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Vocabulary Builder Reference from...

Danny Hillis: Understanding cancer through proteomics | TED Talk

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

Advanced Words Only

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Session 1: Word List

proteome

n. the entire complement of proteins that can be expressed by a genome, cell, tissue, or organism, including all of its functional forms and modifications

(1) bacterial **proteome**, (2) **proteome** database

Scientists are studying the human **proteome** to understand better how proteins work in the body.

blueprint

n. a photographic print of an early plan for a building or machine

synonym: draft, prototype, sketch

(1) **blueprint** for economic reform, (2) architect's **blueprint**

A business plan is a **blueprint** for your success.

larder

n. a room or cupboard in which food supplies, especially perishable ones like meat and dairy products, are stored; a supply of food and provisions, typically stored for future use

synonym: pantry, storage, cupboard

(1) well-stocked **larder**, (2) spacious **larder**

During the power outage, they relied heavily on their emergency **larder**, filled with non-perishable foods.

margarine

n. a yellow substance made from vegetable oils or a blend of vegetable and animal fats, commonly used as a substitute for butter and is typically lower in saturated fat and cholesterol

synonym: oleo, spread, butter substitute

(1) **margarine** spread, (2) vegetable **margarine**

My mom always switches butter for **margarine** in recipes.

cyst

n. a sac, cavity, or abnormal growth in the body that is typically filled with fluid or semisolid material; usually benign but can also be cancerous and require treatment

synonym: abscess, sac, lump

(1) **cyst** removal, (2) ovarian **cyst**

The patient was sent for an X-ray to determine the cause of the **cyst** in her abdomen.

fibrosis

n. the formation of excess fibrous connective tissue in an organ or tissue, often associated with inflammation, scarring, or injury; a pathological condition that can affect various organs and tissues of the body, leading to impaired function and potential organ failure

synonym: scarring, hardening, fibrotic disease

(1) **fibrosis** diagnosis, (2) pulmonary **fibrosis**

The doctor diagnosed him with cardiac **fibrosis**, which put him at risk for heart failure.

predisposition

n. a tendency or inclination to a particular behavior or condition, often due to genetic or environmental factors

synonym: tendency, inclination, disposition

(1) **predisposition** to anxiety, (2) genetic **predisposition**

Smoking can increase a person's **predisposition** to lung cancer.

crick

n. sharp pain or stiffness in the neck or back that typically results from a sudden twisting or wrenching movement

synonym: cramp, kink, spasm

(1) stiff **crick**, (2) **crick** in the back

I woke up with a **crick** in my neck from sleeping in an awkward position.

oncology

n. the branch of medicine that deals with the study and treatment of tumors, especially malignancies

synonym: cancer treatment, study of tumors

(1) **oncology** center, (2) modern **oncology** treatment

The pharmaceutical company unveiled its latest breakthrough drug for the **oncology** market.

gore

v. to pierce with a sharp object, causing injury or death; (noun) coagulated blood from a wound

synonym: pierce, stab, puncture

(1) **gore** him with a weapon, (2) **gore** scene

The hunter **gored** the deer with an arrow.

resourceful

adj. showing creativity and ability to find quick and practical solutions to problems

synonym: inventive, imaginative, clever

(1) **resourceful** thinker, (2) **resourceful** cook in town

She was **resourceful** and found a solution to the problem on her own.

sip

v. to drink a liquid by taking small mouthfuls; (noun) a small drink

synonym: taste, sample, drink

(1) **sip** a drink, (2) take a **sip** of beer

He **sipped** his tea slowly, savoring the taste.

