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# Vocabulary Builder Reference from...

Anthony Atala: Printing a human kidney | TED Talk https://www.ted.com/talks/anthony\_atala\_printing\_a\_human\_kidney



## **Advanced Words Only**

#### **IMPORTANT**

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# **Session 1: Word List**

#### 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.

## regenerative

adj. tending to regrow or restore lost or injured tissue synonym: rejuvenating, restorative, healing

(1) **regenerative** medicine, (2) **regenerative** therapy The **regenerative** properties of stem cells make them a promising area of research.

#### scaffold

 a temporary platform or structure used to support workers and materials during construction or maintenance work

synonym: platform, staging, framework

(1) **scaffold** construction, (2) go to the **scaffold**The construction workers set up the **scaffold** to reach the top of the building.

## biomaterial

- a substance, usually synthetic, that is used for medical or veterinary purposes and is designed to mimic or replace biological tissues
- (1) biomaterial development, (2) biomaterials industry

The new **biomaterials** used in implants are more durable and less likely to cause an immune response.

#### blouse

 a loose-fitting upper garment for women, typically having a collar, buttons, and sleeves

*synonym*: shirt, top, tunic

a lacy blouse,
 blouse with sleeves
 she paired her denim jeans with a delicate floral blouse.

## regenerate

v. to improve or renew an area, institution, system, etc., especially by making it more active or successful

synonym: renew, revive, improve

(1) **regenerate** bone tissue, (2) a **regenerate** sinner The new CEO's primary mission is to **regenerate** the company on the verge of bankruptcy.

## devise

v. to come up with an idea, plan, theory, etc., using your intelligence or imagination

synonym: create, concoct, invent

devise a plan, (2) devise a literary plot
 They had to devise a system that did not depend on fossil

suture

n. a stitch or series of stitches used to hold together the edges of a wound or incision so that it can heal; a line of junction between two bones, particularly in the skull of an animal or human

synonym: stitch, seam

fuels.

(1) surgical suture, (2) suture thread

The surgeon used a special **suture** to close the wound.

## graft

n. a transplanted portion of tissue or skin, often taken from one part of the body and used to repair or replace damaged or missing tissue in another part; a corrupt or illegal means of acquiring wealth or power through illicit or unethical methods

synonym: transplant, implantation, bribery

(1) graft surgery, (2) anti- graft law

The patient's skin **graft** procedure was successful, and he was released from the hospital.

## pancreas

n. a glandular organ in the digestive system that produces several important hormones, including insulin and glucagon, as well as digestive enzymes that help break down food in the small intestine

synonym: gland, organ, islet

(1) **pancreas** inflammation, (2) **pancreas** function The endocrine function of the **pancreas** involves the

secretion of hormones such as insulin.

## supple

adj. flexible and easy to bend or move; gracefully agile;
 adaptable or responsive to change or new ideas

synonym: flexible, pliable, bendable

(1) **supple** muscles, (2) **supple** leather

The ballerina's **supple** movements left the audience mesmerized.

#### weave

v. to make cloth, a carpet, a basket, etc., by repeatedly crossing a single thread through two sets of long threads at a right angle to them

synonym: braid, unite, contrive

(1) weave on a loom, (2) weave a story

The girl weaves a garland for her friend.

#### tease

 to make fun of someone or make jokes about them, either in a playful way or to upset them; to separate the fibers of something; to ruffle a person's or animal's hair by combing

synonym: bully, annoy, provoke

(1) tease the children, (2) tease wool

This ad is intended to **tease** a competing product.

#### leaflet

 a small, thin piece of paper or other material, often used for advertising or informational purposes; a small branch

## or part of a leaf

synonym: pamphlet, brochure, flier

(1) information leaflet, (2) political leaflet

The environmental group handed out **leaflets** to raise awareness of the dangers of deforestation.

## centigrade

- a system of temperature measurement in which the freezing point of water is 0 degrees and the boiling point of water is 100 degrees; also known as the Celsius scale
- centigrade scale, (2) centigrade thermometer
   The temperature reached a peak of 35 degrees centigrade.

