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Vocabulary Builder Reference from...

Colm Kelleher: How we see color | TED Talk

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

All Words

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Session 1: Word List

relate

v. to establish a connection or association between two or more things; to narrate or tell about an event, experience, or relationship; to empathize or feel sympathy with someone or something

synonym: connect, link, associate

(1) **relate** a story, (2) **relate** a message

He tried to **relate** his experience to the group, but they couldn't understand.

frequency

n. an ordered array of colors into which a light beam can be split

synonym: recurrence, repetition, regularity

(1) **frequency** band, (2) high **frequency**

The oscillator hunts for the correct **frequency**.

violet

adj. between blue and purple in hue

synonym: purple

(1) bluish- **violet**, (2) **violet** quartz

Red and **violet** are opposites on the color spectrum.

in-between

adj. occurring or existing between two things or points; intermediate in position, condition, or time

synonym: intermediate, middleman, halfway

(1) **in-between** meals, (2) **in-between** stages

She enjoyed floating in the ocean's **in-between** zone where the waves met the shoreline

property

n. a thing or things that belong to someone

synonym: belongings, possessions, equity

(1) a man of **property**, (2) chemical **property**

He stood to inherit a million-dollar **property**.

dependent

adj. relying on someone or something else for support or aid

synonym: reliant, subject, subordinate

(1) dose- **dependent** induction, (2) a **dependent** person

The small island nation is heavily **dependent** on tourism as its main source of income.

perception

n. a belief, opinion, or image you have based on how you regard, understand, or interpret something; the ability to see, hear, or notice something through the senses

synonym: understanding, idea, awareness

(1) keen **perception**, (2) **perception** of a stimulus

He is a man admired for the depth of his **perception**.

instance

n. a particular example or single occurrence of something

synonym: example, sample, illustration

(1) for **instance**, (2) notable **instance**

These articles cite five **instances** of climate change.

overlap

v. to partially cover something by going beyond its edge

synonym: overlay, cover, bespread

(1) **overlap** one another, (2) **overlap** in many areas

There was no **overlap** between their proposals.

weird

adj. extraordinary, unexpected, or difficult to explain

synonym: bizarre, creepy, peculiar

(1) a **weird** dress, (2) the state of being **weird**

My computer has been acting **weird** recently.

interact

v. to communicate or react with somebody

synonym: cooperate, combine, collaborate

(1) **interact** directly with customers, (2) **interact** with one another

He should **interact** more with his colleagues.

coexist

v. to live or exist together at the same time in the same place

synonym: cohabit, accompany, synchronize

(1) **coexist** with nature, (2) **coexist** with diversity

The different species can **coexist** in the same ecosystem by filling different niches and using different resources.

singe

v. to burn something slightly or superficially, usually by mistake

synonym: sear, char, burn

(1) **singe** off the hair over the flames, (2) **singe** the edges of a fabric

I didn't realize the iron was still hot and **singed** my dress.

harmony

n. the combination of simultaneous musical notes to produce a pleasing effect; an attractive combination of related things and their properties

synonym: balance, accord, congruence

(1) a **harmony** of colors, (2) break a **harmony**

We worked in perfect **harmony**.

biology

n. the scientific study of life and the natural processes of living things

(1) evolutionary **biology**, (2) cell and molecular **biology**

In junior high school, we had to dissect a frog in **biology** class.

humming

adj. producing a continuous, low, vibrating sound like that of the bee

synonym: buzzing, droning, vibrating

(1) **humming** sound, (2) **humming** bird

The **humming** of the bees filled the air as she walked through the garden.

layer

n. a sheet, quantity, or thickness of the material, typically one of several, covering a surface or body; a level or part within a system or set of ideas

synonym : stratum, sheet, coating

(1) **layer** cake, (2) **layer** of paint

The **layer** of frost on the ground was so thick it was difficult to walk on.

retina

n. the innermost light-sensitive membrane covering the back wall of the eyeball

(1) **retinal** cells, (2) **retina** scanner

Damage to the **retina** may play a role in the development of glaucoma.

eyeball

n. the round part of the eye of a vertebrate that is usually inside the head and, therefore, cannot be seen

(1) **eyeball** motion, (2) redness of the **eyeball**

Increased **eyeball** pressure leads to the development of glaucoma.

detect

v. to find or recognize something, especially something difficult to see, hear, etc.

synonym : catch, observe, notice

(1) **detect** a bad event, (2) **detect** smuggling across borders

The security camera has **detected** four intruders.

rod

n. a long, thin, straight piece of wood, metal, or other material used for support, as a weapon, or for punishment

synonym : stick, wand, staff

(1) **rod** cell, (2) curtain **rod**

He used a fishing **rod** to catch the biggest fish of the day.

