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Vocabulary Builder Reference from...

Harry Cliff: Have we reached the end of physics? |

TED Talk

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

Advanced Words Only

IMPORTANT

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Session 1: Word List

unquestionably

adv. without a doubt; certainly

synonym: certainly, undoubtedly, without doubt

(1) **unquestionably** bad, (2) **unquestionably** safe

Unquestionably, he was the best candidate for the job.

physicist

n. a scientist who specializes in the field of physics

(1) talented **physicist**, (2) theoretical **physicist**

Einstein was an outstanding and famous **physicist** of the 20th century.

forbid

v. to order somebody not to do something, especially officially; to keep something from happening or arising

synonym: prohibit, ban, outlaw

(1) **forbid** smoking in public areas, (2) **forbid** the use of chemical weapons

God **forbid** you should regret your marriage.

lifeless

adj. without life; dead

synonym: inanimate, inert, motionless

(1) fall **lifeless**, (2) a **lifeless** corpse

The plant had a **lifeless** appearance, indicating that it was not getting enough water.

squirrel

n. a small to medium-sized rodent with a bushy tail, found in almost every part of the world

synonym : rodent, chipmunk, tree-dweller

(1) agile **squirrel**, (2) gray **squirrel**

The **squirrels** in the park were very friendly and came right up to us looking for food.

numb

adj. unable to feel physical sensation and movement; not showing human feeling or sensitivity

synonym : dazed, insensitive, emotionless

(1) **numb** with cold, (2) a **numb** mind

My left arm became **numb**.

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**.

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.

smashing

adj. very successful or impressive; causing something to be broken or destroyed

synonym : great, wonderful, breaking

(1) a **smashing** blow, (2) give **smashing** results

The band's new album was a **smashing** success, reaching the top of the charts.

boson

n. a type of subatomic particle that follows Bose-Einstein statistics, which determine how identical particles with integer spins behave

synonym : photon, gluon, particle

(1) weak **boson**, (2) Higgs **boson**

The search for new **boson** particles is one of the most exciting areas of modern physics.

excite

v. to make someone feel suddenly enthusiastic or eager

synonym : thrill, exhilarate, animate

(1) **excite** the crowd, (2) **excite** rebellion

The news of her promotion **excited** her.

theorist

n. a person who develops or formulates theories about a particular subject, especially in the sciences or social sciences; someone who engages in theoretical thinking or speculation

synonym : philosopher, academic, scholar

(1) scientific **theorist**, (2) conspiracy **theorist**

The feminist **theorist** criticized traditional models of gender roles and argued for greater equality between the sexes.

fine-tuning

n. the act of making small adjustments or changes to improve or optimize the performance, quality, or effectiveness of something

synonym : adjustment, calibration, tweaking

(1) **fine-tuning** process, (2) **fine-tuning** of a financial plan

The **fine-tuning** of the car engine made it run more smoothly.

astronomer

n. a physicist who studies astronomy

synonym : stargazer, cosmologist, astrophysicist

(1) amateur **astronomer**, (2) solar **astronomer**

This question has fascinated solar **astronomers** for decades.

repulsive

adj. causing strong dislike or disgust; offensive, unpleasant, or grotesque; resisting or rejecting contact or influence

synonym : disgusting, revolting, repugnant

(1) **repulsive** smell, (2) **repulsive** act

The politician's rhetoric was so **repulsive** that many people

refused to vote for him.

astonishing

adj. surprising or shocking; difficult to believe

synonym : surprising, shocking, astounding

(1) **astonishing** achievement, (2) make **astonishing** gains
The news of her sudden death was **astonishing** to everyone who knew her.

mind-boggling

adj. extremely surprising or overwhelming and, therefore, difficult to understand or imagine

synonym : overwhelming, amazing, astonishing

(1) a **mind-boggling** puzzle, (2) a **mind-boggling** display
Educating hundreds of thousands of recruits is a **mind-boggling** task.

astronomical

adj. relating to astronomy or the study of celestial bodies and phenomena; very large or immense in scale or magnitude

synonym : huge, vast, enormous

(1) **astronomical** observation, (2) **astronomical** numbers
The cost of the new equipment was **astronomical** and beyond the company's budget.

