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Vocabulary Builder Reference from...

Susan Solomon: The promise of research with stem

cells | TED Talk

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

se_of_research_with_stem_cells



Advanced Words Only

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Session 1: Word List

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.

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.

morph

- v. to change or cause to change something or someone smoothly and gradually from one thing to another
- synonym: alter, modify, transform
- (1) **morph** into a different shape, (2) **morph** into something entirely different

This company **morphed** into an enterprise company.

Alzheimer

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.
- an acute infectious disease caused by a virus that attacks nerve cells in the spinal cord and brain, leading to paralysis, muscle weakness, and potentially lifelong disability

synonym: poliomyelitis, infantile paralysis

(1) polio epidemic, (2) polio eradication The **polio** vaccine development is regarded as one of the greatest medical achievements of the 20th century.

siege

the surrounding of a place and isolating it by an army to defeat those defending it

synonym: blockade, encirclement, barricade

(1) hostage siege, (2) lay siege to his house People began storing up food and supplies for the **siege**.

ponder

- to think deeply or carefully about something synonym: think about, consider, reflect on
- (1) ponder divine matters, (2) ponder life's meaning She sat quietly, **pondering** the difficult decision.

reprogram

- to modify or recreate a program *synonym*: recreate, modify, revamp
- (1) reprogram a device, (2) reprogram a database He **reprogrammed** the computer's operating system to remove the safeguard.

biopsy

the process of removing and examining tissue from the body of the sick person to determine the existence or cause of a disease

polio

synonym: examination, autopsy

(1) **biopsy** of bone marrow, (2) liquid **biopsy**

The doctor performed an excisional breast biopsy.

neuron

 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.

recapitulate

- v. to summarize or repeat the main points of something synonym: summarize, repeat, restate
- (1) **recapitulate** briefly, (2) **recapitulate** a speech
 He **recapitulated** the main points of the meeting for those who had not been able to attend.

unfold

ν. to open up or spread out something that is folded or rolled up; to reveal or disclose something that was previously hidden or unknown

synonym: open, spread out, expose

(1) unfold the story, (2) unfold the stroller

The mystery **unfolded** as the detectives gathered more clues.

toxin

 a poisonous substance produced by a living organism, such as a plant, animal, or microorganism; a chemical compound that can cause harm or illness to a living organism

synonym: poison, venom, contaminant

(1) toxin exposure, (2) toxin production

Mold exposure can release dangerous toxins into the air.

hypothesize

v. to form or present a theory or explanation without sufficient evidence; to speculate

synonym: speculate, theorize, conjecture

(1) **hypothesize** as to outcomes, (2) **hypothesize** what

could have happened

Scientists **hypothesize** that the new fish species evolved to survive in deep-sea environments.

industrious

adj. hardworking, diligent, and persistent in effortsynonym: diligent, hardworking, assiduous

(1) **industrious** worker, (2) **industrious** student He was known to be very **industrious** and would often work late into the night.

lifesaver

a device or person that saves someone's life, often in an emergency or dangerous situation

synonym: rescuer, savior, protector

(1) **lifesaver** ring, (2) emergency **lifesaver**

The GPS device was a **lifesaver** when we got lost in the middle of nowhere.

petri

- n. (petri dish) a small, clear, and round dish with a lid used in laboratories, especially for growing bacteria
- petri dish test, (2) bacteria on petri dishes
 Glass petri dishes are used to culture microorganisms.

subgroup

- n. a smaller group within a larger groupsynonym: subset, division, segment
- (1) **subgroup** of the population, (2) patient **subgroup** The researchers divided the study participants into two **subgroups**.

medicinal

adj. of or relating to the treatment or cure of diseasesynonym: curative, therapeutic, healing

(1) **medicinal** chemistry, (2) traditional **medicinal**The **medicinal** properties of this herb have been known to help with various ailments.

aspirin

- a drug used to reduce pain, fever, and inflammation
- (1) prescribe **aspirin**, (2) **aspirin** sensitivity

She took a tablet of **aspirin** to soothe the fever.

hurdle

- n. a barrier or obstacle that must be overcomesynonym: obstacle, barrier, challenge
- (1) overcome hurdles, (2) hurdle race

The company faced several **hurdles** in the development of its new product.

app

 n. (abbreviation for application) software designed to run on smartphones and other mobile devices or inside a web browser on a PC

synonym: application, software

(1) killer app, (2) cannot log in to the app

The discovery of a critical bug caused the company to delay the **app's** release.

smartphone

- a mobile phone that functions as a computer and connects to the Internet
- (1) **smartphone** app developer, (2) **smartphone** addict Internet traffic volumes have increased significantly with the advent of **smartphones**.