- cone** *n.* a geometric shape that tapers to a point at one end and has a circular base at the other end
(1) traffic **cone**, (2) ice cream **cone**
Cone-shaped cells in the eye's retina are responsible for color vision and visual acuity.
- roughly** *adv.* approximately but not precisely; with a violent manner
synonym: approximately, more or less, around
(1) **roughly** explain my idea, (2) **roughly** speaking
Five miles is **roughly** similar to eight kilometers.
- correspond** *v.* to match or be similar to something else almost exactly; to exchange messages
synonym: match, equate, communicate
(1) **correspond** to a standard, (2) **correspond** with a foreign student
The numbers on the sign **correspond** to points on the map.
- distinct** *adj.* noticeable from something else of a similar type
synonym: different, special, characteristic
(1) **distinct** difference, (2) **distinct** from each other
It is essential to keep these two issues **distinct**.
- brain** *n.* the organ inside the head that is responsible for one's movement, thought, memory, and feeling
synonym: intellect, mind, encephalon
(1) basic **brain** function, (2) permanent **brain** damage
X-rays revealed a small tumor in his **brain**.
- suppose** *v.* to think that something is likely to be actual or possible
synonym: guess, assume, presume
(1) **suppose** you're right, (2) **suppose** beforehand
What do you **suppose** the culprit's motive was?
- shining** *adj.* giving off or reflecting light; bright, glistening, or gleaming; characterized by impressive accomplishments or excellence

synonym : sparkling, gleaming, radiant

(1) **shining** star, (2) **shining** example

The **shining** sun reflected off the calm ocean water.

specifically

adv. only associated with or meant for one thing

synonym : especially, particularly, notably

(1) designed **specifically** for men, (2) for **specifically** American customers

This ad campaign is aimed **specifically** at young women.

activate

v. make something start working, more active or dynamic

synonym : mobilize, stimulate, initiate

(1) **activate** a receptor, (2) **activate** a motor

You must **activate** the software with a 16-digit key before you can use it.

simultaneously

adv. at the same time

synonym : concurrently, coincidentally, together

(1) **simultaneously** affected, (2) take several inputs **simultaneously**

Two students answered the teacher's question **simultaneously**.

regardless

adv. not paying attention or considering something or someone even if the situation is bad or there are difficulties

synonym : anyhow, nevertheless, still

(1) **regardless** of the difficulties, (2) **regardless** tread

People can pick out superior products **regardless** of the quality of the advertising.

mixture

n. a combination of different elements, substances, or entities, usually in non-uniform proportions, resulting in a homogeneous or heterogeneous blend of physical or chemical properties

synonym : blend, amalgam, concoction

(1) **mixture** of emotions, (2) perfect **mixture**

The paint was a **mixture** of different pigments to achieve the desired color.

infinite

adj. unlimited or very great; impossible to measure

synonym: boundless, countless, limitless

(1) **infinite** appetite, (2) **infinite** in supply

The battle had an **infinite** impact on the nation.

combination

n. a collection of things that have been combined; an assemblage of separate parts or qualities

synonym: blend, hybrid, compounding

(1) genic **combinations**, (2) **combination** number

The **combination** to the safe was a secret.

vision

n. the ability to think about or see the future with imagination and intelligence; the faculty of being able to see

synonym: sight, image, concept

(1) a prodigious **vision**, (2) telescopic **vision**

Driving is difficult for me because of my poor **vision**.

manufacture

v. to make goods in large numbers, usually in a factory using machines

synonym: create, fabricate, assemble

(1) **manufacture** an enzyme, (2) **manufacture** a product

The majority of synthetic vitamins are **manufactured** from oil.

simulate

v. to make a pretense of someone's behavior or looks; to reproduce something that exists in real life using computers, models, etc., usually for study or training purposes

synonym: pretend, imitate, mimic

(1) **simulate** climate change, (2) **simulate** a future scenario

He had painted the wood to **simulate** stone.