## perfuse

v. to saturate or supply with a fluid or substance, especially to supply oxygenated blood to tissue or organs, often through a network of blood vessels

synonym: imbue, saturate, infuse

- (1) **perfuse** blood, (2) rapidly **perfuse** the organs

  The doctor recommended using a nitroglycerin spray to **perfuse** the medication into the patient's system quickly.
- v. to enter or penetrate a group, organization, or place covertly or secretly, usually with a specific purpose or goal in mind; to spread or diffuse through something gradually or subtly

synonym: penetrate, sneak in, invade

(1) **infiltrate** the bloodstream, (2) **infiltrate** a community The spy was able to **infiltrate** the enemy's headquarters undetected.

## parenchyma

n. a type of tissue found in plants and animals, consisting of unspecialized cells that are the foundation of the organ or structure in which they are found, performing various functions such as storage, photosynthesis, and support

synonym: ground tissue, fundamental tissue

(1) parenchyma tissue, (2) hepatic parenchyma

## infiltrate

The **parenchyma** cells in the plant tissue are responsible for photosynthesis.

#### flatbed

 a type of truck or trailer with an open, flat platform for carrying cargo or equipment; a type of scanner or printer that uses a flat, stationary surface to capture or print images

synonym: platform, truck bed, deck

(1) flatbed printing, (2) flatbed scanner

The construction workers used a **flatbed** truck to transport the heavy materials.

## morphometric

adj. relating to the measurement and analysis of the physical shape and structure of organisms, objects, or systemssynonym: geometric, dimensional, quantitative

(1) **morphometric** parameters, (2) **morphometric** measurements

The **morphometric** analysis revealed significant differences in body size among the different species of birds.

#### volumetric

- adj. relating to or measured by volume, which refers to the amount of space occupied by an object or substancesynonym: dimensional, spatial, cubic
- (1) **volumetric** flow rate, (2) **volumetric** analysis

  The 3D printer uses **volumetric** calculations to determine the material needed for each print job.

## onstage

adv. onto or on a stage in a theater; in front of an audience

(1) appeared **onstage**, (2) walk **onstage** 

He performed his magic trick **onstage**, leaving the audience in awe.

#### recess

 a period of time when the members of a parliament, committee, etc., are adjourned; a short break in a trial in court

synonym: break, interval, pause

(1) a court **recess**, (2) during noon **recess** 

The company decided to take a **recess** and reconvene the meeting later that day.

## dialysis

- a medical treatment that removes waste and excess fluids from the blood of a patient with kidney failure
- (1) **dialysis** nurse, (2) **dialysis** machine Regular **dialysis** treatments are necessary for those with kidney failure.

### bifida

 a congenital condition where the spinal column does not fully close during fetal development, resulting in a defect in the spinal cord or nerves

synonym: myelomeningocele, occult spinal dysraphism

(1) meningocele **bifida**, (2) occulta **bifida** 

The pediatrician recommended specialized care for the baby diagnosed with spina **bifida**.

## profess

v. to declare openly, often publicly or formally, that one has a particular skill, belief, or feeling; to admit or affirm

synonym: declare, claim, confess

(1) profess innocence, (2) profess law

He **professes** his love for her every day, showering her with gifts and affection.

#### stubborn

adj. refusing to change one's mind or behavior despite persuasion or evidence to the contrary; unyielding; difficult to move or change

synonym: persistent, obstinate, determined

(1) stubborn attitude, (2) stubborn stains

He was so **stubborn** about his beliefs that he refused to listen to any other points of view.

# **Session 2: Spelling**

1. prs i	innocence
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- 2. reg te bone tissue
- 3. di is nurse
- 4. we e on a loom
- 5. during noon re\_\_\_s
- 6. pa\_\_\_as inflammation

7. meningocele bi\_\_\_a

- v. to declare openly, often publicly or formally, that one has a particular skill, belief, or feeling; to admit or affirm
- v. to improve or renew an area, institution, system, etc., especially by making it more active or successful
- a medical treatment that removes waste and excess fluids from the blood of a patient with kidney failure
- to make cloth, a carpet, a basket, etc., by repeatedly crossing a single thread through two sets of long threads at a right angle to them
- a period of time when the members of a parliament, committee, etc., are adjourned; a short break in a trial in court
- n. a glandular organ in the digestive system that produces several important hormones, including insulin and glucagon, as well as digestive enzymes that help break down food in the small intestine
- a congenital condition where the spinal column does not fully close during fetal development, resulting in a defect in the spinal cord or nerves

