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Vocabulary Builder Reference from...

Andrew Pontzen and Tom Whyntie: *The fundamentals of space-time: Part 2 | TED Talk*
https://www.ted.com/talks/andrew_pontzen_and_tom_whyntie_the_fundamentals_of_space_time_part_2

All Words

IMPORTANT

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Session 1: Word List

universe

n. everything that exists, especially all physical matter, including planets, stars, galaxies, and all other forms of matter and energy

synonym: cosmos, macrocosm

(1) theory of the **universe**, (2) expansion of the **universe**

The **universe** is about 13.8 billion years old.

animation

n. the technique of photographing successive drawings or positions of puppets or models to create an illusion of movement when the film is shown as a sequence; enthusiasm and energy in the way you look or behave

synonym: motion, movement, liveliness

(1) **animation** studio, (2) **animation** film

The **animation** of the characters in the movie was so realistic, and it was as if they were there.

analyze

v. to think about in-depth and evaluate to discover essential features or meaning

synonym: explore, examine, investigate

(1) **analyze** a chemical compound, (2) **analyze** your real motives

The teacher attempted to **analyze** the root cause of our mistake.

diagram

n. a simplified illustration of the appearance, structure, or workings of something

synonym: chart, figure, graph

(1) 3D **diagram**, (2) in a **diagram**

He is drawing a **diagram** illustrating how the equipment operates.

flip

v. to turn over into a different position quickly; to throw or toss with a light motion

synonym: throw, jump

(1) **flip** over the pork chop, (2) **flip** a coin

He **flipped** when he heard that he had been accepted into the university.

panel

n. a square or rectangular and flat piece of something that forms a distinct section or component of something; a small group of specialists who discuss particular topics or give their advice or opinion about something

synonym: board, commission, discussion

(1) **panel** discussion, (2) cost of solar **panels**

A **panel** of economic advisers from the United States visited the country to help rebuild its economy.

experimental

adj. relating to or based on new ideas, forms, methods, etc. that have not been tried before, usually to find out what effect they have

synonym: empirical, exploratory, observed

(1) **experimental** data, (2) **experimental** design

The product is still in the **experimental** stage.

equivalent

n. having the same value, quality, meaning, purpose, etc.

synonym: equal, counterpart, match

(1) **equivalent** amounts, (2) **equivalent** in meaning

The European Central Bank is Europe's **equivalent** of the Federal Reserve.

perspective

n. a confident attitude toward something; a particular style of thinking about something

synonym: viewpoint, standpoint, outlook

(1) a **perspective** view, (2) the **perspective** of the battle
His father's death changed his whole **perspective** on life.

contradiction

n. the assertion of the opposite of what has been said; opposition; denial

synonym: inconsistency, opposition, contravention

(1) **contradiction** of capitalism, (2) apparent **contradiction**
His statement was filled with **contradictions** that made it difficult to take seriously.

laser

n. a device that emits powerful and narrow light that can be used as a tool to cut metal through a process of optical amplification

synonym: beam, bar, ray

(1) **laser** printer, (2) pulse **laser**

The company holds patents on core components of **laser** jet printers.

construct

v. to build or create something; to assemble or combine different parts to form something whole

synonym: build, assemble, create

(1) **construct** a 3D image, (2) **construct** a dam

He **constructs** hypotheses that no mathematician has ever imagined before.

stack

n. a pile of something arranged or laid one on top of another; a large tall chimney through which combustion gases and smoke can be evacuated

synonym: accumulation, heap, pile

(1) high **stack**, (2) a large **stack** of paper

The earthquake caused a **stack** of lumber to crumble noisily.

represent

v. to speak, act, or be present on behalf of another person or group; to form or constitute

synonym : depict, express, describe

(1) **represent** by a diagram, (2) the characters that **represent** numbers

We elected him to **represent** us at the international conference.

vertical

adj. upright or perpendicular to a horizontal surface or line

synonym : perpendicular, upright, plumb

(1) **vertical** takeoff, (2) **vertical** axis

The ladder leaned against the **vertical** surface of the building.

rearrange

v. to change the order or position of things already made; to change the time, date, or place of an event already planned

synonym : readjust, reorganize, reconstruct

(1) **rearrange** the furniture, (2) **rearrange** his schedule

Please **rearrange** these files as we start a new project tomorrow.