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.

robotic

adj. of or relating to mechanical robots; (robotics) the interdisciplinary branch of computer science and engineering with the practical use of robots

synonym : automated, mechanical, laborsaving

(1) **robotic** arm, (2) **robotic** guide operation

The surgeon removed the tumor using **robotic** video assistance.

slippery

adj. difficult to hold firmly or stand on because it is wet or smooth; not to be trusted

synonym : smooth, glistening, furtive

(1) a **slippery** customer, (2) **slippery** ice

How extraordinarily **slippery** a liar the camera is.

smudge

n. a blurry or dirty mark or stain left by rubbing or smearing something; also, a bundle of material, such as sage or incense, that is burned to produce smoke for purification or ritual purposes

synonym : blemish, mark, stain

(1) ink **smudge**, (2) lipstick **smudge**

She accidentally left a **smudge** on the newly painted wall.

isotope

n. a variation of an element that has the same number of protons in its nucleus but a different number of neutrons, resulting in a different atomic mass and often different physical or chemical properties

synonym : variant, nuclide, radioisotope

(1) radioactive **isotope**, (2) stable **isotope**

The **isotope** carbon-14 is commonly used in radiocarbon dating of fossils.

medicinal

adj. of or relating to the treatment or cure of disease

synonym : curative, therapeutic, healing

(1) **medicinal** chemistry, (2) traditional **medicinal**

The **medicinal** properties of this herb have been known to help with various ailments.

germ

n. a very tiny living that causes the disease; a piece of something such as an organism, concept, etc., capable of growing into a new one or part of one

synonym : bacterium, microbe, pathogen

(1) antibiotic-resistant **germ**, (2) a **germ-free** environment

The **germ** of his idea came from watching birds flying in flocks.

scientifically

adv. in a way that relates to science or is connected with science

(1) investigate **scientifically**, (2) **scientifically** explainable

The hypothesis is not yet **scientifically** proven.

syphilis

n. a sexually transmitted disease caused by the bacterium *Treponema pallidum*, characterized by multiple stages and a wide range of symptoms

synonym : STD, venereal disease, sexually transmitted infection

(1) oral **syphilis**, (2) late-stage **syphilis**

Untreated **syphilis** can cause serious health problems.

penicillin

n. an antibiotic drug derived from mold and used to treat bacterial infections

synonym : antibiotic, bacitracin

(1) **penicillin** allergy, (2) **penicillin** sensitivity testing

The doctor prescribed **penicillin** to treat the bacterial infection.

quinine

n. a bitter-tasting alkaloid compound found in the bark of certain cinchona trees, used in medicine to treat malaria

(1) natural **quinine**, (2) **quinine** bark

The tonic water in my drink contains **quinine**, giving it a slightly bitter taste.

miraculous

adj. very effective or lucky, or completely unexpected

synonym : amazing, astonishing, awesome

(1) a **miraculous** encounter, (2) go through a **miraculous** change

He made a **miraculous** recovery.

plumber

n. a person who installs and repairs the pipes and fixtures of a water supply, heating system, or drainage system

synonym: pipefitter, pipeline engineer

(1) **plumber's** wrench, (2) licensed **plumber**

I had to call a **plumber** to fix the leaky faucet in my bathroom.

sprinkler

n. a device that sprays water over a large area used especially for watering crops or gardens or for firefighting

synonym: sprayer, irrigation system

(1) road **sprinkler**, (2) **sprinkler** irrigation

The **sprinkler** system kept the lawn green and healthy.

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.

splint

n. a rigid or flexible device used to immobilize or support a broken or injured bone or joint, often made of wood, metal, or other sturdy materials and commonly used in first aid or medical settings

synonym: brace, support

(1) **splint** bandage, (2) arm **splint**

After my skiing accident, I had to wear a leg **splint** for several weeks.

Session 2: Spelling

1. sp_____er irrigation *n.* a device that sprays water over a large area used especially for watering crops or gardens or for firefighting
2. investigate sci_____lly *adv.* in a way that relates to science or is connected with science
3. ro_____c arm *adj.* of or relating to mechanical robots; (robotics) the interdisciplinary branch of computer science and engineering with the practical use of robots
4. antibiotic-resistant g__m *n.* a very tiny living that causes the disease; a piece of something such as an organism, concept, etc., capable of growing into a new one or part of one
5. go through a mir_____us change *adj.* very effective or lucky, or completely unexpected
6. ro_____c guide operation *adj.* of or relating to mechanical robots; (robotics) the interdisciplinary branch of computer science and engineering with the practical use of robots
7. spacious la____r *n.* a room or cupboard in which food supplies, especially perishable ones like meat and dairy products, are stored; a supply of food and provisions, typically stored for future use
8. pl_____r's wrench *n.* a person who installs and repairs the pipes and fixtures of a water supply, heating system, or drainage system