ANSWERS: 1. profess, 2. regenerate, 3. dialysis, 4. weave, 5. recess, 6. pancreas, 7. bifida

8.	strn stains	adj.	refusing to change one's mind or behavior despite persuasion or evidence to the contrary; unyielding; difficult to move or change
9.	a court res	n.	a period of time when the members of a parliament, committee, etc., are adjourned; a short break in a trial in court
10.	regive medicine	adj.	tending to regrow or restore lost or injured tissue
11.	strn attitude	adj.	refusing to change one's mind or behavior despite persuasion or evidence to the contrary; unyielding; difficult to move or change
12.	paas function	n.	a glandular organ in the digestive system that produces several important hormones, including insulin and glucagon, as well as digestive enzymes that help break down food in the small intestine
13.	prs law	v.	to declare openly, often publicly or formally, that one has a particular skill, belief, or feeling; to admit or affirm
14.	occulta bia	n.	a congenital condition where the spinal column does not fully close during fetal development, resulting in a defect in the spinal cord or nerves
15.	volic flow rate	adj.	relating to or measured by volume, which refers to the amount of space occupied by an object or substance

ANSWERS: 8. stubborn, 9. recess, 10. regenerative, 11. stubborn, 12. pancreas, 13. profess, 14. bifida, 15. volumetric

16.	rapidly pee the organs	v.	to saturate or supply with a fluid or substance, especially to supply oxygenated blood to tissue or organs, often through a network of blood vessels
17.	sue muscles	adj.	flexible and easy to bend or move; gracefully agile; adaptable or responsive to change or new ideas
18.	political let	n.	a small, thin piece of paper or other material, often used for advertising or informational purposes; a small branch or part of a leaf
19.	dee a literary plot	v.	to come up with an idea, plan, theory, etc., using your intelligence or imagination
20.	parma tissue	n.	a type of tissue found in plants and animals, consisting of unspecialized cells that are the foundation of the organ or structure in which they are found, performing various functions such as storage, photosynthesis, and support
21.	fld printing	n.	a type of truck or trailer with an open, flat platform for carrying cargo or equipment; a type of scanner or printer that uses a flat, stationary surface to capture or print images
22.	tee the children	v.	to make fun of someone or make jokes about them, either in a playful way or to upset them; to separate the fibers of something; to ruffle a person's or animal's hair by combing

ANSWERS: 16. perfuse, 17. supple, 18. leaflet, 19. devise, 20. parenchyma, 21. flatbed, 22. tease

23. bioal developmer	nt n.	a substance, usually synthetic, that is used for medical or veterinary purposes and is designed to mimic or replace biological tissues
24. a regte sinner	ν.	to improve or renew an area, institution, system, etc., especially by making it more active or successful
25. a lacy ble	n.	a loose-fitting upper garment for women, typically having a collar, buttons, and sleeves
26. infte the bloodstre	am v.	to enter or penetrate a group, organization, or place covertly or secretly, usually with a specific purpose or goal in mind; to spread or diffuse through something gradually or subtly
27. information let	n.	a small, thin piece of paper or other material, often used for advertising or informational purposes; a small branch or part of a leaf
28. dee a plan	v.	to come up with an idea, plan, theory, etc., using your intelligence or imagination
29. infte a community	v.	to enter or penetrate a group, organization, or place covertly or secretly, usually with a specific purpose or goal in mind; to spread or diffuse through something gradually or subtly
30. tee wool	v.	to make fun of someone or make jokes about them, either in a playful way or to upset them; to separate the fibers of something; to ruffle a person's or animal's hair by combing

ANSWERS: 23. biomaterial, 24. regenerate, 25. blouse, 26. infiltrate, 27. leaflet, 28. devise, 29. infiltrate, 30. tease

