; to have a strong emotional effect on somebody

24. The _____ structure within a cell is critical for maintaining cellular integrity and shape.

- n. a network of protein fibers and filaments that give shape and structural support to cells, as well as play a role in cell division, movement, and communication

25. We are _____ these rooms now.

- v. to change the structure or form of something

26. I have to _____ over to the next desk because there's not enough room for me to sit comfortably.

- v. to move or glide along quickly and smoothly on a surface, especially on a scooter or similar device

ANSWERS: 23. overwhelm, 24. cytoskeleton-provided, 25. remodeling, 26. scoot