ANSWERS: 1. sprinkler, 2. scientifically, 3. robotic, 4. germ, 5. miraculous, 6. robotic, 7. larder, 8. plumber

9. genetic pre_____ion *n.* a tendency or inclination to a particular behavior or condition, often due to genetic or environmental factors
10. architect's bl_____nt *n.* a photographic print of an early plan for a building or machine
11. traditional me_____al *adj.* of or relating to the treatment or cure of disease
12. licensed pl_____r *n.* a person who installs and repairs the pipes and fixtures of a water supply, heating system, or drainage system
13. well-stocked la____r *n.* a room or cupboard in which food supplies, especially perishable ones like meat and dairy products, are stored; a supply of food and provisions, typically stored for future use
14. me_____al chemistry *adj.* of or relating to the treatment or cure of disease
15. pen_____in allergy *n.* an antibiotic drug derived from mold and used to treat bacterial infections
16. late-stage sy_____is *n.* a sexually transmitted disease caused by the bacterium *Treponema pallidum*, characterized by multiple stages and a wide range of symptoms
17. c__t removal *n.* a sac, cavity, or abnormal growth in the body that is typically filled with fluid or semisolid material; usually benign but can also be cancerous and require treatment
18. deg_____te into a disagreement *v.* (of a person, animal, or plant) to become worse in health or physical condition

ANSWERS: 9. predisposition, 10. blueprint, 11. medicinal, 12. plumber, 13. larder, 14. medicinal, 15. penicillin, 16. syphilis, 17. cyst, 18. degenerate

19. hu____g sound *adj.* producing a continuous, low, vibrating sound like that of the bee
20. a g__m-free environment *n.* a very tiny living that causes the disease; a piece of something such as an organism, concept, etc., capable of growing into a new one or part of one
21. pulmonary fi____is *n.* the formation of excess fibrous connective tissue in an organ or tissue, often associated with inflammation, scarring, or injury; a pathological condition that can affect various organs and tissues of the body, leading to impaired function and potential organ failure
22. fi____is diagnosis *n.* the formation of excess fibrous connective tissue in an organ or tissue, often associated with inflammation, scarring, or injury; a pathological condition that can affect various organs and tissues of the body, leading to impaired function and potential organ failure
23. g__e him with a weapon *v.* to pierce with a sharp object, causing injury or death; (noun) coagulated blood from a wound
24. deg_____te into recession *v.* (of a person, animal, or plant) to become worse in health or physical condition
25. a mir_____us encounter *adj.* very effective or lucky, or completely unexpected

ANSWERS: 19. humming, 20. germ, 21. fibrosis, 22. fibrosis, 23. gore, 24. degenerate, 25. miraculous

26. pen_____in sensitivity testing *n.* an antibiotic drug derived from mold and used to treat bacterial infections
27. arm sp____t *n.* a rigid or flexible device used to immobilize or support a broken or injured bone or joint, often made of wood, metal, or other sturdy materials and commonly used in first aid or medical settings
28. modern on_____gy treatment *n.* the branch of medicine that deals with the study and treatment of tumors, especially malignancies
29. ma_____ne spread *n.* a yellow substance made from vegetable oils or a blend of vegetable and animal fats, commonly used as a substitute for butter and is typically lower in saturated fat and cholesterol
30. a sl_____ry customer *adj.* difficult to hold firmly or stand on because it is wet or smooth; not to be trusted
31. lipstick sm____e *n.* a blurry or dirty mark or stain left by rubbing or smearing something; also, a bundle of material, such as sage or incense, that is burned to produce smoke for purification or ritual purposes
32. res_____ul thinker *adj.* showing creativity and ability to find quick and practical solutions to problems
33. qu_____e bark *n.* a bitter-tasting alkaloid compound found in the bark of certain cinchona trees, used in medicine to treat malaria

ANSWERS: 26. penicillin, 27. splint, 28. oncology, 29. margarine, 30. slippery, 31. smudge, 32. resourceful, 33. quinine