futile

adj. incapable of producing any useful result; pointless

synonym : useless, worthless, ineffective

(1) **futile** talk, (2) make a **futile** protest

It was **futile** to try and fix the broken vase, as it was too badly damaged.

unify

v. to bring or join something together so that they form a single unit

synonym : bring together, consolidate, merge

(1) **unify** the system, (2) **unify** the party

The people believe that they can **unify** the country.

vibrate

v. to move or cause anything to move fast and in small increments from side to side

synonym: oscillate, convulse, jerk

(1) **vibrate** at a regular frequency, (2) **vibrate** with anger

During the flight, the wings of the plane **vibrate**.

poetic

adj. of or relating to poetry (= a piece of writing that emphasizes the expression of feelings and ideas); using language in an imaginative and expressive way

synonym: literary, verse-like, rhythmic

(1) **poetic** genius, (2) **poetic** justice

The sunset was so beautiful it looked like a **poetic** scene from a movie.

catastrophic

adj. extremely harmful; causing physical or financial destruction

synonym: fatal, disastrous, destructive

(1) victim of **catastrophic** injuries, (2) **catastrophic** climate change

The extinction rate of aquatic animals was **catastrophic**.

disprove

v. to show that something is not true or correct

synonym: refute, discredit, invalidate

(1) **disprove** global warming, (2) **disprove** the conjecture

The researchers were unable to **disprove** the theory.

multiverse

n. a hypothetical space or realm consisting of multiple universes, of which our universe is just one of them

(1) the **multiverse** hypothesis, (2) the concept of the **multiverse**

The various universes within the **multiverse** are sometimes called parallel universes.

barren

adj. unable to produce or sustain growth; lacking fertility; unproductive; lacking interest, excitement, or creativity; empty or desolate

synonym: sterile, infertile, unproductive

(1) **barren** wasteland, (2) **barren** desert

The desert is known for its **barren** terrain with no sign of vegetation.

populate

v. to inhabit or occupy a particular area, region, or environment with a certain number or type of people, animals, or plants; to fill out or complete a form, document, or database with relevant information

synonym: inhabit, occupy, dwell

(1) **populate** the countryside, (2) **populate** the spreadsheet
Deer, squirrels, and birds primarily **populate** the forest.

glum

adj. looking or feeling dejected; characterized by a gloomy or depressed mood

synonym: dismal, melancholy, dreary

(1) **glum** expression, (2) **glum** mood

She looked **glum** after receiving the disappointing news.

earnest

adj. characterized by sincere and severe conviction or effort; showing a deep and a genuine sense of purpose or commitment

synonym: sincere, serious, genuine

(1) **earnest** attempt, (2) **earnest** conversation

He spoke in an **earnest** tone, expressing his genuine concern for the safety of everyone involved.

ingenuity

n. the quality of inventing things or solving problems in clever new ways

synonym: creativity, invention, originality

(1) the infinite **ingenuity** of man, (2) abound in **ingenuity**
Creativity and **ingenuity** are often brought about by extreme concentration.

mobilize

v. to make something ready for action or use; to organize people or resources for a particular purpose

synonym: activate, rally, marshal

(1) **mobilize** cooperation, (2) **mobilize** a stiff joint

The military **mobilized** troops to the border.

Session 2: Spelling

1. a n__b mind *adj.* unable to feel physical sensation and movement; not showing human feeling or sensitivity
2. cat_____hic climate change *adj.* extremely harmful; causing physical or financial destruction
3. the concept of the mul_____se *n.* a hypothetical space or realm consisting of multiple universes, of which our universe is just one of them
4. abound in in_____ty *n.* the quality of inventing things or solving problems in clever new ways
5. agile sq_____el *n.* a small to medium-sized rodent with a bushy tail, found in almost every part of the world
6. Higgs bo__n *n.* a type of subatomic particle that follows Bose-Einstein statistics, which determine how identical particles with integer spins behave
7. ea_____t attempt *adj.* characterized by sincere and severe conviction or effort; showing a deep and a genuine sense of purpose or commitment
8. ast_____cal numbers *adj.* relating to astronomy or the study of celestial bodies and phenomena; very large or immense in scale or magnitude
9. po___c justice *adj.* of or relating to poetry (= a piece of writing that emphasizes the expression of feelings and ideas); using language in an imaginative and expressive way