tilt

v. to incline or bend from a vertical position; (noun) the act of inclining or the state of being inclined or leaning to one side

synonym : incline, slant, lean

(1) on the **tilt**, (2) **tilt** a chair

She **tilted** her head to the side, indicating she was listening.

experiment

n. 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.

chap

n. a crack in the skin, especially on the lips or hands, caused by dryness or cold weather; a man or boy; (verb) to crack, split, or roughen the skin, especially as a result of exposure to cold weather or wind

synonym : fellow, guy, crack

(1) **chap** stick, (2) nice **chap**

He suffered a painful **chap** on his hand after working with chemicals.

prop

n. a piece of wood, metal, etc., placed beneath or against something to support it or keep it in position; a system, institution, or person that gives help or support to someone or something

synonym : support, buttress, column

(1) emotional **prop**, (2) **prop** stick

We have finally lost our last **prop**.

glue

n. a sticky substance used for joining things together; a bonding agent made from animal or synthetic materials

synonym : adhesive, paste, gum

(1) **glue** stick, (2) epoxy **glue**

The carpenter applied **glue** to the cabinet joints before nailing them together.

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.

solid

adj. hard or firm; characterized by good substantial quality

synonym : stable, reliable, hard

(1) **solid** ally, (2) **solid** employment measures

The **solid-state** of water is called ice.

continuous

adj. occurring or existing without a pause or interruption

synonym : ceaseless, regular, repeated

(1) **continuous** improvement, (2) a **continuous** row of warehouses

The heavy snow has been **continuous** since last morning.

stretch

v. to make or be capable of making anything longer or broader without hurting or breaking

synonym: lengthen, prolong, extend

(1) **stretch** along the coast, (2) **stretch** a story

Some herds have been observed to **stretch** hundreds of kilometers.

squash

v. to forcefully crush or flatten something; to suppress, stifle, or defeat an idea or opposition forcefully

synonym: smash, crush, compress

(1) **squash** a package, (2) **squash** a rebellion

I like to **squash** my grapes when making homemade wine.

abracadabra

n. a word or incantation used in magical or enchanting spells, often in popular culture and entertainment; anything that is mysterious or unexplainable

synonym: magic word, incantation, charm

(1) **abracadabra** magic show, (2) **abracadabra** formula

The wizard spoke the ancient **abracadabra**, and the stone door slowly began to open.

superb

adj. extremely good; excellent in quality; superbly done

synonym: outstanding, excellent, fabulous

(1) **superb** quality, (2) **superb** performance

The meal we had at the restaurant was **superb**; I highly recommend it.

transformation

n. a complete change in form, nature, or appearance of someone or something

synonym: change, conversion, renewal

(1) the **transformation** of a tadpole into a frog, (2) cast a **transformation** spell

Understanding unitary **transformations** of a normal matrix require considerable mathematical sophistication.

slice

n. a flat, often thin, piece of bread, meat, cheese, etc., that has been cut from a larger piece; a wound made by cutting

synonym: piece, portion, slit

(1) a **slice** of the company's revenue, (2) **slice** a tomato thin
The children complained because one **slice** of cake was slightly larger than the other.

physically

adv. in a way related to a person's body or appearance rather than their mind

(1) **physically** and mentally, (2) stay **physically** fit
Having a **physically** healthy physique is essential for a great life.

stationary

adj. not moving or not capable of being changed

synonym: fixed, immobile, changeless

(1) remain **stationary**, (2) **stationary** bike
Stationary vehicles in traffic jams produce a tremendous amount of pollution.

fence

n. a structure, usually made of wood or metal, that encloses an area, typically for protection or to keep animals or people in or out; a dealer in stolen property

synonym: barrier, wall, hedge

(1) **fence** post, (2) a brushwood **fence**
She planted a hedge to serve as a natural **fence** around her garden.

physics

n. the science of matter and energy and their interactions

(1) nuclear **physics**, (2) laws of **physics**

He studied the **physics** of radiation.