Session 2: Spelling

1. per_____on of a stimulus
n. a belief, opinion, or image you have based on how you regard, understand, or interpret something; the ability to see, hear, or notice something through the senses
2. hu_____g bird
adj. producing a continuous, low, vibrating sound like that of the bee
3. sim_____sly affected
adv. at the same time
4. ey_____l motion
n. the round part of the eye of a vertebrate that is usually inside the head and, therefore, cannot be seen
5. a ha_____y of colors
n. the combination of simultaneous musical notes to produce a pleasing effect; an attractive combination of related things and their properties
6. for in_____ce
n. a particular example or single occurrence of something
7. the state of being we__d
adj. extraordinary, unexpected, or difficult to explain
8. perfect mi_____e
n. a combination of different elements, substances, or entities, usually in non-uniform proportions, resulting in a homogeneous or heterogeneous blend of physical or chemical properties
9. ov_____p in many areas
v. to partially cover something by going beyond its edge

ANSWERS: 1. perception, 2. humming, 3. simultaneously, 4. eyeball, 5. harmony, 6. instance, 7. weird, 8. mixture, 9. overlap

10. mi_____e of emotions *n.* a combination of different elements, substances, or entities, usually in non-uniform proportions, resulting in a homogeneous or heterogeneous blend of physical or chemical properties
11. reg_____ss of the difficulties *adv.* not paying attention or considering something or someone even if the situation is bad or there are difficulties
12. in-_____en stages *adj.* occurring or existing between two things or points; intermediate in position, condition, or time
13. dose-de_____nt induction *adj.* relying on someone or something else for support or aid
14. a prodigious vi____n *n.* the ability to think about or see the future with imagination and intelligence; the faculty of being able to see
15. man_____re a product *v.* to make goods in large numbers, usually in a factory using machines
16. fr_____cy band *n.* an ordered array of colors into which a light beam can be split
17. si__e the edges of a fabric *v.* to burn something slightly or superficially, usually by mistake
18. break a ha_____y *n.* the combination of simultaneous musical notes to produce a pleasing effect; an attractive combination of related things and their properties
19. com_____on number *n.* a collection of things that have been combined; an assemblage of separate parts or qualities

ANSWERS: 10. mixture, 11. regardless, 12. in-between, 13. dependent, 14. vision, 15. manufacture, 16. frequency, 17. singe, 18. harmony, 19. combination

20. in_____te in supply *adj.* unlimited or very great; impossible to measure
21. designed spe_____lly for men *adv.* only associated with or meant for one thing
22. keen per_____on *n.* a belief, opinion, or image you have based on how you regard, understand, or interpret something; the ability to see, hear, or notice something through the senses
23. la__r of paint *n.* a sheet, quantity, or thickness of the material, typically one of several, covering a surface or body; a level or part within a system or set of ideas
24. curtain r_d *n.* a long, thin, straight piece of wood, metal, or other material used for support, as a weapon, or for punishment
25. high fr_____cy *n.* an ordered array of colors into which a light beam can be split
26. in-_____en meals *adj.* occurring or existing between two things or points; intermediate in position, condition, or time
27. ac_____te a motor *v.* make something start working, more active or dynamic
28. si_____te a future scenario *v.* to make a pretense of someone's behavior or looks; to reproduce something that exists in real life using computers, models, etc., usually for study or training purposes

ANSWERS: 20. infinite, 21. specifically, 22. perception, 23. layer, 24. rod, 25. frequency, 26. in-between, 27. activate, 28. simulate

29. cor_____nd to a standard *v.* to match or be similar to something else almost exactly; to exchange messages
30. cell and molecular bi_____y *n.* the scientific study of life and the natural processes of living things
31. re___al cells *n.* the innermost light-sensitive membrane covering the back wall of the eyeball
32. take several inputs sim_____sly *adv.* at the same time
33. in_____ct directly with customers *v.* to communicate or react with somebody
34. a man of pr_____ty *n.* a thing or things that belong to someone
35. di_____ct difference *adj.* noticeable from something else of a similar type
36. man_____re an enzyme *v.* to make goods in large numbers, usually in a factory using machines
37. re___e a message *v.* to establish a connection or association between two or more things; to narrate or tell about an event, experience, or relationship; to empathize or feel sympathy with someone or something
38. sh_____g star *adj.* giving off or reflecting light; bright, glistening, or gleaming; characterized by impressive accomplishments or excellence
39. permanent br___n damage *n.* the organ inside the head that is responsible for one's movement, thought, memory, and feeling
40. notable in_____ce *n.* a particular example or single occurrence of something

ANSWERS: 29. correspond, 30. biology, 31. retina, 32. simultaneously, 33. interact, 34. property, 35. distinct, 36. manufacture, 37. relate, 38. shining, 39. brain, 40. instance

