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Vocabulary Builder Reference from...

Alex Gendler: Can you solve the multiplying rabbits

riddle? | TED Talk

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

ve_the_multiplying_rabbits_riddle



All Words

IMPORTANT

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Session 1: Word List

experiment

 the scientific test conducted to observe what happens and gain new knowledge

synonym: experimentation, investigation

(1) experiment design, (2) series of experiments

His **experiments** showed highly positive results.

pet

- an animal that you have at home as a companion and treated kindly
- (1) a **pet** bird, (2) a teacher's **pet**

I have a parrot as a **pet**.

nanoscale

- adj. on a scale that can be measured in nanometres (= one billionth of a meter); on a very small scale
- nanoscale device, (2) things at the nanoscale
 This process improves the strength of the metal by controlling

the **nanoscale** lattice structure of the metal.

multiply

v. to add a number to itself a specified number of times; to increase or cause to increase very much in number or quantity

synonym: boost, amplify, reproduce

(1) **multiply** 5 and 6, (2) **multiply** about hundredfold **Multiply** a number by itself twice.

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**.

arrange

- v. to plan, prepare for, and carry out something synonym: set up, order, organize
- (1) **arrange** the meeting, (2) the list was **arranged** alphabetically

I need to arrange plans with him for the celebration.

invert

v. to turn something upside down, inside out; to reverse the position, order, or relationship of something

synonym: turn upside down, reverse, flip

(1) **invert** a glass, (2) **invert** position

He decided to **invert** his investment portfolio, shifting from stocks to bonds.

pyramid

 a polyhedron having a polygonal base and triangular sides with a common vertex; a massive monument with a square base and four triangular sides, begun by Cheops around 2700 BC as royal tombs in ancient Egypt

synonym: monument, edifice, tomb

- (1) pyramid architecture, (2) a truncated pyramidThe Egyptian pyramids consist of a vast number of blocks.
- an arrangement of objects or people side by side in a line

synonym: line, sequence, layer

(1) criminal on death **row**, (2) a **row** of cherry trees He was the leader of the demonstrators and spoke out against the war in the front **row**.

row

hermaphrodite

 an organism that possesses both male and female reproductive organs; a person who possesses both male and female physical characteristics

synonym: intersex, androgyne, bisex

(1) **hermaphrodite** fish, (2) **hermaphrodite** human The biology textbook discussed the **hermaphrodite** reproductive system of certain animals.

breed

v. to keep animals for producing offspring in a regulated manner

synonym: raise, multiply, reproduce

(1) **breed** horses, (2) **breed** suspicion

This animal **breeds** in northern latitudes.

horizontal

adj. parallel to the ground or in a baseline; being at the same level as all members of a group

synonym: even, lying, parallel

(1) horizontal lines, (2) horizontal stripes

Airplanes need **horizontal** tails to improve stability.

adjacent

adj. next to, close to, or adjoining something

synonym: next, adjoining, neighboring

(1) adjacent to his house, (2) adjacent houses

Our country has military alliances with adjacent countries.

offspring

n. descendant; any immature animal or plant

synonym: children, descendants, heirs

(1) female offspring, (2) produce offspring

How many **offspring** does the average lion have?

reproduce

 to make a copy of something such as a picture, piece of text, music, etc.; to produce offspring through a sexual or asexual process

synonym: duplicate, breed, imitate

(1) **reproduce** the painting, (2) **reproduce** by myself By dividing and creating copies of themselves, bacteria

reproduce.

overrun

v. to invade or occupy a place or territory by force, especially in large numbers; (noun) the act of taking control or overwhelming something or someone

synonym: invade, conquer, occupy

(1) **overrun** an area, (2) garden **overrun** with weeds The invading army quickly may **overrun** the small country and took control of its capital city.

calculation

n. the act or process of using numbers to judge an amount of something

synonym: analysis, computation, estimate

(1) make a **calculation**, (2) **calculation** of loss and gain The error in the **calculation** was attributable to rounding.

spare

adj. additional to what is necessary for ordinary use; (verb) to give time, money, space, etc. to someone

synonym: extra, excess, (verb) afford

(1) spare parts, (2) spare cost

I made plans to spend my spare time beneficially.

lever

 a handle used to operate a vehicle or a machine; a rigid bar resting on a pivot so that one end of it can be pushed or pulled easily

synonym: lifter, crowbar, bar

(1) a gear change **lever**, (2) **lever** for reform

This initiative will be a **lever** for increasing company sales.