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?

muddle

v. to mix up or confuse something; to make a mess of something; to create disorder or chaos

synonym: confuse, jumble, mix up

(1) **muddle** the instructions, (2) **muddle** the situation

I accidentally **muddled** up the reports and need help to tell which.

contraction

n. the act or process of becoming smaller or shorter in size, volume, or amount

synonym: shrinking, compression, reduction

(1) **contraction** of a disease, (2) **contraction** in the industry

The **contraction** of the economy has led to job losses.

contract

n. a legally binding agreement between two or more parties, setting out their rights and obligations to each other, typically in writing and enforceable by law

synonym: agreement, deal, arrangement

(1) employment **contract**, (2) **contract** law

The company signed a **contract** with the supplier for the delivery of goods.

dilate

v. to make something wider, larger, or more open

synonym: widen, open, enlarge

(1) **dilate** the bronchial tubes, (2) **dilate** blood vessel

The pupils of the eyes **dilate** in low light.

illustrate

v. to provide pictures, photographs, diagrams, etc. in a book or something for explanation

synonym: demonstrate, explain, exemplify

(1) **illustrate** a key point, (2) **illustrate** a story

The company's financial records **illustrate** how successful it has been.

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.

particle

n. a small piece of something; a word or piece of a term with grammatical function but little or no significance

synonym: atom, grain, bit

(1) charged **particle**, (2) **particle** energy

We can calculate the position of the **particles** statistically.

whiz

v. to move or run quickly and smoothly with a hissing or buzzing sound; to excel or perform skillfully in a particular area; to urinate; (noun) a person who is very clever or skilled at something

synonym: zoom, zip, hurry

(1) **whiz** kid, (2) **whiz** through the book

The racing car **whizzed** past the grandstands, leaving a trail of dust behind it.

collide

v. to hit something violently when moving

synonym: clash, slam, contradict

(1) **collide** head-on, (2) **collide** in midair

The interests of the two countries **collide**.

confirm

v. to support or establish the truth or certainty of something previously believed or suspected to be the case

synonym: affirm, verify, assure

(1) **confirm** the diagnosis, (2) **confirm** a transaction

Please write to **confirm** your reservation.

ambitious

adj. having a great desire to attain achievement, power, or wealth

synonym: enterprising, challenging, earnest

(1) achieve **ambitious** goals, (2) with an **ambitious** eye

Their company has been in business for a short time but has **ambitious** goals.

Session 2: Spelling

1. so__d employment measures *adj.* hard or firm; characterized by good substantial quality
2. re_____ge the furniture *v.* to change the order or position of things already made; to change the time, date, or place of an event already planned
3. equ_____nt amounts *n.* having the same value, quality, meaning, purpose, etc.
4. di___e the bronchial tubes *v.* to make something wider, larger, or more open
5. pa__l discussion *n.* a square or rectangular and flat piece of something that forms a distinct section or component of something; a small group of specialists who discuss particular topics or give their advice or opinion about something
6. co_____ct law *n.* a legally binding agreement between two or more parties, setting out their rights and obligations to each other, typically in writing and enforceable by law
7. la__r printer *n.* a device that emits powerful and narrow light that can be used as a tool to cut metal through a process of optical amplification
8. mu___e the situation *v.* to mix up or confuse something; to make a mess of something; to create disorder or chaos

ANSWERS: 1. solid, 2. rearrange, 3. equivalent, 4. dilate, 5. panel, 6. contract, 7. laser, 8. muddle

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|------------------------------------|--|
| 9. ve____al takeoff | <i>adj.</i> upright or perpendicular to a horizontal surface or line |
| 10. ve____al axis | <i>adj.</i> upright or perpendicular to a horizontal surface or line |
| 11. con_____on in the industry | <i>n.</i> the act or process of becoming smaller or shorter in size, volume, or amount |
| 12. t__t a chair | <i>v.</i> to incline or bend from a vertical position; (noun) the act of inclining or the state of being inclined or leaning to one side |
| 13. co_____m the diagnosis | <i>v.</i> to support or establish the truth or certainty of something previously believed or suspected to be the case |
| 14. se_____te video into chapter | <i>v.</i> to force, take, or pull apart; mark as different |
| 15. a per_____ve view | <i>n.</i> a confident attitude toward something; a particular style of thinking about something |
| 16. a con_____us row of warehouses | <i>adj.</i> occurring or existing without a pause or interruption |
| 17. high st__k | <i>n.</i> a pile of something arranged or laid one on top of another; a large tall chimney through which combustion gases and smoke can be evacuated |
| 18. mu___e the instructions | <i>v.</i> to mix up or confuse something; to make a mess of something; to create disorder or chaos |
| 19. for in_____ce | <i>n.</i> a particular example or single occurrence of something |