34. ovarian c__t *n.* a sac, cavity, or abnormal growth in the body that is typically filled with fluid or semisolid material; usually benign but can also be cancerous and require treatment
35. hu____g bird *adj.* producing a continuous, low, vibrating sound like that of the bee
36. bacterial pr____me *n.* the entire complement of proteins that can be expressed by a genome, cell, tissue, or organism, including all of its functional forms and modifications
37. stable is____e *n.* a variation of an element that has the same number of protons in its nucleus but a different number of neutrons, resulting in a different atomic mass and often different physical or chemical properties
38. road sp____er *n.* a device that sprays water over a large area used especially for watering crops or gardens or for firefighting
39. natural qu____e *n.* a bitter-tasting alkaloid compound found in the bark of certain cinchona trees, used in medicine to treat malaria
40. on____gy center *n.* the branch of medicine that deals with the study and treatment of tumors, especially malignancies
41. s_p a drink *v.* to drink a liquid by taking small mouthfuls; (noun) a small drink
42. sl____ry ice *adj.* difficult to hold firmly or stand on because it is wet or smooth; not to be trusted

ANSWERS: 34. cyst, 35. humming, 36. proteome, 37. isotope, 38. sprinkler, 39. quinine, 40. oncology, 41. sip, 42. slippery

43. g__e scene *v.* to pierce with a sharp object, causing injury or death; (noun) coagulated blood from a wound
44. oral sy____is *n.* a sexually transmitted disease caused by the bacterium *Treponema pallidum*, characterized by multiple stages and a wide range of symptoms
45. bl_____nt for economic reform *n.* a photographic print of an early plan for a building or machine
46. radioactive is____e *n.* a variation of an element that has the same number of protons in its nucleus but a different number of neutrons, resulting in a different atomic mass and often different physical or chemical properties
47. cr__k in the back *n.* sharp pain or stiffness in the neck or back that typically results from a sudden twisting or wrenching movement
48. vegetable ma_____ne *n.* a yellow substance made from vegetable oils or a blend of vegetable and animal fats, commonly used as a substitute for butter and is typically lower in saturated fat and cholesterol
49. res_____ul cook in town *adj.* showing creativity and ability to find quick and practical solutions to problems
50. sp___t bandage *n.* a rigid or flexible device used to immobilize or support a broken or injured bone or joint, often made of wood, metal, or other sturdy materials and commonly used in first aid or medical settings

ANSWERS: 43. gore, 44. syphilis, 45. blueprint, 46. isotope, 47. crick, 48. margarine, 49. resourceful, 50. splint

51. take a s_p of beer *v.* to drink a liquid by taking small mouthfuls; (noun) a small drink
52. pre_____ion to anxiety *n.* a tendency or inclination to a particular behavior or condition, often due to genetic or environmental factors
53. ink sm___e *n.* a blurry or dirty mark or stain left by rubbing or smearing something; also, a bundle of material, such as sage or incense, that is burned to produce smoke for purification or ritual purposes
54. pr_____me database *n.* the entire complement of proteins that can be expressed by a genome, cell, tissue, or organism, including all of its functional forms and modifications
55. stiff cr__k *n.* sharp pain or stiffness in the neck or back that typically results from a sudden twisting or wrenching movement
56. sci_____lly explainable *adv.* in a way that relates to science or is connected with science

ANSWERS: 51. sip, 52. predisposition, 53. smudge, 54. proteome, 55. crick, 56. scientifically

Session 3: Fill in the Blanks

1. During the power outage, they relied heavily on their emergency _____ filled with non-perishable foods.
 - n.* a room or cupboard in which food supplies, especially perishable ones like meat and dairy products, are stored; a supply of food and provisions, typically stored for future use
2. The doctor diagnosed him with cardiac _____ which put him at risk for heart failure.
 - n.* the formation of excess fibrous connective tissue in an organ or tissue, often associated with inflammation, scarring, or injury; a pathological condition that can affect various organs and tissues of the body, leading to impaired function and potential organ failure
3. She was _____ and found a solution to the problem on her own.
 - adj.* showing creativity and ability to find quick and practical solutions to problems
4. The hunter _____ the deer with an arrow.
 - v.* to pierce with a sharp object, causing injury or death; (noun) coagulated blood from a wound
5. Scientists are studying the human _____ to understand better how proteins work in the body.
 - n.* the entire complement of proteins that can be expressed by a genome, cell, tissue, or organism, including all of its functional forms and modifications
6. Smoking can increase a person's _____ to lung cancer.
 - n.* a tendency or inclination to a particular behavior or condition, often due to genetic or environmental factors