41. si____te climate change *v.* to make a pretense of someone's behavior or looks; to reproduce something that exists in real life using computers, models, etc., usually for study or training purposes
42. de____t a bad event *v.* to find or recognize something, especially something difficult to see, hear, etc.
43. r_d cell *n.* a long, thin, straight piece of wood, metal, or other material used for support, as a weapon, or for punishment
44. evolutionary bi____y *n.* the scientific study of life and the natural processes of living things
45. cor_____nd with a foreign student *v.* to match or be similar to something else almost exactly; to exchange messages
46. in____te appetite *adj.* unlimited or very great; impossible to measure
47. ac____te a receptor *v.* make something start working, more active or dynamic
48. co____t with diversity *v.* to live or exist together at the same time in the same place
49. di____ct from each other *adj.* noticeable from something else of a similar type
50. a we__d dress *adj.* extraordinary, unexpected, or difficult to explain
51. genic com_____ons *n.* a collection of things that have been combined; an assemblage of separate parts or qualities

ANSWERS: 41. simulate, 42. detect, 43. rod, 44. biology, 45. correspond, 46. infinite, 47. activate, 48. coexist, 49. distinct, 50. weird, 51. combination

52. de___t smuggling across borders *v.* to find or recognize something, especially something difficult to see, hear, etc.
53. redness of the ey_____l *n.* the round part of the eye of a vertebrate that is usually inside the head and, therefore, cannot be seen
54. telescopic vi___n *n.* the ability to think about or see the future with imagination and intelligence; the faculty of being able to see
55. ice cream c___e *n.* a geometric shape that tapers to a point at one end and has a circular base at the other end
56. si___e off the hair over the flames *v.* to burn something slightly or superficially, usually by mistake
57. ro_____y explain my idea *adv.* approximately but not precisely; with a violent manner
58. for spe_____lly American customers *adv.* only associated with or meant for one thing
59. su_____e you're right *v.* to think that something is likely to be actual or possible
60. su_____e beforehand *v.* to think that something is likely to be actual or possible
61. co_____t with nature *v.* to live or exist together at the same time in the same place
62. ov_____p one another *v.* to partially cover something by going beyond its edge
63. vi___t quartz *adj.* between blue and purple in hue
64. re___a scanner *n.* the innermost light-sensitive membrane covering the back wall of the eyeball

ANSWERS: 52. detect, 53. eyeball, 54. vision, 55. cone, 56. singe, 57. roughly, 58. specifically, 59. suppose, 60. suppose, 61. coexist, 62. overlap, 63. violet, 64. retina

65. in____ct with one another *v.* to communicate or react with somebody
66. basic br__n function *n.* the organ inside the head that is responsible for one's movement, thought, memory, and feeling
67. a de_____nt person *adj.* relying on someone or something else for support or aid
68. bluish-vi____t *adj.* between blue and purple in hue
69. re___e a story *v.* to establish a connection or association between two or more things; to narrate or tell about an event, experience, or relationship; to empathize or feel sympathy with someone or something
70. traffic c___e *n.* a geometric shape that tapers to a point at one end and has a circular base at the other end
71. ro____y speaking *adv.* approximately but not precisely; with a violent manner
72. hu____g sound *adj.* producing a continuous, low, vibrating sound like that of the bee
73. sh____g example *adj.* giving off or reflecting light; bright, glistening, or gleaming; characterized by impressive accomplishments or excellence
74. la__r cake *n.* a sheet, quantity, or thickness of the material, typically one of several, covering a surface or body; a level or part within a system or set of ideas
75. chemical pr____ty *n.* a thing or things that belong to someone

ANSWERS: 65. interact, 66. brain, 67. dependent, 68. violet, 69. relate, 70. cone, 71. roughly, 72. humming, 73. shining, 74. layer, 75. property

76. reg_____ss tread

adv. not paying attention or considering something or someone even if the situation is bad or there are difficulties

ANSWERS: 76. regardless

Session 3: Fill in the Blanks

1. The _____ sun reflected off the calm ocean water.
adj. giving off or reflecting light; bright, glistening, or gleaming; characterized by impressive accomplishments or excellence
2. The battle had an _____ impact on the nation.
adj. unlimited or very great; impossible to measure
3. She enjoyed floating in the ocean's _____ zone where the waves met the shoreline
adj. occurring or existing between two things or points; intermediate in position, condition, or time
4. The small island nation is heavily _____ on tourism as its main source of income.
adj. relying on someone or something else for support or aid
5. He is a man admired for the depth of his _____.
n. a belief, opinion, or image you have based on how you regard, understand, or interpret something; the ability to see, hear, or notice something through the senses
6. These articles cite five _____ of climate change.
n. a particular example or single occurrence of something
7. In junior high school, we had to dissect a frog in _____ class.
n. the scientific study of life and the natural processes of living things