ANSWERS: 9. vertical, 10. vertical, 11. contraction, 12. tilt, 13. confirm, 14. separate, 15. perspective, 16. continuous, 17. stack, 18. muddle, 19. instance

20. theory of the un_____se *n.* everything that exists, especially all physical matter, including planets, stars, galaxies, and all other forms of matter and energy
21. se_____te cream from milk *v.* to force, take, or pull apart; mark as different
22. w__z kid *v.* to move or run quickly and smoothly with a hissing or buzzing sound; to excel or perform skillfully in a particular area; to urinate; (noun) a person who is very clever or skilled at something
23. the per_____ve of the battle *n.* a confident attitude toward something; a particular style of thinking about something
24. remain sta_____ry *adj.* not moving or not capable of being changed
25. epoxy g__e *n.* a sticky substance used for joining things together; a bonding agent made from animal or synthetic materials
26. sl__e a tomato thin *n.* a flat, often thin, piece of bread, meat, cheese, etc., that has been cut from a larger piece; a wound made by cutting
27. pa_____le energy *n.* a small piece of something; a word or piece of a term with grammatical function but little or no significance
28. su___b performance *adj.* extremely good; excellent in quality; superbly done
29. notable in_____ce *n.* a particular example or single occurrence of something

ANSWERS: 20. universe, 21. separate, 22. whiz, 23. perspective, 24. stationary, 25. glue, 26. slice, 27. particle, 28. superb, 29. instance

30. st____h a story *v.* to make or be capable of making anything longer or broader without hurting or breaking
31. equ_____nt in meaning *n.* having the same value, quality, meaning, purpose, etc.
32. exp_____tal data *adj.* relating to or based on new ideas, forms, methods, etc. that have not been tried before, usually to find out what effect they have
33. on the t__t *v.* to incline or bend from a vertical position; (noun) the act of inclining or the state of being inclined or leaning to one side
34. phy_____ly and mentally *adv.* in a way related to a person's body or appearance rather than their mind
35. a brushwood fe__e *n.* a structure, usually made of wood or metal, that encloses an area, typically for protection or to keep animals or people in or out; a dealer in stolen property
36. abr_____ra magic show *n.* a word or incantation used in magical or enchanting spells, often in popular culture and entertainment; anything that is mysterious or unexplainable
37. in a di_____m *n.* a simplified illustration of the appearance, structure, or workings of something
38. con_____ion of capitalism *n.* the assertion of the opposite of what has been said; opposition; denial

ANSWERS: 30. stretch, 31. equivalent, 32. experimental, 33. tilt, 34. physically, 35. fence, 36. abracadabra, 37. diagram, 38. contradiction

39. exp_____tal design *adj.* relating to or based on new ideas, forms, methods, etc. that have not been tried before, usually to find out what effect they have
40. series of exp_____nts *n.* the scientific test conducted to observe what happens and gain new knowledge
41. f__p a coin *v.* to turn over into a different position quickly; to throw or toss with a light motion
42. an_____on studio *n.* the technique of photographing successive drawings or positions of puppets or models to create an illusion of movement when the film is shown as a sequence; enthusiasm and energy in the way you look or behave
43. cost of solar pa__ls *n.* a square or rectangular and flat piece of something that forms a distinct section or component of something; a small group of specialists who discuss particular topics or give their advice or opinion about something
44. co_____e head-on *v.* to hit something violently when moving
45. fe__e post *n.* a structure, usually made of wood or metal, that encloses an area, typically for protection or to keep animals or people in or out; a dealer in stolen property
46. so__d ally *adj.* hard or firm; characterized by good substantial quality

ANSWERS: 39. experimental, 40. experiment, 41. flip, 42. animation, 43. panel, 44. collide, 45. fence, 46. solid