assistant

n. someone who helps or supports someone else to do a job

synonym: aide, helper, associate

(1) an unwilling **assistant**, (2) **assistant** professor

An executive **assistant** director administers each branch.

rival

 a person, company, or thing competing with others for the same thing or in the same area synonym: adversary, competitor, contender

(1) **rival** bidder, (2) merge with a **rival** company He interfered with his **rivals** in various ways during the campaign.

sabotage

n. the deliberate and malicious damage, destruction, or disruption of equipment, machinery, or other property, often by someone with a particular agenda or motive; the subversion of an organization or institution by secret agents or spies

synonym: sabotage, subversion, destruction

(1) act of **sabotage**, (2) **sabotage** mission

The **sabotage** of the factory's equipment caused significant damage.

reproduction

 the process by which organisms create offspring; the production of something similar to an original work

synonym: procreation, replication, duplication

(1) reproduction rate, (2) reproduction systemThe reproduction of the plant depends on the pollinators.

underway

adj. having started and currently in progress

synonym: afoot, ongoing, in motion

(1) just getting **underway**, (2) campaign now **underway** This project has been **underway** for several years.

device

 a piece of equipment, tool, or technology that serves a particular purpose or function, often mechanical or electronic

synonym: gadget, instrument, tool

(1) electronic **device**, (2) tracking **device**I always carry a backup **device** in case my phone runs out of battery.

calculator

a small electronic device for making arithmetic calculations

synonym: computer, machine, estimator

(1) calculator app, (2) analog calculator

I left my alpha **calculator** at home, so I had to borrow one from a classmate to finish my math homework.

malfunction

to fail to operate or work properly; to break down or stop functioning as expected or intended; (noun) a failure or defect in the way a machine, system, or device is supposed to operate

synonym: misfunction, break down, fail

(1) **malfunction** alarm, (2) **malfunction** and start moving unpredictably

The car's engine **malfunctioned** on the highway, so we had to call for a tow truck.

trail

 a path or track roughly through a countryside, mountain, or forest area, often made or used for a particular purpose; (verb) to lag or linger behind

synonym: footpath, track, course

(1) a warm trail, (2) follow the trail

The storm left a **trail** of destruction behind it.

emergency

 a sudden unforeseen crisis usually involving danger that requires immediate action

synonym: crisis, trouble, difficulty

(1) emergency action, (2) acute emergency

The president declared a state of emergency.

shutdown

 the act of stopping or ceasing operation or activity; a temporary or permanent closure or halt to a system, organization, or service

synonym: stoppage, closure, cessation

(1) **shutdown** operation, (2) government **shutdown**

The company announced a temporary **shutdown** due to the pandemic.

pause

 to take a short break from talking or doing something before continuing synonym: halt, break, intermit

(1) **pause** a moment, (2) **pause** for a reaction The man **paused** before opening the door.

calculate

v. to judge or find out the amount or number of something by using mathematics

synonym: compute, figure, estimate

(1) **calculate** the distance, (2) **calculate** his credit score He couldn't **calculate** the actual value of the artwork.

process

n. a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products

synonym: procedure, method, system

(1) **process** improvement, (2) decision-making **process** The **process** for applying for a visa can be lengthy and complicated.

emerge

to move out of or away from something and become visible

synonym: arise, occur, appear

(1) **emerge** as a butterfly, (2) **emerge** from poverty During colonial eras, new migratory patterns **emerged**.

neat

adj. clean or tidy, with everything in its place synonym: tidy, uncluttered, refined

(1) a **neat** piece of work, (2) **neat** idea She has **neat** habits.

apocalyptic

adj. describing severe damage and destruction in past or future events, or the end of the world

synonym: fateful, prophetic, ominous

(1) **apocalyptic** event, (2) have **apocalyptic** overtones The **apocalyptic** landscape of burnt-out villages and bombed-out ruins spread out before them.

triangle

 a three-sided polygon with three angles; something that has three sides or parts

synonym: trilateral, delta, triad

(1) triangle shape, (2) love triangle

The Pythagorean theorem is used to calculate the length of the sides of a right **triangle**.

digit

vield

 one of the elements that collectively form a system of numeration; a finger, thumb, or toe

synonym: number, integer, numeral

- (1) **digit** identifier, (2) the **digit** in the hundreds place We must enter a six- **digit** number to unlock the safe.
- n. the total output of crops, profits, etc. that are produced;
 (verb) to produce or supply helpful something, such as a profit, an amount of food, or information

synonym: proceeds, harvest, output

(1) corn **yield**, (2) the **yield** on the bond The company's stock gives a high **yield**.

hare

 a fast-running mammal with long ears and a short tail that closely resembles a rabbit but is larger and has longer hind legs

synonym: rabbit, bunny, lapin

(1) hare hunting, (2) brown hare

The farmer noticed a group of **hares** had been eating his vegetables, so he put up a fence to keep them out.

disaster

 an unexpected event or series of events that cause widespread damage, destruction, or loss of life

synonym: catastrophe, calamity, tragedy

(1) global **disaster**, (2) **disaster** recovery

The **disaster** response team worked around the clock to aid those affected by the earthquake.