31.	go to the scld	n.	a temporary platform or structure used to support workers and materials during construction or maintenance work
32.	morric parameters	adj.	relating to the measurement and analysis of the physical shape and structure of organisms, objects, or systems
33.	walk one	adv.	onto or on a stage in a theater; in front of an audience
34.	sue thread	n.	a stitch or series of stitches used to hold together the edges of a wound or incision so that it can heal; a line of junction between two bones, particularly in the skull of an animal or human
35.	morric measurements	adj.	relating to the measurement and analysis of the physical shape and structure of organisms, objects, or systems
36.	appeared one	adv.	onto or on a stage in a theater; in front of an audience
37.	diis machine	n.	a medical treatment that removes waste and excess fluids from the blood of a patient with kidney failure
38.	hepatic parma	n.	a type of tissue found in plants and animals, consisting of unspecialized cells that are the foundation of the organ or structure in which they are found, performing various functions such as storage, photosynthesis, and support

ANSWERS: 31. scaffold, 32. morphometric, 33. onstage, 34. suture, 35. morphometric, 36. onstage, 37. dialysis, 38. parenchyma

39.	reg	_ive therapy	adj.	tending to regrow or restore lost or injured tissue
40.	bio	_als industry	n.	a substance, usually synthetic, that is used for medical or veterinary purposes and is designed to mimic or replace biological tissues
41.	wee a s	story	<i>v</i> .	to make cloth, a carpet, a basket, etc., by repeatedly crossing a single thread through two sets of long threads at a right angle to them
42.	traditional	meal	adj.	of or relating to the treatment or cure of disease
43.	voli	c analysis	adj.	relating to or measured by volume, which refers to the amount of space occupied by an object or substance
44.	surgical su	ue	n.	a stitch or series of stitches used to hold together the edges of a wound or incision so that it can heal; a line of junction between two bones, particularly in the skull of an animal or human
45.	cen	de scale	n.	a system of temperature measurement in which the freezing point of water is 0 degrees and the boiling point of water is 100 degrees; also known as the Celsius scale
46.	sue le	ather	adj.	flexible and easy to bend or move; gracefully agile; adaptable or responsive to change or new ideas
47.	pee l	olood	v.	to saturate or supply with a fluid or substance, especially to supply oxygenated blood to tissue or organs, often through a network of blood vessels

ANSWERS: 39. regenerative, 40. biomaterial, 41. weave, 42. medicinal, 43. volumetric, 44. suture, 45. centigrade, 46. supple, 47. perfuse

48. meal chemistry	adj.	of or relating to the treatment or cure of disease
49. scld construction	n.	a temporary platform or structure used to support workers and materials during construction or maintenance work
50. gr_t surgery	n.	a transplanted portion of tissue or skin, often taken from one part of the body and used to repair or replace damaged or missing tissue in another part; a corrupt or illegal means of acquiring wealth or power through illicit or unethical methods
51. anti-grt law	n.	a transplanted portion of tissue or skin, often taken from one part of the body and used to repair or replace damaged or missing tissue in another part; a corrupt or illegal means of acquiring wealth or power through illicit or unethical methods
52. cende thermometer	n.	a system of temperature measurement in which the freezing point of water is 0 degrees and the boiling point of water is 100 degrees; also known as the Celsius scale
53. ble with sleeves	n.	a loose-fitting upper garment for women, typically having a collar, buttons, and sleeves
54. fld scanner	n.	a type of truck or trailer with an open, flat platform for carrying cargo or equipment; a type of scanner or printer that uses a flat, stationary surface to capture or print images

ANSWERS: 48. medicinal, 49. scaffold, 50. graft, 51. graft, 52. centigrade, 53. blouse, 54. flatbed

_	Vocab-Builder Re	ef from "Anthony	Atala: Printing a h	uman kidney   TE	D Talk" (27 words	3)
<b>ANSWERS</b>	S:					