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|--------------------------------|---|
| 47. sta_____ry bike | <i>adj.</i> not moving or not capable of being changed |
| 48. an_____e your real motives | <i>v.</i> to think about in-depth and evaluate to discover essential features or meaning |
| 49. co_____e in midair | <i>v.</i> to hit something violently when moving |
| 50. su_____e you're right | <i>v.</i> to think that something is likely to be actual or possible |
| 51. di____e blood vessel | <i>v.</i> to make something wider, larger, or more open |
| 52. laws of ph_____s | <i>n.</i> the science of matter and energy and their interactions |
| 53. achieve am_____us goals | <i>adj.</i> having a great desire to attain achievement, power, or wealth |
| 54. charged pa_____le | <i>n.</i> a small piece of something; a word or piece of a term with grammatical function but little or no significance |
| 55. stay phy_____ly fit | <i>adv.</i> in a way related to a person's body or appearance rather than their mind |
| 56. f__p over the pork chop | <i>v.</i> to turn over into a different position quickly; to throw or toss with a light motion |
| 57. su____b quality | <i>adj.</i> extremely good; excellent in quality; superbly done |
| 58. su_____e beforehand | <i>v.</i> to think that something is likely to be actual or possible |
| 59. co_____ct a 3D image | <i>v.</i> to build or create something; to assemble or combine different parts to form something whole |

ANSWERS: 47. stationary, 48. analyze, 49. collide, 50. suppose, 51. dilate, 52. physics, 53. ambitious, 54. particle, 55. physically, 56. flip, 57. superb, 58. suppose, 59. construct

60. an____e a chemical compound *v.* to think about in-depth and evaluate to discover essential features or meaning
61. a sl__e of the company's revenue *n.* a flat, often thin, piece of bread, meat, cheese, etc., that has been cut from a larger piece; a wound made by cutting
62. pulse la__r *n.* a device that emits powerful and narrow light that can be used as a tool to cut metal through a process of optical amplification
63. con_____on of a disease *n.* the act or process of becoming smaller or shorter in size, volume, or amount
64. emotional p__p *n.* a piece of wood, metal, etc., placed beneath or against something to support it or keep it in position; a system, institution, or person that gives help or support to someone or something
65. re_____nt by a diagram *v.* to speak, act, or be present on behalf of another person or group; to form or constitute
66. co_____ct a dam *v.* to build or create something; to assemble or combine different parts to form something whole
67. expansion of the un_____se *n.* everything that exists, especially all physical matter, including planets, stars, galaxies, and all other forms of matter and energy
68. nuclear ph_____s *n.* the science of matter and energy and their interactions

ANSWERS: 60. analyze, 61. slice, 62. laser, 63. contraction, 64. prop, 65. represent, 66. construct, 67. universe, 68. physics

69. a large st__k of paper *n.* a pile of something arranged or laid one on top of another; a large tall chimney through which combustion gases and smoke can be evacuated
70. 3D di____m *n.* a simplified illustration of the appearance, structure, or workings of something
71. sq___h a rebellion *v.* to forcefully crush or flatten something; to suppress, stifle, or defeat an idea or opposition forcefully
72. w__z through the book *v.* to move or run quickly and smoothly with a hissing or buzzing sound; to excel or perform skillfully in a particular area; to urinate; (noun) a person who is very clever or skilled at something
73. the characters that re_____nt numbers *v.* to speak, act, or be present on behalf of another person or group; to form or constitute
74. re_____ge his schedule *v.* to change the order or position of things already made; to change the time, date, or place of an event already planned
75. ill_____te a key point *v.* to provide pictures, photographs, diagrams, etc. in a book or something for explanation
76. c__p stick *n.* a crack in the skin, especially on the lips or hands, caused by dryness or cold weather; a man or boy; (verb) to crack, split, or roughen the skin, especially as a result of exposure to cold weather or wind

ANSWERS: 69. stack, 70. diagram, 71. squash, 72. whiz, 73. represent, 74. rearrange, 75. illustrate, 76. chap

77. st____h along the coast *v.* to make or be capable of making anything longer or broader without hurting or breaking
78. with an am_____us eye *adj.* having a great desire to attain achievement, power, or wealth
79. cast a tra_____ion spell *n.* a complete change in form, nature, or appearance of someone or something
80. exp_____nt design *n.* the scientific test conducted to observe what happens and gain new knowledge
81. sq____h a package *v.* to forcefully crush or flatten something; to suppress, stifle, or defeat an idea or opposition forcefully
82. co_____m a transaction *v.* to support or establish the truth or certainty of something previously believed or suspected to be the case
83. abr_____ra formula *n.* a word or incantation used in magical or enchanting spells, often in popular culture and entertainment; anything that is mysterious or unexplainable
84. employment co_____ct *n.* a legally binding agreement between two or more parties, setting out their rights and obligations to each other, typically in writing and enforceable by law
85. an_____on film *n.* the technique of photographing successive drawings or positions of puppets or models to create an illusion of movement when the film is shown as a sequence; enthusiasm and energy in the way you look or behave