Session 2: Spelling

1.	campaign now unay	adj.	having started and currently in progress
2.	I_b instrument	n.	a workplace for the conduct of scientific research; a laboratory
3.	adnt houses	adj.	next to, close to, or adjoining something
4.	female ofng	n.	descendant; any immature animal or plant
5.	the di_t in the hundreds place	n.	one of the elements that collectively form a system of numeration; a finger, thumb, or toe
6.	horal stripes	adj.	parallel to the ground or in a baseline; being at the same level as all members of a group
7.	global dier	n.	an unexpected event or series of events that cause widespread damage, destruction, or loss of life
8.	ovn an area	v.	to invade or occupy a place or territory by force, especially in large numbers; (noun) the act of taking control or overwhelming something or someone
9.	are the meeting	<i>v</i> .	to plan, prepare for, and carry out something
10.	horal lines	adj.	parallel to the ground or in a baseline; being at the same level as all members of a group
11.	he hunting	n.	a fast-running mammal with long ears and a short tail that closely resembles a

ANSWERS: 1. underway, 2. lab, 3. adjacent, 4. offspring, 5. digit, 6. horizontal, 7. disaster, 8. overrun, 9. arrange, 10. horizontal, 11. hare

legs

rabbit but is larger and has longer hind

12.	muly about hundredfold	v.	to add a number to itself a specified number of times; to increase or cause to increase very much in number or quantity
13.	shwn operation	n.	the act of stopping or ceasing operation or activity; a temporary or permanent closure or halt to a system, organization, or service
14.	brd horses	v.	to keep animals for producing offspring in a regulated manner
15.	tracking dee	n.	a piece of equipment, tool, or technology that serves a particular purpose or function, often mechanical or electronic
16.	acute emcy	n.	a sudden unforeseen crisis usually involving danger that requires immediate action
17.	produce ofng	n.	descendant; any immature animal or plant
18.	criminal on death r_w	n.	an arrangement of objects or people side by side in a line
19.	prs improvement	n.	a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products
20.	spe cost	adj.	additional to what is necessary for ordinary use; (verb) to give time, money, space, etc. to someone

ANSWERS: 12. multiply, 13. shutdown, 14. breed, 15. device, 16. emergency, 17. offspring, 18. row, 19. process, 20. spare

21.	adnt to his house	adj.	next to, close to, or adjoining something
22.	herite human	n.	an organism that possesses both male and female reproductive organs; a person who possesses both male and female physical characteristics
23.	ril bidder	n.	a person, company, or thing competing with others for the same thing or in the same area
24.	emcy action	n.	a sudden unforeseen crisis usually involving danger that requires immediate action
25.	just getting unay	adj.	having started and currently in progress
26.	asnt professor	n.	someone who helps or supports someone else to do a job
27.	n_t idea	adj.	clean or tidy, with everything in its place
28.	a nt piece of work	adj.	clean or tidy, with everything in its place
29.	a warm trI	n.	a path or track roughly through a countryside, mountain, or forest area, often made or used for a particular purpose; (verb) to lag or linger behind
30.	repion rate	n.	the process by which organisms create offspring; the production of something similar to an original work
31.	government shwn	n.	the act of stopping or ceasing operation or activity; a temporary or permanent closure or halt to a system, organization, or service

ANSWERS: 21. adjacent, 22. hermaphrodite, 23. rival, 24. emergency, 25. underway, 26. assistant, 27. neat, 28. neat, 29. trail, 30. reproduction, 31. shutdown

to plan, prepare for, and carry out 32. the list was ar ed alphabetically ν. something 33. mu ly 5 and 6 to add a number to itself a specified ν. number of times; to increase or cause to increase very much in number or quantity 34. act of sa___ge the deliberate and malicious damage, n. destruction, or disruption of equipment, machinery, or other property, often by someone with a particular agenda or motive; the subversion of an organization or institution by secret agents or spies a handle used to operate a vehicle or a 35. le__r for reform machine; a rigid bar resting on a pivot so that one end of it can be pushed or pulled easily a fast-running mammal with long ears 36. brown h e n. and a short tail that closely resembles a rabbit but is larger and has longer hind legs 37. mal____on alarm to fail to operate or work properly; to break down or stop functioning as expected or intended; (noun) a failure or defect in the way a machine, system, or device is supposed to operate 38. ca____te the distance to judge or find out the amount or number of something by using mathematics 39. exp____nt design the scientific test conducted to observe what happens and gain new knowledge