# **Session 3: Fill in the Blanks**

1.	The ballerina's movements left the audience mesmerized.
adj	flexible and easy to bend or move; gracefully agile; adaptable or responsive to change or new ideas
2.	The pediatrician recommended specialized care for the baby diagnosed with spina
n.	a congenital condition where the spinal column does not fully close during fetal development, resulting in a defect in the spinal cord or nerves
3.	The properties of stem cells make them a promising area of research.
adj	i. tending to regrow or restore lost or injured tissue
4.	The girl a garland for her friend.
<i>v</i> .	to make cloth, a carpet, a basket, etc., by repeatedly crossing a single thread through two sets of long threads at a right angle to them
5.	The environmental group handed out to raise awareness of the dangers of deforestation.
n.	a small, thin piece of paper or other material, often used for advertising or informational purposes; a small branch or part of a leaf
6.	He his love for her every day, showering her with gifts and affection.
<i>v</i> .	to declare openly, often publicly or formally, that one has a particular skill, belief, or feeling; to admit or affirm
7.	The new used in implants are more durable and less likely to cause an immune response.
n.	a substance, usually synthetic, that is used for medical or veterinary purposes and is designed to mimic or replace biological tissues
	SWERS: 1. supple, 2. bifida, 3. regenerative, 4. weaves, 5. leaflets, 6. professes, biomaterials

8.	She paired her denim jeans with a delicate floral
n.	a loose-fitting upper garment for women, typically having a collar, buttons, and sleeves
9.	The surgeon used a special to close the wound.
n.	a stitch or series of stitches used to hold together the edges of a wound or incision so that it can heal; a line of junction between two bones, particularly in the skull of an animal or human
10.	He performed his magic trick leaving the audience in awe.
adı	onto or on a stage in a theater; in front of an audience
11.	The construction workers used a truck to transport the heavy materials.
n.	a type of truck or trailer with an open, flat platform for carrying cargo or equipment; a type of scanner or printer that uses a flat, stationary surface to capture or print images
12.	This ad is intended to a competing product.
v.	to make fun of someone or make jokes about them, either in a playful way or to upset them; to separate the fibers of something; to ruffle a person's or animal's hair by combing
13.	Regular treatments are necessary for those with kidney failure.
n.	a medical treatment that removes waste and excess fluids from the blood of a patient with kidney failure
14.	The doctor recommended using a nitroglycerin spray to the medication into the patient's system quickly.
v.	to saturate or supply with a fluid or substance, especially to supply oxygenated blood to tissue or organs, often through a network of blood vessels
	SWERS: 8. blouse, 9. suture, 10. onstage, 11. flatbed, 12. tease, 13. dialysis, 14. fuse

15.	The temperature reached a peak of 35 degrees
n.	a system of temperature measurement in which the freezing point of water is degrees and the boiling point of water is 100 degrees; also known as the Celsius scale
16.	The cells in the plant tissue are responsible for photosynthesis.
n.	a type of tissue found in plants and animals, consisting of unspecialized cells that are the foundation of the organ or structure in which they are found, performing various functions such as storage, photosynthesis, and support
17.	The 3D printer uses calculations to determine the material needed for each print job.
adj	ij. relating to or measured by volume, which refers to the amount of space occupied by an object or substance
18.	The properties of this herb have been known to help with various ailments.
adj	ij. of or relating to the treatment or cure of disease
19.	They had to a system that did not depend on fossil fuels.
<i>v</i> .	to come up with an idea, plan, theory, etc., using your intelligence or imagination
20.	The patient's skin procedure was successful, and he was released from the hospital.
n.	a transplanted portion of tissue or skin, often taken from one part of the body and used to repair or replace damaged or missing tissue in another part; a corrupt or illegal means of acquiring wealth or power through illicit or unethica methods
	ISWERS: 15. centigrade, 16. parenchyma, 17. volumetric, 18. medicinal, 19. vise, 20. graft

ANSWERS: 21. stubborn, 22. infiltrate, 23. regenerate, 24. morphometric, 25. recess, 26. pancreas

27.	The construction workers set up the	to reach the top of the building
	THE CONGRESSION WONKERS COLUMN THE	to rodon the top of the banding

*n.* a temporary platform or structure used to support workers and materials during construction or maintenance work

ANSWERS: 27. scaffold