ANSWERS: 77. stretch, 78. ambitious, 79. transformation, 80. experiment, 81. squash, 82. confirm, 83. abracadabra, 84. contract, 85. animation

86. p__p stick *n.* a piece of wood, metal, etc., placed beneath or against something to support it or keep it in position; a system, institution, or person that gives help or support to someone or something
87. con_____us improvement *adj.* occurring or existing without a pause or interruption
88. g__e stick *n.* a sticky substance used for joining things together; a bonding agent made from animal or synthetic materials
89. ill_____te a story *v.* to provide pictures, photographs, diagrams, etc. in a book or something for explanation
90. nice c__p *n.* a crack in the skin, especially on the lips or hands, caused by dryness or cold weather; a man or boy; (verb) to crack, split, or roughen the skin, especially as a result of exposure to cold weather or wind
91. apparent con_____ion *n.* the assertion of the opposite of what has been said; opposition; denial
92. the tra_____ion of a tadpole into a frog *n.* a complete change in form, nature, or appearance of someone or something

ANSWERS: 86. prop, 87. continuous, 88. glue, 89. illustrate, 90. chap, 91. contradiction, 92. transformation

Session 3: Fill in the Blanks

1. The earthquake caused a _____ of lumber to crumble noisily.
n. a pile of something arranged or laid one on top of another; a large tall chimney through which combustion gases and smoke can be evacuated

2. The children complained because one _____ of cake was slightly larger than the other.
n. a flat, often thin, piece of bread, meat, cheese, etc., that has been cut from a larger piece; a wound made by cutting

3. Please _____ these files as we start a new project tomorrow.
v. to change the order or position of things already made; to change the time, date, or place of an event already planned

4. The _____ of water is called ice.
adj. hard or firm; characterized by good substantial quality

5. What do you _____ the culprit's motive was?
v. to think that something is likely to be actual or possible

6. She planted a hedge to serve as a natural _____ around her garden.
n. a structure, usually made of wood or metal, that encloses an area, typically for protection or to keep animals or people in or out; a dealer in stolen property

7. The interests of the two countries _____.
v. to hit something violently when moving

8. Their company has been in business for a short time but has _____ goals.
adj. having a great desire to attain achievement, power, or wealth

ANSWERS: 1. stack, 2. slice, 3. rearrange, 4. solid-state, 5. suppose, 6. fence, 7. collide, 8. ambitious

9. The pupils of the eyes _____ in low light.
v. to make something wider, larger, or more open
10. We can calculate the position of the _____ statistically.
n. a small piece of something; a word or piece of a term with grammatical function but little or no significance
11. The carpenter applied _____ to the cabinet joints before nailing them together.
n. a sticky substance used for joining things together; a bonding agent made from animal or synthetic materials
12. A _____ of economic advisers from the United States visited the country to help rebuild its economy.
n. a square or rectangular and flat piece of something that forms a distinct section or component of something; a small group of specialists who discuss particular topics or give their advice or opinion about something
13. Having a _____ healthy physique is essential for a great life.
adv. in a way related to a person's body or appearance rather than their mind
14. The wizard spoke the ancient _____ and the stone door slowly began to open.
n. a word or incantation used in magical or enchanting spells, often in popular culture and entertainment; anything that is mysterious or unexplainable
15. His father's death changed his whole _____ on life.
n. a confident attitude toward something; a particular style of thinking about something
16. I like to _____ my grapes when making homemade wine.
v. to forcefully crush or flatten something; to suppress, stifle, or defeat an idea or opposition forcefully

ANSWERS: 9. dilate, 10. particles, 11. glue, 12. panel, 13. physically, 14. abracadabra, 15. perspective, 16. squash

17. The heavy snow has been _____ since last morning.

adj. occurring or existing without a pause or interruption

18. The product is still in the _____ stage.

adj. relating to or based on new ideas, forms, methods, etc. that have not been tried before, usually to find out what effect they have

19. He studied the _____ of radiation.

n. the science of matter and energy and their interactions

20. His statement was filled with _____ that made it difficult to take seriously.

n. the assertion of the opposite of what has been said; opposition; denial

21. The European Central Bank is Europe's _____ of the Federal Reserve.

n. having the same value, quality, meaning, purpose, etc.