ANSWERS: 1. larder, 2. fibrosis, 3. resourceful, 4. gored, 5. proteome, 6. predisposition

7. The pharmaceutical company unveiled its latest breakthrough drug for the _____ market.
- n.* the branch of medicine that deals with the study and treatment of tumors, especially malignancies
8. My mom always switches butter for _____ in recipes.
- n.* a yellow substance made from vegetable oils or a blend of vegetable and animal fats, commonly used as a substitute for butter and is typically lower in saturated fat and cholesterol
9. The surgeon removed the tumor using _____ video assistance.
- adj.* of or relating to mechanical robots; (robotics) the interdisciplinary branch of computer science and engineering with the practical use of robots
10. 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
11. A business plan is a _____ for your success.
- n.* a photographic print of an early plan for a building or machine
12. The _____ of his idea came from watching birds flying in flocks.
- n.* a very tiny living that causes the disease; a piece of something such as an organism, concept, etc., capable of growing into a new one or part of one
13. I woke up with a _____ in my neck from sleeping in an awkward position.
- n.* sharp pain or stiffness in the neck or back that typically results from a sudden twisting or wrenching movement
14. He _____ his tea slowly, savoring the taste.
- v.* to drink a liquid by taking small mouthfuls; (noun) a small drink

ANSWERS: 7. oncology, 8. margarine, 9. robotic, 10. humming, 11. blueprint, 12. germ, 13. crick, 14. sipped

15. How extraordinarily _____ a liar the camera is.

adj. difficult to hold firmly or stand on because it is wet or smooth; not to be trusted

16. The doctor prescribed _____ to treat the bacterial infection.

n. an antibiotic drug derived from mold and used to treat bacterial infections

17. 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

18. After my skiing accident, I had to wear a leg _____ for several weeks.

n. a rigid or flexible device used to immobilize or support a broken or injured bone or joint, often made of wood, metal, or other sturdy materials and commonly used in first aid or medical settings

19. He made a _____ recovery.

adj. very effective or lucky, or completely unexpected

20. She accidentally left a _____ on the newly painted wall.

n. a blurry or dirty mark or stain left by rubbing or smearing something; also, a bundle of material, such as sage or incense, that is burned to produce smoke for purification or ritual purposes

21. The _____ properties of this herb have been known to help with various ailments.

adj. of or relating to the treatment or cure of disease

22. Untreated _____ can cause serious health problems.

n. a sexually transmitted disease caused by the bacterium *Treponema pallidum*, characterized by multiple stages and a wide range of symptoms

ANSWERS: 15. slippery, 16. penicillin, 17. degenerated, 18. splint, 19. miraculous, 20. smudge, 21. medicinal, 22. syphilis

23. The patient was sent for an X-ray to determine the cause of the _____ in her abdomen.
- n.* a sac, cavity, or abnormal growth in the body that is typically filled with fluid or semisolid material; usually benign but can also be cancerous and require treatment
24. The tonic water in my drink contains _____ giving it a slightly bitter taste.
- n.* a bitter-tasting alkaloid compound found in the bark of certain cinchona trees, used in medicine to treat malaria
25. The hypothesis is not yet _____ proven.
- adv.* in a way that relates to science or is connected with science
26. I had to call a _____ to fix the leaky faucet in my bathroom.
- n.* a person who installs and repairs the pipes and fixtures of a water supply, heating system, or drainage system
27. The _____ system kept the lawn green and healthy.
- n.* a device that sprays water over a large area used especially for watering crops or gardens or for firefighting
28. The _____ carbon-14 is commonly used in radiocarbon dating of fossils.
- n.* a variation of an element that has the same number of protons in its nucleus but a different number of neutrons, resulting in a different atomic mass and often different physical or chemical properties

ANSWERS: 23. cyst, 24. quinine, 25. scientifically, 26. plumber, 27. sprinkler, 28. isotope