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Vocabulary Builder Reference from...

AnnMarie Thomas: Hands-on science with squishy

circuits | TED Talk

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

on_science_with_squishy_circuits



All Words

IMPORTANT

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Session 1: Word List

disbeliever

 a person who does not believe in something, such as a religion or idea

synonym: non-believer, skeptic, doubter

(1) persuade a **disbeliever**, (2) stubborn **disbeliever** Despite the evidence, she remained a **disbeliever** in the theory of evolution.

hands-on

adj. actively involved, practical; having hands involved in the doing or making of something

synonym: practical, involved, hands-in

(1) **hands-on** activity, (2) take a **hands-on** approach The **hands-on** workshop allowed attendees to work with tools and materials, developing their skills in a hands-on environment.

electronics

 the branch of physics and technology that deals with the behavior and control of electrons and the use of electronic devices and systems

synonym: technology, gadgets, circuitry

(1) **electronics** industry, (2) **electronics** store The company specializes in manufacturing and selling cutting-edge **electronics**.

similarly

adv. in almost the same way synonym: also, likewise, ditto

(1) **similarly** situated, (2) have **similarly** great abilities We argue that wages for temporary workers should **similarly** rise.

prototype

- a first or preliminary example of something such as a device or vehicle from which other forms are developed
 synonym: mock-up, precursor, model
- (1) complete a **prototype** product, (2) early **prototype**The flying car is presently in the **prototype** stage.

frustrate

v. to hinder or prevent efforts, plans, or desires from doing, succeeding, or being fulfilled; to make someone feel upset or annoyed because they are unable to change or achieve something

synonym: hinder, thwart, dishearten

(1) **frustrate** the advancement, (2) **frustrate** other team members

The coach explained a strategy to **frustrate** the opponent's schemes to the players.

decide

- v. to make up someone's mind about something; to come to a conclusion or judgment after considering optionssynonym: choose, determine, settle
- (1) **decide** a question, (2) **decide** on a course of action She couldn't **decide** whether to order the pizza or the pasta for dinner.

tangible

 adj. real and concrete; able to be perceived, especially able to be touched; (of business assets) having physical substance and intrinsic monetary value

synonym: palpable, real, actual

(1) **tangible** assets, (2) produce **tangible** results A problem that has been pointed out for years finally becomes **tangible**.

recipe

n. a set of instructions for preparing a dish, including the ingredients and the method of cooking

synonym: instructions, formula, method

(1) recipe book, (2) recipe collection

The **recipe** for the cake is passed down from generation to generation in her family.

homemade

adj. made at home rather than in a factory or workshop synonym: self-made

(1) homemade article, (2) homemade breadI prefer homemade cookies over store-bought ones.

dough

a mixture of flour, liquid, and other ingredients, typically used to make bread, pastry, or pasta

synonym: flour, mix

(1) work **dough**, (2) **dough** for pastry

She mixed flour, yeast, sugar, and water to make **dough** for the bread.

ingredient

- n. one of the things used to make something, especially one of the foods used to make a particular dishsynonym: element, component
- (1) secret **ingredients**, (2) compound the **ingredients**Greed is the primary **ingredient** in the making of criminals.

sculpture

 n. the art of creating three-dimensional objects or forms, typically by carving, modeling, or casting in a variety of materials such as stone, wood, metal, or clay

synonym: statuary, carving, modeling

(1) create sculpture, (2) abstract sculpture

The ancient Greek **sculptures** are known for their realism and attention to detail.

saltiness

- n. the quality or state of being salty
- (1) the taste of **saltiness**, (2) enhance the **saltiness**. She tasted the dish and detected a slight **saltiness**.

conduct

- to organize and carry out a particular activity synonym: behave, lead, carry on
- (1) conduct a background check, (2) conduct research Police will **conduct** random breath testing for drunk driving.

electrify

to make a machine or system work by using electricity; to make someone extremely enthusiastic about or interested in something

synonym: wire, amaze, astonish

(1) **electrify** the audience, (2) **electrify** a manufacturing process

The product developed through years of research continues to **electrify** the market.

physics

- the science of matter and energy and their interactions
- (1) nuclear **physics**, (2) laws of **physics** He studied the **physics** of radiation.