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.

incurable

adj. not able to be cured, healed, or remedied; beyond recovery or redemption

synonym: unrecoverable, irreparable, hopeless

(1) incurable patient, (2) incurable romantic

The patient was diagnosed with an **incurable** disease and given only a few months to live.

Session 2: Spelling

1.	hypze as to outcomes	ν.	to form or present a theory or explanation without sufficient evidence; to speculate
2.	por life's meaning	<i>v</i> .	to think deeply or carefully about something
3.	roc guide operation	adj.	of or relating to mechanical robots; (robotics) the interdisciplinary branch of computer science and engineering with the practical use of robots
4.	mo_h into something entirely different	ν.	to change or cause to change something or someone smoothly and gradually from one thing to another
5.	Aler'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
6.	moh into a different shape	<i>v</i> .	to change or cause to change something or someone smoothly and gradually from one thing to another
7.	smane app developer	n.	a mobile phone that functions as a computer and connects to the Internet
8.	ton production	n.	a poisonous substance produced by a living organism, such as a plant, animal or microorganism; a chemical compound that can cause harm or illness to a living organism

ANSWERS: 1. hypothesize, 2. ponder, 3. robotic, 4. morph, 5. Alzheimer, 6. morph, 7. smartphone, 8. toxin

in the body, often used in the contestem cell research and applications 11. liquid biy 12. emergency lier 13. recate briefly 14. prescribe asn 15. plunt gene expression 16. roc arm 17. bacteria on pei dishes 18. liquid biy 19. the process of removing and examitissue from the body of the sick perto determine the existence or cause disease 19. the process of removing and examitissue from the body of the sick perto determine the existence or cause disease 19. a device or person that saves someone's life, often in an emerger or dangerous situation 10. summarize or repeat the main performed in the ma	9.	pei dish test	n.	(petri dish) a small, clear, and round dish with a lid used in laboratories, especially for growing bacteria
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especially for growing bacteria	17.	bacteria on pei dishes	n.	(petri dish) a small, clear, and round dish with a lid used in laboratories, especially for growing bacteria

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ANSWERS: 9. petri, 10. pluripotent, 11. biopsy, 12. lifesaver, 13. recapitulate, 14. aspirin, 15. pluripotent, 16. robotic, 17. petri

18.	killer a_p	n.	(abbreviation for application) software designed to run on smartphones and other mobile devices or inside a web browser on a PC
19.	por divine matters	v.	to think deeply or carefully about something
20.	indus worker	adj.	hardworking, diligent, and persistent in effort
21.	biy of bone marrow	n.	the process of removing and examining tissue from the body of the sick person to determine the existence or cause of a disease
22.	emic development	adj.	of or relating to an embryo (= an animal organism in the early stages of growth); in an early stage of development
23.	traditional meal	adj.	of or relating to the treatment or cure of disease
24.	asn sensitivity	n.	a drug used to reduce pain, fever, and inflammation
25.	meal chemistry	adj.	of or relating to the treatment or cure of disease
26.	inle romantic	adj.	not able to be cured, healed, or remedied; beyond recovery or redemption
27.	Aler'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

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ANSWERS: 18. app, 19. ponder, 20. industrious, 21. biopsy, 22. embryonic, 23. medicinal, 24. aspirin, 25. medicinal, 26. incurable, 27. Alzheimer

28.	ream a device	<i>v</i> .	to modify or recreate a program
29.	lier ring	n.	a device or person that saves someone's life, often in an emergency or dangerous situation
30.	ton exposure	n.	a poisonous substance produced by a living organism, such as a plant, animal, or microorganism; a chemical compound that can cause harm or illness to a living organism
31.	indus student	adj.	hardworking, diligent, and persistent in effort
32.	excite the nens	n.	a cell that is specialized to carry information within the brain and between the brain and other parts of the body
33.	hostage sie	n.	the surrounding of a place and isolating it by an army to defeat those defending it
34.	patient suup	n.	a smaller group within a larger group
35.	ream a database	v.	to modify or recreate a program
36.	nen cell body	n.	a cell that is specialized to carry information within the brain and between the brain and other parts of the body
37.	und the stroller	ν.	to open up or spread out something that is folded or rolled up; to reveal or disclose something that was previously hidden or unknown