ANSWERS: 1. numb, 2. catastrophic, 3. multiverse, 4. ingenuity, 5. squirrel, 6. boson, 7. earnest, 8. astronomical, 9. poetic

10. 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
11. the infinite in_____ty of man
n. the quality of inventing things or solving problems in clever new ways
12. co_____e head-on
v. to hit something violently when moving
13. un__y the party
v. to bring or join something together so that they form a single unit
14. make ast_____ng gains
adj. surprising or shocking; difficult to believe
15. unq_____bly safe
adv. without a doubt; certainly
16. re_____ve act
adj. causing strong dislike or disgust; offensive, unpleasant, or grotesque; resisting or rejecting contact or influence
17. ea_____t conversation
adj. characterized by sincere and severe conviction or effort; showing a deep and a genuine sense of purpose or commitment
18. scientific th_____st
n. a person who develops or formulates theories about a particular subject, especially in the sciences or social sciences; someone who engages in theoretical thinking or speculation
19. fu___e talk
adj. incapable of producing any useful result; pointless

ANSWERS: 10. whiz, 11. ingenuity, 12. collide, 13. unify, 14. astonishing, 15. unquestionably, 16. repulsive, 17. earnest, 18. theorist, 19. futile

20. weak bo__n *n.* a type of subatomic particle that follows Bose-Einstein statistics, which determine how identical particles with integer spins behave
21. po___c genius *adj.* of or relating to poetry (= a piece of writing that emphasizes the expression of feelings and ideas); using language in an imaginative and expressive way
22. mo_____ze cooperation *v.* to make something ready for action or use; to organize people or resources for a particular purpose
23. fall li_____ss *adj.* without life; dead
24. di_____ve the conjecture *v.* to show that something is not true or correct
25. ba___n wasteland *adj.* unable to produce or sustain growth; lacking fertility; unproductive; lacking interest, excitement, or creativity; empty or desolate
26. a li_____ss corpse *adj.* without life; dead
27. give sm_____ng results *adj.* very successful or impressive; causing something to be broken or destroyed
28. theoretical ph_____st *n.* a scientist who specializes in the field of physics
29. ast_____ng achievement *adj.* surprising or shocking; difficult to believe
30. a sm_____ng blow *adj.* very successful or impressive; causing something to be broken or destroyed
31. re_____ve smell *adj.* causing strong dislike or disgust; offensive, unpleasant, or grotesque; resisting or rejecting contact or influence

ANSWERS: 20. boson, 21. poetic, 22. mobilize, 23. lifeless, 24. disprove, 25. barren, 26. lifeless, 27. smashing, 28. physicist, 29. astonishing, 30. smashing, 31. repulsive

32. po____te the countryside *v.* to inhabit or occupy a particular area, region, or environment with a certain number or type of people, animals, or plants; to fill out or complete a form, document, or database with relevant information
33. amateur ast_____er *n.* a physicist who studies astronomy
34. victim of cat_____hic injuries *adj.* extremely harmful; causing physical or financial destruction
35. un__y the system *v.* to bring or join something together so that they form a single unit
36. fo____d the use of chemical weapons *v.* to order somebody not to do something, especially officially; to keep something from happening or arising
37. unq_____bly bad *adv.* without a doubt; certainly
38. fin_____ng of a financial plan *n.* the act of making small adjustments or changes to improve or optimize the performance, quality, or effectiveness of something
39. talented ph_____st *n.* a scientist who specializes in the field of physics
40. ex___e the crowd *v.* to make someone feel suddenly enthusiastic or eager
41. ba___n desert *adj.* unable to produce or sustain growth; lacking fertility; unproductive; lacking interest, excitement, or creativity; empty or desolate
42. g__m mood *adj.* looking or feeling dejected; characterized by a gloomy or depressed mood

ANSWERS: 32. populate, 33. astronomer, 34. catastrophic, 35. unify, 36. forbid, 37. unquestionably, 38. fine-tuning, 39. physicist, 40. excite, 41. barren, 42. glum