resistance

the act of defending oneself from an aggressor or n. refusing to accept something

synonym: opposition, antagonism, defiance

(1) **resistance** movement, (2) **resistance** to insulin The bill to increase the consumption tax had passed despite much resistance from the public.

commerce

the activity of buying and selling things, especially on a n. large scale

synonym: trade, transaction, dealings

(1) interstate **commerce**, (2) the local chamber of commerce

This company has invested heavily in Internet **commerce**.

resistant

adj. not affected by something, especially changes or new ideas; of or relating to immunity to disease or infection

synonym: unsusceptible, immune, invulnerable

(1) penicillin- resistant bacteria, (2) resistant to persuasion

Insects in urban areas are becoming **resistant** to insecticides.

suddenly

adv. quickly and unexpectedly

synonym: abruptly, unexpectedly, unawares

suddenly attacked by an enemy, (2) die suddenly
 Who answers suddenly knows little.

circuit

 n. (in electrical engineering) an electrical device that provides a path for electrical current to flow; a journey or route around a particular place or area

synonym: route, course, rotation

circuit breaker, (2) federal circuit courts
 An intelligent battery has a voltage monitoring circuit.

creative

adj. relating to or involving the use of skill and original and unusual ideas to create something

synonym: imaginative, innovative, inventive

(1) **creative** writing, (2) barren of **creative** spirit

All the supervisor has to do is assign tasks that make his subordinates more **creative**.

demonstrate

 to display something or give an exhibition to an interested audience

synonym: show, illustrate, display

(1) **demonstrate** a difference, (2) **demonstrate** mastery How can you **demonstrate** that the earth is a sphere?

battery

a device that is placed inside a car, gadget, equipment,
 etc. and that provides electrical power to them

synonym: electric cell, array, batch

(1) a dry battery, (2) battery charging

The engine did not start because the **battery** was flat.

shack

 a small, often rundown dwelling or house, typically one that is poorly constructed or maintained

synonym: shanty, cabin, hut

(1) humble **shack**, (2) beach **shack**

The fisherman lived in a small **shack** by the lake.

electrical

adj. relating to electricity

(1) an **electrical** storm, (2) degree in **electrical** engineering Actuators convert **electrical** pulses into motion.

engineer

 a person whose job is designing, building, or maintaining something such as machines, structures, or software

synonym: architect, creator, builder

(1) a civil **engineer**, (2) **engineer** shortage

The **engineer** will repair my telephone tomorrow morning.

separate

- v. to force, take, or pull apart; mark as different synonym: disunite, isolate, ramify
- (1) **separate** video into chapter, (2) **separate** cream from milk

We need to **separate** the aspect of his personality from the part of his competence when making an investment decision.

stick

to put something, usually a sharp object, into something; to restrict yourself to doing or using one certain thing and not change; (noun) a thin piece of wood or other material

synonym: pierce, adhere, stay

(1) stick a key in a lock, (2) fire stick

You **stick** a bill in the change machine, and the coins pop out.

movement

 a group of people working together to achieve a shared goal, especially a political, social, or artistic one; the process of moving or being moved, physically or figuratively

synonym: motion, progression, action

a circular movement, (2) movement of troops
 The movement of the dancers on stage was graceful and

elegant.

spinning

n. the act of rotating rapidly around an axis; in the context of textiles, the process of twisting fibers together to form thread or yarn

synonym: whirling, rotating, spinning wheel

(1) **spinning** machine, (2) **spinning** wheel

She took a **spinning** class at the gym to improve her cardiovascular fitness.

grab

 to take hold of something or someone suddenly with a hand, especially in a violent way

synonym: clutch, snatch, grasp

(1) **grab** an audience, (2) **grab** an opportunity

Shall we **grab** a bite to eat?

motor

n. a device that converts electricity, fuel, etc. into movement and makes a machine, vehicle, etc. work

synonym: actuator, engine, machine

(1) a motor mechanic, (2) DC motor control

Energy-efficient **motors** are needed to maximize the cruising distance of electric vehicles.

