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Vocabulary Builder Reference from...

Nina Tandon: Could tissue engineering mean personalized medicine? | TED Talk

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

Advanced Words Only

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Session 1: Word List

humming

adj. producing a continuous, low, vibrating sound like that of the bee

synonym : buzzing, droning, vibrating

(1) **humming** sound, (2) **humming** bird

The **humming** of the bees filled the air as she walked through the garden.

mimic

v. to imitate someone's speech, movement, or behavior, especially to make others laugh

synonym : mirror, imitate, ape

(1) **mimic** a human voice, (2) **mimic** numerous instruments

He is very popular at school because he can **mimic** all the teachers' accents.

pluripotent

adj. describing cells that have the potential to differentiate into any specialized cell in the body, often used in the context of stem cell research and applications

synonym : versatile, all-purpose, adaptable

(1) **pluripotent** embryonic cells, (2) **pluripotent** gene expression

Pluripotent stem cells can differentiate into any cell in the body.

embryonic

adj. of or relating to an embryo (= an animal organism in the early stages of growth); in an early stage of development

synonym : embryonal

(1) **embryonic** stem cells, (2) **embryonic** development

The project is still in its **embryonic** stage.

amnesia

n. a condition in which a person is unable to remember things, often as a result of brain damage, shock, or illness

synonym : forgetfulness, blackout, memory loss

(1) childhood **amnesia**, (2) **amnesia** by trauma

The accident caused her to suffer from temporary **amnesia**, and she couldn't remember anything that happened before the collision.

schematic

adj. relating to or in the form of a scheme or diagram; showing the structure or organization of something

synonym : diagrammatic, blueprint, structural

(1) **schematic** model, (2) simplified **schematic**

The engineer used a **schematic** diagram to plan out the wiring for the new building.

bioreactor

n. a device or system used to cultivate living cells, tissues, or organisms for industrial or research purposes

synonym : fermenter

(1) **bioreactor** engineering, (2) anaerobic **bioreactor**

The scientists optimized the conditions in the **bioreactor** to increase the yield of the desired product.

neuron

n. a cell that is specialized to carry information within the brain and between the brain and other parts of the body

synonym : nerve cell

(1) excite the **neurons**, (2) **neuron** cell body

Our body transfers information along each **neuron** using an electrical impulse.

retinitis

n. an inflammation of the retina (= the thin, light-sensitive tissue that lines the inside surface of the eye) which can cause decreased vision or possibly lead to blindness

synonym : retinal inflammation, retinopathy

(1) **retinitis** treatment, (2) infectious **retinitis**

Retinitis pigmentosa is a group of genetic disorders that affect the retina's ability to respond to light.

pigment

n. a substance that gives color to a material, such as paint, ink, or biological tissue; often derived from natural sources or synthetically produced

synonym : dye, colorant, tint

(1) skin **pigment**, (2) **pigment** accumulation

The use of synthetic **pigments** in food production has become controversial due to health concerns.

degenerate

v. (of a person, animal, or plant) to become worse in health or physical condition

synonym : deteriorate, decline, decay

(1) **degenerate** into a disagreement, (2) **degenerate** into recession

The once-thriving city has **degenerated** into a crime-ridden slum.

retina

n. the innermost light-sensitive membrane covering the back wall of the eyeball

(1) **retinal** cells, (2) **retina** scanner

Damage to the **retina** may play a role in the development of glaucoma.

byproduct

n. a secondary or incidental product produced in the manufacture or synthesis of something else

synonym : side effect, spinoff, outgrowth

(1) toxic **byproducts**, (2) **byproduct** of technology

The **byproduct** of the energy production process is a large amount of carbon dioxide emissions.

antidepressant

n. any of a class of drugs used to reduce feelings of sadness and worry

(1) an **antidepressant** drug, (2) **antidepressant** effect
She has been taking **antidepressants** since her baby died.

personalize

v. to make something or an experience specific to an individual or group, often through adding personal details or tailoring it to their preferences or needs; to add personal details or information to something

synonym: customize, individualize, tailor

(1) **personalize** social media profile, (2) **personalize** my workspace

I like to **personalize** my phone case with a picture of my dog.

poise

n. a calm, confident, and graceful manner with control of your feelings or behavior

synonym: confidence, grace, calmness

(1) aesthetic **poise**, (2) with easy **poise**

He took a deep breath and recovered a little of his **poise**.

revolutionize

v. to bring about a complete or radical change in something, often through the introduction of new methods or ideas

synonym: transform, innovate, modernize

(1) **revolutionize** the industry, (2) **revolutionize** the technology

The invention of the smartphone **revolutionized** the way we communicate with each other.

individualize

v. to make something personal or more personal to suit the needs of a particular person, place, etc.

synonym: personalize, differentiate

(1) **individualize** each patient, (2) **individualize** dosages

Our schools offer **individualized** education by excellent teachers.

disrupt

v. to prevent or stop something, especially an event, activity, or process, from continuing in the usual way by causing a problem or disturbance

synonym: interrupt, disturb, break into

(1) **disrupt** a well-ordered condition, (2) **disrupt** sleep
I'm so sorry to **disrupt** you when you're pretty busy.

cheaply

adv. in a stingy or inexpensive manner

synonym: inexpensively, tattily, stingily

(1) **cheaply** available, (2) buy stock **cheaply**
You can live very **cheaply** in Southeast Asia.