ANSWERS: 32. arrange, 33. multiply, 34. sabotage, 35. lever, 36. hare, 37. malfunction, 38. calculate, 39. experiment

40.	things at the nale	adj.	on a scale that can be measured in nanometres (= one billionth of a meter); on a very small scale
41.	malon and start moving unpredictably	v.	to fail to operate or work properly; to break down or stop functioning as expected or intended; (noun) a failure or defect in the way a machine, system, or device is supposed to operate
42.	merge with a riI company	n.	a person, company, or thing competing with others for the same thing or in the same area
43.	repion system	n.	the process by which organisms create offspring; the production of something similar to an original work
44.	apoic event	adj.	describing severe damage and destruction in past or future events, or the end of the world
45.	eme from poverty	v.	to move out of or away from something and become visible
46.	rece the painting	ν.	to make a copy of something such as a picture, piece of text, music, etc.; to produce offspring through a sexual or asexual process
47.	trle shape	n.	a three-sided polygon with three angles; something that has three sides or parts
48.	a gear change ler	n.	a handle used to operate a vehicle or a machine; a rigid bar resting on a pivot so that one end of it can be pushed or pulled easily

ANSWERS: 40. nanoscale, 41. malfunction, 42. rival, 43. reproduction, 44. apocalyptic, 45. emerge, 46. reproduce, 47. triangle, 48. lever

to turn something upside down, inside 49. in taglass ν. out; to reverse the position, order, or relationship of something 50. em___e as a butterfly to move out of or away from something ν. and become visible one of the elements that collectively 51. di tidentifier n. form a system of numeration; a finger, thumb, or toe adj. additional to what is necessary for 52. sp e parts ordinary use; (verb) to give time, money, space, etc. to someone the total output of crops, profits, etc. 53. the yi d on the bond that are produced; (verb) to produce or supply helpful something, such as a profit, an amount of food, or information 54. series of exp____nts the scientific test conducted to observe n. what happens and gain new knowledge 55. a truncated py____d a polyhedron having a polygonal base n. and triangular sides with a common vertex; a massive monument with a square base and four triangular sides, begun by Cheops around 2700 BC as royal tombs in ancient Egypt 56. cal____on of loss and gain the act or process of using numbers to n. judge an amount of something 57. ap t bird an animal that you have at home as a n. companion and treated kindly

ANSWERS: 49. invert, 50. emerge, 51. digit, 52. spare, 53. yield, 54. experiment, 55. pyramid, 56. calculation, 57. pet, 58. pet

n.

58. a teacher's p t

an animal that you have at home as a

companion and treated kindly

59. corn yi d the total output of crops, profits, etc. n. that are produced; (verb) to produce or supply helpful something, such as a profit, an amount of food, or information the act or process of using numbers to 60. make a cal on n. judge an amount of something 61. pa__e for a reaction to take a short break from talking or ν. doing something before continuing 62. garden ov____n with weeds to invade or occupy a place or territory by force, especially in large numbers; (noun) the act of taking control or overwhelming something or someone a three-sided polygon with three angles; 63. love tr____le n. something that has three sides or parts the deliberate and malicious damage, 64. sa ge mission n. destruction, or disruption of equipment, machinery, or other property, often by someone with a particular agenda or motive; the subversion of an organization or institution by secret agents or spies to take a short break from talking or 65. pa e a moment ν . doing something before continuing 66. py____d architecture a polyhedron having a polygonal base n. and triangular sides with a common vertex; a massive monument with a square base and four triangular sides, begun by Cheops around 2700 BC as royal tombs in ancient Egypt a path or track roughly through a 67. follow the tr n. countryside, mountain, or forest area, often made or used for a particular purpose; (verb) to lag or linger behind

ANSWERS: 59. yield, 60. calculation, 61. pause, 62. overrun, 63. triangle, 64. sabotage, 65. pause, 66. pyramid, 67. trail