slightly

adv. in a small degree or extent; a little

synonym: barely, narrowly, scarcely

(1) increase **slightly**, (2) **slightly** alkaline soils

He moved his body slightly to the left.

complicated

adj. involving a lot of different things or parts in a way that is difficult to understand or analyze

synonym: complex, convoluted, intricate

(1) a **complicated** process, (2) become increasingly **complicated**

He did **complicated** pen-and-ink drawings in just a few days.

sushi

 a Japanese dish consisting of vinegared rice, often combined with fish or vegetables and sometimes

wrapped in seaweed

synonym: raw fish, sashimi, nigiri

(1) sushi bar, (2) sushi roll

I love going out for **sushi** with my friends on Friday nights.

parallel

 adj. being everywhere equidistant and not intersecting; of or relating to the simultaneous performance of multiple operations

synonym: aligned, side-by-side, similar

(1) a parallel case, (2) parallel processing

He walked a road **parallel** to the railroad.

dim

adj. poorly lit; not bright
synonym: dull, faint, weak

(1) dim and distant past, (2) dim memory

The **dim** light made it difficult to read the book.

microprocessor

 a computer component containing all the functions of the central processing unit

synonym: IC, chip, microchip

(1) microprocessor chip, (2) dedicated microprocessorAs a result of improvements in microprocessor

performance, many consumer electronics products are now Internet-connected.

squishy

adj. soft and yielding to the touch; easily deformed

synonym: soft, spongy, mushy

(1) squishy texture, (2) a squishy story

The **squishy** foam ball is perfect for squeezing to relieve stress.

lab

 a workplace for the conduct of scientific research; a laboratory

synonym: workshop, laboratory, research chamber

(1) **lab** instrument, (2) medical **lab**

The Prime Minister will pay a courtesy visit to the Nobel

laureate's lab.

curriculum

 a series of subjects comprising a course of study in a school, college, etc.

synonym: program, syllabus, course of study

(1) a curriculum vitae, (2) an academic curriculumA committee was appointed to manage the reorganization of

the **curriculum**.

develop

v. to grow or expand; to improve or refine through a process of progress and refinement, often to achieve greater sophistication or complexity; to elaborate or add detail to something that is in the process of being created

synonym: evolve, progress, advance

(1) **develop** a strategy, (2) **develop** a skill

We must **develop** a new system to streamline our workflow and increase efficiency.

encourage

v. to give someone support, confidence, or hope; to persuade someone to do or continue to do something by making it easier for them and making them believe it is a good thing to do

synonym: facilitate, persuade, stimulate

(1) **encourage** a sense of affinity, (2) **encourage** antisocial behavior

They **encouraged** customers with a premium for loyal patronage.

Session 2: Spelling

1.	a dry bay	n.	a device that is placed inside a car, gadget, equipment, etc. and that provides electrical power to them
2.	dep a strategy	ν.	to grow or expand; to improve or refine through a process of progress and refinement, often to achieve greater sophistication or complexity; to elaborate or add detail to something that is in the process of being created
3.	have sily great abilities	adv.	in almost the same way
4.	ree collection	n.	a set of instructions for preparing a dish including the ingredients and the method of cooking
5.	complete a prpe product	n.	a first or preliminary example of something such as a device or vehicle from which other forms are developed
6.	elfy the audience	ν.	to make a machine or system work by using electricity; to make someone extremely enthusiastic about or interested in something
7.	dee on a course of action	ν.	to make up someone's mind about something; to come to a conclusion or judgment after considering options
8.	ener shortage	n.	a person whose job is designing, building, or maintaining something such as machines, structures, or software

ANSWERS: 1. battery, 2. develop, 3. similarly, 4. recipe, 5. prototype, 6. electrify, 7. decide, 8. engineer