Session 2: Spelling

- | | |
|------------------------------|---|
| 1. childhood am_____a | <i>n.</i> a condition in which a person is unable to remember things, often as a result of brain damage, shock, or illness |
| 2. di_____t sleep | <i>v.</i> to prevent or stop something, especially an event, activity, or process, from continuing in the usual way by causing a problem or disturbance |
| 3. re____a scanner | <i>n.</i> the innermost light-sensitive membrane covering the back wall of the eyeball |
| 4. per_____ze my workspace | <i>v.</i> to make something or an experience specific to an individual or group, often through adding personal details or tailoring it to their preferences or needs; to add personal details or information to something |
| 5. bio_____or engineering | <i>n.</i> a device or system used to cultivate living cells, tissues, or organisms for industrial or research purposes |
| 6. deg_____te into recession | <i>v.</i> (of a person, animal, or plant) to become worse in health or physical condition |
| 7. with easy po__e | <i>n.</i> a calm, confident, and graceful manner with control of your feelings or behavior |
| 8. ne____n cell body | <i>n.</i> a cell that is specialized to carry information within the brain and between the brain and other parts of the body |

ANSWERS: 1. amnesia, 2. disrupt, 3. retina, 4. personalize, 5. bioreactor, 6. degenerate, 7. poise, 8. neuron

9. ant_____ant effect *n.* any of a class of drugs used to reduce feelings of sadness and worry
10. buy stock ch_____y *adv.* in a stingy or inexpensive manner
11. deg_____te into a disagreement *v.* (of a person, animal, or plant) to become worse in health or physical condition
12. skin pi_____t *n.* a substance that gives color to a material, such as paint, ink, or biological tissue; often derived from natural sources or synthetically produced
13. di_____t a well-ordered condition *v.* to prevent or stop something, especially an event, activity, or process, from continuing in the usual way by causing a problem or disturbance
14. plu_____nt embryonic cells *adj.* describing cells that have the potential to differentiate into any specialized cell in the body, often used in the context of stem cell research and applications
15. an ant_____ant drug *n.* any of a class of drugs used to reduce feelings of sadness and worry
16. simplified sc_____ic *adj.* relating to or in the form of a scheme or diagram; showing the structure or organization of something
17. per_____ze social media profile *v.* to make something or an experience specific to an individual or group, often through adding personal details or tailoring it to their preferences or needs; to add personal details or information to something

ANSWERS: 9. antidepressant, 10. cheaply, 11. degenerate, 12. pigment, 13. disrupt, 14. pluripotent, 15. antidepressant, 16. schematic, 17. personalize

18. em_____ic development *adj.* of or relating to an embryo (= an animal organism in the early stages of growth); in an early stage of development
19. ind_____ize dosages *v.* to make something personal or more personal to suit the needs of a particular person, place, etc.
20. ch_____y available *adv.* in a stingy or inexpensive manner
21. pi_____t accumulation *n.* a substance that gives color to a material, such as paint, ink, or biological tissue; often derived from natural sources or synthetically produced
22. plu_____nt gene expression *adj.* describing cells that have the potential to differentiate into any specialized cell in the body, often used in the context of stem cell research and applications
23. aesthetic po___e *n.* a calm, confident, and graceful manner with control of your feelings or behavior
24. sc_____ic model *adj.* relating to or in the form of a scheme or diagram; showing the structure or organization of something
25. hu_____g bird *adj.* producing a continuous, low, vibrating sound like that of the bee
26. mi__c numerous instruments *v.* to imitate someone's speech, movement, or behavior, especially to make others laugh
27. anaerobic bio_____or *n.* a device or system used to cultivate living cells, tissues, or organisms for industrial or research purposes
28. infectious re_____is *n.* an inflammation of the retina (= the thin, light-sensitive tissue that lines the inside surface of the eye) which can cause decreased vision or possibly lead to blindness

ANSWERS: 18. embryonic, 19. individualize, 20. cheaply, 21. pigment, 22. pluripotent, 23. poise, 24. schematic, 25. humming, 26. mimic, 27. bioreactor, 28. retinitis