68.	calor app	n.	a small electronic device for making arithmetic calculations
69.	analog calor	n.	a small electronic device for making arithmetic calculations
70.	rece by myself	<i>v</i> .	to make a copy of something such as a picture, piece of text, music, etc.; to produce offspring through a sexual or asexual process
71.	nale device	adj.	on a scale that can be measured in nanometres (= one billionth of a meter); on a very small scale
72.	cate his credit score	ν.	to judge or find out the amount or number of something by using mathematics
73.	decision-making prs	n.	a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products
74.	int position	v.	to turn something upside down, inside out; to reverse the position, order, or relationship of something
75.	brd suspicion	<i>v</i> .	to keep animals for producing offspring in a regulated manner
76.	dier recovery	n.	an unexpected event or series of events that cause widespread damage, destruction, or loss of life

ANSWERS: 68. calculator, 69. calculator, 70. reproduce, 71. nanoscale, 72. calculate, 73. process, 74. invert, 75. breed, 76. disaster

77.	an unwilling asnt	n.	someone who helps or supports someone else to do a job
78.	herite fish	n.	an organism that possesses both male and female reproductive organs; a person who possesses both male and female physical characteristics
79.	have apoic overtones	adj.	describing severe damage and destruction in past or future events, or the end of the world
80.	medical I_b	n.	a workplace for the conduct of scientific research; a laboratory
81.	a r_w of cherry trees	n.	an arrangement of objects or people side by side in a line
82.	electronic dee	n.	a piece of equipment, tool, or technology that serves a particular purpose or function, often mechanical or electronic

ANSWERS: 77. assistant, 78. hermaphrodite, 79. apocalyptic, 80. lab, 81. row, 82. device

Session 3: Fill in the Blanks

1.	This process improves the strength of the metal by controlling thelattice structure of the metal.
adj	 on a scale that can be measured in nanometres (= one billionth of a meter); on a very small scale
2.	This animal in northern latitudes.
v.	to keep animals for producing offspring in a regulated manner
3.	I left my alpha at home, so I had to borrow one from a classmate to finish my math homework.
n.	a small electronic device for making arithmetic calculations
4.	The landscape of burnt-out villages and bombed-out ruins spread out before them.
adj	describing severe damage and destruction in past or future events, or the end of the world
5.	The president declared a state of
n.	a sudden unforeseen crisis usually involving danger that requires immediate action
6.	The Pythagorean theorem is used to calculate the length of the sides of a right
n.	a three-sided polygon with three angles; something that has three sides or parts
7.	The error in the was attributable to rounding.
n.	the act or process of using numbers to judge an amount of something
	SWERS: 1. nanoscale, 2. breeds, 3. calculator, 4. apocalyptic, 5. emergency, 6. ngle, 7. calculation

ANSWERS: 8. offspring, 9. hares, 10. disaster, 11. pyramids, 12. reproduction, 13. horizontal, 14. spare

15. I have a parrot as a
n. an animal that you have at home as a companion and treated kindly
16. He interfered with his in various ways during the campaign.
n. a person, company, or thing competing with others for the same thing or in the same area
17. Our country has military alliances with countries.
adj. next to, close to, or adjoining something
18. The man before opening the door.
v. to take a short break from talking or doing something before continuing
19. This initiative will be a for increasing company sales.
n. a handle used to operate a vehicle or a machine; a rigid bar resting on a pivot so that one end of it can be pushed or pulled easily
20. The biology textbook discussed the reproductive system of certain animals.
 an organism that possesses both male and female reproductive organs; a person who possesses both male and female physical characteristics
21. I need to plans with him for the celebration.
v. to plan, prepare for, and carry out something
22. The storm left a of destruction behind it.
 a path or track roughly through a countryside, mountain, or forest area, often made or used for a particular purpose; (verb) to lag or linger behind
ANSWERS: 15. pet, 16. rivals, 17. adjacent, 18. paused, 19. lever, 20. hermaphrodite, 21. arrange, 22. trail

ANSWERS: 31. malfunctioned, 32. device, 33. digit, 34. reproduce, 35. neat, 36. process, 37. row

38.	He couldn't the actual value of the artwork.
v.	to judge or find out the amount or number of something by using mathematics
39.	During colonial eras, new migratory patterns
<i>v</i> .	to move out of or away from something and become visible
40.	An executive director administers each branch.
n.	someone who helps or supports someone else to do a job
41.	The of the factory's equipment caused significant damage.
n.	the deliberate and malicious damage, destruction, or disruption of equipment, machinery, or other property, often by someone with a particular agenda or motive; the subversion of an organization or institution by secret agents or spies

ANSWERS: 38. calculate, 39. emerged, 40. assistant, 41. sabotage