9.	DC mo_r control	n.	a device that converts electricity, fuel, etc. into movement and makes a machine, vehicle, etc. work
10.	sui bar	n.	a Japanese dish consisting of vinegared rice, often combined with fish or vegetables and sometimes wrapped in seaweed
11.	secret ingnts	n.	one of the things used to make something, especially one of the foods used to make a particular dish
12.	sui roll	n.	a Japanese dish consisting of vinegared rice, often combined with fish or vegetables and sometimes wrapped in seaweed
13.	compound the ingnts	n.	one of the things used to make something, especially one of the foods used to make a particular dish
14.	penicillin-rent bacteria	adj.	not affected by something, especially changes or new ideas; of or relating to immunity to disease or infection
15.	d_m and distant past	adj.	poorly lit; not bright
16.	haon activity	adj.	actively involved, practical; having hands involved in the doing or making of something
17.	the taste of sass	n.	the quality or state of being salty
18.	bay charging	n.	a device that is placed inside a car, gadget, equipment, etc. and that provides electrical power to them

ANSWERS: 9. motor, 10. sushi, 11. ingredient, 12. sushi, 13. ingredient, 14. resistant, 15. dim, 16. hands-on, 17. saltiness, 18. battery

19. barren of cr ve spirit adj. relating to or involving the use of skill and original and unusual ideas to create something 20. g b an opportunity to take hold of something or someone ν. suddenly with a hand, especially in a violent way 21. pa____el processing adj. being everywhere equidistant and not intersecting; of or relating to the simultaneous performance of multiple operations a mixture of flour, liquid, and other 22. do h for pastry ingredients, typically used to make bread, pastry, or pasta to grow or expand; to improve or refine 23. de paskill through a process of progress and refinement, often to achieve greater sophistication or complexity; to elaborate or add detail to something that is in the process of being created a group of people working together to 24. mo nt of troops achieve a shared goal, especially a political, social, or artistic one; the process of moving or being moved, physically or figuratively the act of rotating rapidly around an 25. sp___ng machine axis; in the context of textiles, the process of twisting fibers together to form thread or yarn 26. sl ly alkaline soils adv. in a small degree or extent; a little

ANSWERS: 19. creative, 20. grab, 21. parallel, 22. dough, 23. develop, 24. movement, 25. spinning, 26. slightly

the activity of buying and selling things, 27. interstate co ce n. especially on a large scale to put something, usually a sharp 28. st kakey in a lock ν. object, into something; to restrict yourself to doing or using one certain thing and not change; (noun) a thin piece of wood or other material a series of subjects comprising a course 29. an academic cur____um n. of study in a school, college, etc. 30. en____ge antisocial behavior to give someone support, confidence, or hope; to persuade someone to do or continue to do something by making it easier for them and making them believe it is a good thing to do 31. se____te video into chapter to force, take, or pull apart; mark as different adj. poorly lit; not bright 32. d m memory 33. q b an audience to take hold of something or someone suddenly with a hand, especially in a violent way 34. an ele____al storm adj. relating to electricity 35. re___e book a set of instructions for preparing a dish, including the ingredients and the method of cooking 36. fire st__k to put something, usually a sharp object, into something; to restrict yourself to doing or using one certain thing and not change; (noun) a thin piece of wood or other material

ANSWERS: 27. commerce, 28. stick, 29. curriculum, 30. encourage, 31. separate, 32. dim, 33. grab, 34. electrical, 35. recipe, 36. stick

37.	medical I_b	n.	a workplace for the conduct of scientific research; a laboratory
38.	a curum vitae	n.	a series of subjects comprising a course of study in a school, college, etc.
39.	abstract scre	n.	the art of creating three-dimensional objects or forms, typically by carving, modeling, or casting in a variety of materials such as stone, wood, metal, or clay
40.	resce movement	n.	the act of defending oneself from an aggressor or refusing to accept something
41.	a sqy story	adj.	soft and yielding to the touch; easily deformed
42.	suly attacked by an enemy	adv.	quickly and unexpectedly
43.	dee a question	<i>v</i> .	to make up someone's mind about something; to come to a conclusion or judgment after considering options
44.	frte other team members	<i>v</i> .	to hinder or prevent efforts, plans, or desires from doing, succeeding, or being fulfilled; to make someone feel upset or annoyed because they are unable to change or achieve something
45.	cot a background check	<i>v</i> .	to organize and carry out a particular activity
46.	enge a sense of affinity	ν.	to give someone support, confidence, or hope; to persuade someone to do or continue to do something by making it easier for them and making them believe it is a good thing to do