22. The company holds patents on core components of _____ jet printers.

n. a device that emits powerful and narrow light that can be used as a tool to cut metal through a process of optical amplification

23. She _____ her head to the side, indicating she was listening.

v. to incline or bend from a vertical position; (noun) the act of inclining or the state of being inclined or leaning to one side

24. The _____ of the economy has led to job losses.

n. the act or process of becoming smaller or shorter in size, volume, or amount

25. The company's financial records _____ how successful it has been.

v. to provide pictures, photographs, diagrams, etc. in a book or something for explanation

ANSWERS: 17. continuous, 18. experimental, 19. physics, 20. contradictions, 21. equivalent, 22. laser, 23. tilted, 24. contraction, 25. illustrate

26. The _____ of the characters in the movie was so realistic, and it was as if they were there.
- n.* the technique of photographing successive drawings or positions of puppets or models to create an illusion of movement when the film is shown as a sequence; enthusiasm and energy in the way you look or behave
27. He _____ hypotheses that no mathematician has ever imagined before.
- v.* to build or create something; to assemble or combine different parts to form something whole
28. He suffered a painful _____ on his hand after working with chemicals.
- n.* a crack in the skin, especially on the lips or hands, caused by dryness or cold weather; a man or boy; (verb) to crack, split, or roughen the skin, especially as a result of exposure to cold weather or wind
29. The company signed a _____ with the supplier for the delivery of goods.
- n.* a legally binding agreement between two or more parties, setting out their rights and obligations to each other, typically in writing and enforceable by law
30. He is drawing a _____ illustrating how the equipment operates.
- n.* a simplified illustration of the appearance, structure, or workings of something
31. Please write to _____ your reservation.
- v.* to support or establish the truth or certainty of something previously believed or suspected to be the case
32. Understanding unitary _____ of a normal matrix require considerable mathematical sophistication.
- n.* a complete change in form, nature, or appearance of someone or something

ANSWERS: 26. animation, 27. constructs, 28. chap, 29. contract, 30. diagram, 31. confirm, 32. transformations

33. His _____ showed highly positive results.
n. the scientific test conducted to observe what happens and gain new knowledge
34. We need to _____ the aspect of his personality from the part of his competence when making an investment decision.
v. to force, take, or pull apart; mark as different
35. The ladder leaned against the _____ surface of the building.
adj. upright or perpendicular to a horizontal surface or line
36. We have finally lost our last _____.
n. a piece of wood, metal, etc., placed beneath or against something to support it or keep it in position; a system, institution, or person that gives help or support to someone or something
37. Some herds have been observed to _____ hundreds of kilometers.
v. to make or be capable of making anything longer or broader without hurting or breaking
38. I accidentally _____ up the reports and need help to tell which.
v. to mix up or confuse something; to make a mess of something; to create disorder or chaos
39. The teacher attempted to _____ the root cause of our mistake.
v. to think about in-depth and evaluate to discover essential features or meaning
40. _____ vehicles in traffic jams produce a tremendous amount of pollution.
adj. not moving or not capable of being changed

ANSWERS: 33. experiments, 34. separate, 35. vertical, 36. prop, 37. stretch, 38. muddled, 39. analyze, 40. Stationary

41. These articles cite five _____ of climate change.

n. a particular example or single occurrence of something

42. The meal we had at the restaurant was _____ I highly recommend it.

adj. extremely good; excellent in quality; superbly done

43. We elected him to _____ us at the international conference.

v. to speak, act, or be present on behalf of another person or group; to form or constitute

44. He _____ when he heard that he had been accepted into the university.

v. to turn over into a different position quickly; to throw or toss with a light motion

45. The racing car _____ past the grandstands, leaving a trail of dust behind it.

v. to move or run quickly and smoothly with a hissing or buzzing sound; to excel or perform skillfully in a particular area; to urinate; (noun) a person who is very clever or skilled at something

46. The _____ is about 13.8 billion years old.

n. everything that exists, especially all physical matter, including planets, stars, galaxies, and all other forms of matter and energy

ANSWERS: 41. instances, 42. superb;, 43. represent, 44. flipped, 45. whizzed, 46. universe