ANSWERS: 1. shining, 2. infinite, 3. in-between, 4. dependent, 5. perception, 6. instances, 7. biology

8. Damage to the _____ may play a role in the development of glaucoma.
n. the innermost light-sensitive membrane covering the back wall of the eyeball
9. Five miles is _____ similar to eight kilometers.
adv. approximately but not precisely; with a violent manner
10. The _____ of the bees filled the air as she walked through the garden.
adj. producing a continuous, low, vibrating sound like that of the bee
11. We worked in perfect _____.
n. the combination of simultaneous musical notes to produce a pleasing effect; an attractive combination of related things and their properties
12. Driving is difficult for me because of my poor _____.
n. the ability to think about or see the future with imagination and intelligence; the faculty of being able to see
13. This ad campaign is aimed _____ at young women.
adv. only associated with or meant for one thing
14. People can pick out superior products _____ of the quality of the advertising.
adv. not paying attention or considering something or someone even if the situation is bad or there are difficulties
15. The numbers on the sign _____ to points on the map.
v. to match or be similar to something else almost exactly; to exchange messages
16. The security camera has _____ four intruders.
v. to find or recognize something, especially something difficult to see, hear, etc.

ANSWERS: 8. retina, 9. roughly, 10. humming, 11. harmony, 12. vision, 13. specifically, 14. regardless, 15. correspond, 16. detected

17. The oscillator hunts for the correct _____.

n. an ordered array of colors into which a light beam can be split

18. I didn't realize the iron was still hot and _____ my dress.

v. to burn something slightly or superficially, usually by mistake

19. It is essential to keep these two issues _____.

adj. noticeable from something else of a similar type

20. My computer has been acting _____ recently.

adj. extraordinary, unexpected, or difficult to explain

21. The different species can _____ in the same ecosystem by filling different niches and using different resources.

v. to live or exist together at the same time in the same place

22. The _____ to the safe was a secret.

n. a collection of things that have been combined; an assemblage of separate parts or qualities

23. He tried to _____ his experience to the group, but they couldn't understand.

v. to establish a connection or association between two or more things; to narrate or tell about an event, experience, or relationship; to empathize or feel sympathy with someone or something

24. X-rays revealed a small tumor in his _____.

n. the organ inside the head that is responsible for one's movement, thought, memory, and feeling

ANSWERS: 17. frequency, 18. singed, 19. distinct, 20. weird, 21. coexist, 22. combination, 23. relate, 24. brain

25. Two students answered the teacher's question _____.
- adv.* at the same time
26. _____ cells in the eye's retina are responsible for color vision and visual acuity.
- n.* a geometric shape that tapers to a point at one end and has a circular base at the other end
27. The _____ of frost on the ground was so thick it was difficult to walk on.
- n.* a sheet, quantity, or thickness of the material, typically one of several, covering a surface or body; a level or part within a system or set of ideas
28. Red and _____ are opposites on the color spectrum.
- adj.* between blue and purple in hue
29. The majority of synthetic vitamins are _____ from oil.
- v.* to make goods in large numbers, usually in a factory using machines
30. He stood to inherit a million-dollar _____.
- n.* a thing or things that belong to someone
31. Increased _____ pressure leads to the development of glaucoma.
- n.* the round part of the eye of a vertebrate that is usually inside the head and, therefore, cannot be seen
32. You must _____ the software with a 16-digit key before you can use it.
- v.* make something start working, more active or dynamic
33. What do you _____ the culprit's motive was?
- v.* to think that something is likely to be actual or possible

ANSWERS: 25. simultaneously, 26. Cone-shaped, 27. layer, 28. violet, 29. manufactured, 30. property, 31. eyeball, 32. activate, 33. suppose

34. He used a fishing ____ to catch the biggest fish of the day.
- n.* a long, thin, straight piece of wood, metal, or other material used for support, as a weapon, or for punishment
35. He had painted the wood to _____ stone.
- v.* to make a pretense of someone's behavior or looks; to reproduce something that exists in real life using computers, models, etc., usually for study or training purposes
36. The paint was a _____ of different pigments to achieve the desired color.
- n.* a combination of different elements, substances, or entities, usually in non-uniform proportions, resulting in a homogeneous or heterogeneous blend of physical or chemical properties
37. There was no _____ between their proposals.
- v.* to partially cover something by going beyond its edge
38. He should _____ more with his colleagues.
- v.* to communicate or react with somebody

ANSWERS: 34. rod, 35. simulate, 36. mixture, 37. overlap, 38. interact