ANSWERS: 37. lab, 38. curriculum, 39. sculpture, 40. resistance, 41. squishy, 42. suddenly, 43. decide, 44. frustrate, 45. conduct, 46. encourage

47.	elecs store	n.	the branch of physics and technology that deals with the behavior and control of electrons and the use of electronic devices and systems
48.	hode bread	adj.	made at home rather than in a factory or workshop
49.	produce tale results	adj.	real and concrete; able to be perceived, especially able to be touched; (of business assets) having physical substance and intrinsic monetary value
50.	federal cit courts	n.	(in electrical engineering) an electrical device that provides a path for electrical current to flow; a journey or route around a particular place or area
51.	spng wheel	n.	the act of rotating rapidly around an axis; in the context of textiles, the process of twisting fibers together to form thread or yarn
52.	a pael case	adj.	being everywhere equidistant and not intersecting; of or relating to the simultaneous performance of multiple operations
53.	a mor mechanic	n.	a device that converts electricity, fuel, etc. into movement and makes a machine, vehicle, etc. work
54.	sily situated	adv.	in almost the same way
55.	sete cream from milk	<i>v</i> .	to force, take, or pull apart; mark as different
56.	crve writing	adj.	relating to or involving the use of skill and original and unusual ideas to create something

ANSWERS: 47. electronics, 48. homemade, 49. tangible, 50. circuit, 51. spinning, 52. parallel, 53. motor, 54. similarly, 55. separate, 56. creative

57.	cot research	<i>v</i> .	to organize and carry out a particular activity
58.	micsor chip	n.	a computer component containing all the functions of the central processing unit
59.	humble shk	n.	a small, often rundown dwelling or house, typically one that is poorly constructed or maintained
60.	demte a difference	<i>v</i> .	to display something or give an exhibition to an interested audience
61.	become increasingly comed	adj.	involving a lot of different things or parts in a way that is difficult to understand or analyze
62.	early prpe	n.	a first or preliminary example of something such as a device or vehicle from which other forms are developed
63.	persuade a diser	n.	a person who does not believe in something, such as a religion or idea
64.	elfy a manufacturing process	<i>v</i> .	to make a machine or system work by using electricity; to make someone extremely enthusiastic about or interested in something
65.	create scre	n.	the art of creating three-dimensional objects or forms, typically by carving, modeling, or casting in a variety of materials such as stone, wood, metal, or clay
66.	tale assets	adj.	real and concrete; able to be perceived especially able to be touched; (of business assets) having physical substance and intrinsic monetary value

ANSWERS: 57. conduct, 58. microprocessor, 59. shack, 60. demonstrate, 61. complicated, 62. prototype, 63. disbeliever, 64. electrify, 65. sculpture, 66. tangible

67.	degree in eleal engineering	adj.	relating to electricity
68.	work doh	n.	a mixture of flour, liquid, and other ingredients, typically used to make bread, pastry, or pasta
69.	hode article	adj.	made at home rather than in a factory or workshop
70.	demte mastery	<i>v</i> .	to display something or give an exhibition to an interested audience
71.	stubborn diser	n.	a person who does not believe in something, such as a religion or idea
72.	increase slly	adv.	in a small degree or extent; a little
73.	cit breaker	n.	(in electrical engineering) an electrical device that provides a path for electrical current to flow; a journey or route around a particular place or area
74.	a circular mont	n.	a group of people working together to achieve a shared goal, especially a political, social, or artistic one; the process of moving or being moved, physically or figuratively
75.	rent to persuasion	adj.	not affected by something, especially changes or new ideas; of or relating to immunity to disease or infection
76.	nuclear phs	n.	the science of matter and energy and their interactions
77.	sqy texture	adj.	soft and yielding to the touch; easily deformed
78.	elecs industry	n.	the branch of physics and technology that deals with the behavior and control of electrons and the use of electronic devices and systems

ANSWERS: 67. electrical, 68. dough, 69. homemade, 70. demonstrate, 71. disbeliever, 72. slightly, 73. circuit, 74. movement, 75. resistant, 76. physics, 77. squishy, 78. electronics