ANSWERS: 28. reprogram, 29. lifesaver, 30. toxin, 31. industrious, 32. neuron, 33. siege, 34. subgroup, 35. reprogram, 36. neuron, 37. unfold

38.	poo eradication	n.	an acute infectious disease caused by a virus that attacks nerve cells in the spinal cord and brain, leading to paralysis, muscle weakness, and potentially lifelong disability
39.	suup of the population	n.	a smaller group within a larger group
40.	smane addict	n.	a mobile phone that functions as a computer and connects to the Internet
41.	hue race	n.	a barrier or obstacle that must be overcome
42.	und the story	<i>v</i> .	to open up or spread out something that is folded or rolled up; to reveal or disclose something that was previously hidden or unknown
43.	lay sie to his house	n.	the surrounding of a place and isolating it by an army to defeat those defending it
44.	recate a speech	ν.	to summarize or repeat the main points of something
45.	hypze what could have happened	v.	to form or present a theory or explanation without sufficient evidence; to speculate
46.	cannot log in to the a_p	n.	(abbreviation for application) software designed to run on smartphones and other mobile devices or inside a web browser on a PC
47.	emic stem cells	adj.	of or relating to an embryo (= an animal organism in the early stages of growth); in an early stage of development

ANSWERS: 38. polio, 39. subgroup, 40. smartphone, 41. hurdle, 42. unfold, 43. siege, 44. recapitulate, 45. hypothesize, 46. app, 47. embryonic

- 48. po__o epidemic
- 49. in____le patient
- 50. overcome hu___es

- n. an acute infectious disease caused by a virus that attacks nerve cells in the spinal cord and brain, leading to paralysis, muscle weakness, and potentially lifelong disability
- adj. not able to be cured, healed, or remedied; beyond recovery or redemption
- n. a barrier or obstacle that must be overcome

ANSWERS: 48. polio, 49. incurable, 50. hurdle

Session 3: Fill in the Blanks

1.	The company faced several in the development of its new product.
n.	a barrier or obstacle that must be overcome
2.	She took a tablet of to soothe the fever.
n.	a drug used to reduce pain, fever, and inflammation
3.	He was known to be very and would often work late into the night.
ad	i. hardworking, diligent, and persistent in effort
4.	The properties of this herb have been known to help with various ailments.
adj	i. of or relating to the treatment or cure of disease
5.	The doctor performed an excisional breast
n.	the process of removing and examining tissue from the body of the sick person to determine the existence or cause of a disease
6.	Scientists that the new fish species evolved to survive in deep-sea environments.
<i>v</i> .	to form or present a theory or explanation without sufficient evidence; to speculate
7.	The mystery as the detectives gathered more clues.
<i>v</i> .	to open up or spread out something that is folded or rolled up; to reveal or disclose something that was previously hidden or unknown
8.	Mold exposure can release dangerous into the air.
n.	a poisonous substance produced by a living organism, such as a plant, animal, or microorganism; a chemical compound that can cause harm or illness to a living organism
	SWERS: 1. hurdles, 2. aspirin, 3. industrious, 4. medicinal, 5. biopsy, 6. pothesize, 7. unfolded, 8. toxins

Pluripotent, 15. reprogrammed, 16. pondering

17.	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
18.	Glass dishes are used to culture microorganisms.
n.	(petri dish) a small, clear, and round dish with a lid used in laboratories, especially for growing bacteria
19.	People began storing up food and supplies for the
n.	the surrounding of a place and isolating it by an army to defeat those defending it
20.	The vaccine development is regarded as one of the greatest medical achievements of the 20th century.
n.	an acute infectious disease caused by a virus that attacks nerve cells in the spinal cord and brain, leading to paralysis, muscle weakness, and potentially lifelong disability
21.	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
22.	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
23.	Internet traffic volumes have increased significantly with the advent of
n.	a mobile phone that functions as a computer and connects to the Internet
	SWERS: 17. neuron, 18. petri, 19. siege, 20. polio, 21. embryonic, 22. robotic, 23 artphones

24.	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
25. n.	The researchers divided the study participants into two a smaller group within a larger group

Vocab-Builder Ref from "Susan Solomon: The promise of research with stem cells | TED Talk" (25 words)

ANSWERS: 24. Alzheimer's, 25. subgroups