29. em_____ic stem cells *adj.* of or relating to an embryo (= an animal organism in the early stages of growth); in an early stage of development
30. rev_____ize the technology *v.* to bring about a complete or radical change in something, often through the introduction of new methods or ideas
31. mi__c a human voice *v.* to imitate someone's speech, movement, or behavior, especially to make others laugh
32. re___al cells *n.* the innermost light-sensitive membrane covering the back wall of the eyeball
33. re_____is treatment *n.* an inflammation of the retina (= the thin, light-sensitive tissue that lines the inside surface of the eye) which can cause decreased vision or possibly lead to blindness
34. toxic by_____cts *n.* a secondary or incidental product produced in the manufacture or synthesis of something else
35. hu_____g sound *adj.* producing a continuous, low, vibrating sound like that of the bee
36. am_____a by trauma *n.* a condition in which a person is unable to remember things, often as a result of brain damage, shock, or illness
37. ind_____ize each patient *v.* to make something personal or more personal to suit the needs of a particular person, place, etc.
38. by_____ct of technology *n.* a secondary or incidental product produced in the manufacture or synthesis of something else

ANSWERS: 29. embryonic, 30. revolutionize, 31. mimic, 32. retina, 33. retinitis, 34. byproduct, 35. humming, 36. amnesia, 37. individualize, 38. byproduct

39. excite the ne___ns

n. a cell that is specialized to carry information within the brain and between the brain and other parts of the body

40. rev_____ize the industry

v. to bring about a complete or radical change in something, often through the introduction of new methods or ideas

ANSWERS: 39. neuron, 40. revolutionize

Session 3: Fill in the Blanks

1. The _____ of the bees filled the air as she walked through the garden.
adj. producing a continuous, low, vibrating sound like that of the bee
2. The scientists optimized the conditions in the _____ to increase the yield of the desired product.
n. a device or system used to cultivate living cells, tissues, or organisms for industrial or research purposes
3. Our body transfers information along each _____ using an electrical impulse.
n. a cell that is specialized to carry information within the brain and between the brain and other parts of the body
4. The _____ of the energy production process is a large amount of carbon dioxide emissions.
n. a secondary or incidental product produced in the manufacture or synthesis of something else
5. Damage to the _____ may play a role in the development of glaucoma.
n. the innermost light-sensitive membrane covering the back wall of the eyeball
6. _____ pigmentosa is a group of genetic disorders that affect the retina's ability to respond to light.
n. an inflammation of the retina (= the thin, light-sensitive tissue that lines the inside surface of the eye) which can cause decreased vision or possibly lead to blindness
7. I like to _____ my phone case with a picture of my dog.
v. to make something or an experience specific to an individual or group, often through adding personal details or tailoring it to their preferences or needs; to add personal details or information to something

ANSWERS: 1. humming, 2. bioreactor, 3. neuron, 4. byproduct, 5. retina, 6. Retinitis, 7. personalize

8. The engineer used a _____ diagram to plan out the wiring for the new building.

adj. relating to or in the form of a scheme or diagram; showing the structure or organization of something

9. He is very popular at school because he can _____ all the teachers' accents.

v. to imitate someone's speech, movement, or behavior, especially to make others laugh

10. The invention of the smartphone _____ the way we communicate with each other.

v. to bring about a complete or radical change in something, often through the introduction of new methods or ideas

11. The project is still in its _____ stage.

adj. of or relating to an embryo (= an animal organism in the early stages of growth); in an early stage of development

12. You can live very _____ in Southeast Asia.

adv. in a stingy or inexpensive manner

13. Our schools offer _____ education by excellent teachers.

v. to make something personal or more personal to suit the needs of a particular person, place, etc.

14. I'm so sorry to _____ you when you're pretty busy.

v. to prevent or stop something, especially an event, activity, or process, from continuing in the usual way by causing a problem or disturbance

15. The accident caused her to suffer from temporary _____ and she couldn't remember anything that happened before the collision.

n. a condition in which a person is unable to remember things, often as a result of brain damage, shock, or illness

ANSWERS: 8. schematic, 9. mimic, 10. revolutionized, 11. embryonic, 12. cheaply, 13. individualized, 14. disrupt, 15. amnesia,

16. The use of synthetic _____ in food production has become controversial due to health concerns.
- n.* a substance that gives color to a material, such as paint, ink, or biological tissue; often derived from natural sources or synthetically produced
17. She has been taking _____ since her baby died.
- n.* any of a class of drugs used to reduce feelings of sadness and worry
18. The once-thriving city has _____ into a crime-ridden slum.
- v.* (of a person, animal, or plant) to become worse in health or physical condition
19. He took a deep breath and recovered a little of his _____.
- n.* a calm, confident, and graceful manner with control of your feelings or behavior
20. _____ stem cells can differentiate into any cell in the body.
- adj.* describing cells that have the potential to differentiate into any specialized cell in the body, often used in the context of stem cell research and applications

ANSWERS: 16. pigments, 17. antidepressants, 18. degenerated, 19. poise, 20. Pluripotent