, 0.	I_b instrument	n.	a workplace for the conduct of scientific research; a laboratory
80.	enhance the sass	n.	the quality or state of being salty
81.	the local chamber of coce	n.	the activity of buying and selling things, especially on a large scale
82.	a comed process	adj.	involving a lot of different things or parts in a way that is difficult to understand or analyze
83.	dedicated micsor	n.	a computer component containing all the functions of the central processing unit
84.	resce to insulin	n.	the act of defending oneself from an aggressor or refusing to accept something
85.	beach shk	n.	a small, often rundown dwelling or house, typically one that is poorly constructed or maintained
86.	laws of phs	n.	the science of matter and energy and their interactions
87.	take a haon approach	adj.	actively involved, practical; having hands involved in the doing or making of something
88.	frte the advancement	<i>v</i> .	to hinder or prevent efforts, plans, or desires from doing, succeeding, or being fulfilled; to make someone feel upset or annoyed because they are unable to change or achieve something
89.	a civil ener	n.	a person whose job is designing, building, or maintaining something such as machines, structures, or software

ANSWERS: 79. lab, 80. saltiness, 81. commerce, 82. complicated, 83. microprocessor, 84. resistance, 85. shack, 86. physics, 87. hands-on, 88. frustrate, 89. engineer

90. die su____ly

adv. quickly and unexpectedly

ANSWERS: 90. suddenly

Session 3: Fill in the Blanks

1.	The coach explained a strategy to the opponent's schemes to the players.
ν.	to hinder or prevent efforts, plans, or desires from doing, succeeding, or being fulfilled; to make someone feel upset or annoyed because they are unable to change or achieve something
2.	He studied the of radiation.
n.	the science of matter and energy and their interactions
3.	They customers with a premium for loyal patronage.
ν.	to give someone support, confidence, or hope; to persuade someone to do or continue to do something by making it easier for them and making them believe it is a good thing to do
4.	She couldn't whether to order the pizza or the pasta for dinner.
ν.	to make up someone's mind about something; to come to a conclusion or judgment after considering options
5.	The product developed through years of research continues to the market.
ν.	to make a machine or system work by using electricity; to make someone extremely enthusiastic about or interested in something
6.	A problem that has been pointed out for years finally becomes
adj	real and concrete; able to be perceived, especially able to be touched; (of business assets) having physical substance and intrinsic monetary value
7.	The will repair my telephone tomorrow morning.
n.	a person whose job is designing, building, or maintaining something such as machines, structures, or software
	SWERS: 1. frustrate, 2. physics, 3. encouraged, 4. decide, 5. electrify, 6. tangible, engineer

ANSWERS: 8. slightly, 9. recipe, 10. resistance, 11. ingredient, 12. curriculum, 13. commerce, 14. parallel, 15. homemade

15. I prefer _____ cookies over store-bought ones.

adj. made at home rather than in a factory or workshop

ANSWERS: 16. disbeliever, 17. shack, 18. sculptures, 19. similarly, 20. resistant, 21. suddenly, 22. squishy, 23. sushi

vegetables and sometimes wrapped in seaweed

29. motors, 30. movement

creative, 37. dim, 38. prototype

39. She tasted the dish and detected a slight
n. the quality or state of being salty
40. The Prime Minister will pay a courtesy visit to the Nobel laureate's
n. a workplace for the conduct of scientific research; a laboratory
41. An intelligent battery has a voltage monitoring
n. (in electrical engineering) an electrical device that provides a path for electrical current to flow; a journey or route around a particular place or area
42. Police will random breath testing for drunk driving.
v. to organize and carry out a particular activity
43. The workshop allowed attendees to work with tools and materials, developing their skills in a hands-on environment.
adj. actively involved, practical; having hands involved in the doing or making of something
44. How can you that the earth is a sphere?
v. to display something or give an exhibition to an interested audience
45. We must a new system to streamline our workflow and increase efficiency.
v. to grow or expand; to improve or refine through a process of progress and refinement, often to achieve greater sophistication or complexity; to elaborate or add detail to something that is in the process of being created
ANSWERS: 39. saltiness, 40. lab, 41. circuit, 42. conduct, 43. hands-on, 44. demonstrate, 45. develop