43. make a fu___e protest *adj.* incapable of producing any useful result; pointless
44. po_____te the spreadsheet *v.* to inhabit or occupy a particular area, region, or environment with a certain number or type of people, animals, or plants; to fill out or complete a form, document, or database with relevant information
45. ast_____cal observation *adj.* relating to astronomy or the study of celestial bodies and phenomena; very large or immense in scale or magnitude
46. conspiracy th_____st *n.* a person who develops or formulates theories about a particular subject, especially in the sciences or social sciences; someone who engages in theoretical thinking or speculation
47. n__b with cold *adj.* unable to feel physical sensation and movement; not showing human feeling or sensitivity
48. the mul_____se hypothesis *n.* a hypothetical space or realm consisting of multiple universes, of which our universe is just one of them
49. a min_____ing puzzle *adj.* extremely surprising or overwhelming and, therefore, difficult to understand or imagine
50. gray sq_____el *n.* a small to medium-sized rodent with a bushy tail, found in almost every part of the world
51. vi_____e with anger *v.* to move or cause anything to move fast and in small increments from side to side

ANSWERS: 43. futile, 44. populate, 45. astronomical, 46. theorist, 47. numb, 48. multiverse, 49. mind-boggling, 50. squirrel, 51. vibrate

52. di____ve global warming *v.* to show that something is not true or correct
53. 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
54. co____e in midair *v.* to hit something violently when moving
55. ex____e rebellion *v.* to make someone feel suddenly enthusiastic or eager
56. mo____ze a stiff joint *v.* to make something ready for action or use; to organize people or resources for a particular purpose
57. a min_____ing display *adj.* extremely surprising or overwhelming and, therefore, difficult to understand or imagine
58. solar ast_____er *n.* a physicist who studies astronomy
59. vi____e at a regular frequency *v.* to move or cause anything to move fast and in small increments from side to side
60. fo____d smoking in public areas *v.* to order somebody not to do something, especially officially; to keep something from happening or arising
61. g__m expression *adj.* looking or feeling dejected; characterized by a gloomy or depressed mood
62. fin_____ng process *n.* the act of making small adjustments or changes to improve or optimize the performance, quality, or effectiveness of something

ANSWERS: 52. disprove, 53. whiz, 54. collide, 55. excite, 56. mobilize, 57. mind-boggling, 58. astronomer, 59. vibrate, 60. forbid, 61. glum, 62. fine-tuning

ANSWERS:

Session 3: Fill in the Blanks

1. 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

2. The feminist _____ criticized traditional models of gender roles and argued for greater equality between the sexes.
 - n. a person who develops or formulates theories about a particular subject, especially in the sciences or social sciences; someone who engages in theoretical thinking or speculation

3. He spoke in an _____ tone, expressing his genuine concern for the safety of everyone involved.
 - adj. characterized by sincere and severe conviction or effort; showing a deep and a genuine sense of purpose or commitment

4. The people believe that they can _____ the country.
 - v. to bring or join something together so that they form a single unit

5. This question has fascinated solar _____ for decades.
 - n. a physicist who studies astronomy

6. The news of her sudden death was _____ to everyone who knew her.
 - adj. surprising or shocking; difficult to believe

7. Deer, squirrels, and birds primarily _____ the forest.
 - v. to inhabit or occupy a particular area, region, or environment with a certain number or type of people, animals, or plants; to fill out or complete a form, document, or database with relevant information

ANSWERS: 1. whizzed, 2. theorist, 3. earnest, 4. unify, 5. astronomers, 6. astonishing, 7. populate

8. The sunset was so beautiful it looked like a _____ scene from a movie.
adj. of or relating to poetry (= a piece of writing that emphasizes the expression of feelings and ideas); using language in an imaginative and expressive way
9. It was _____ to try and fix the broken vase, as it was too badly damaged.
adj. incapable of producing any useful result; pointless
10. God _____ you should regret your marriage.
v. to order somebody not to do something, especially officially; to keep something from happening or arising
11. The search for new _____ particles is one of the most exciting areas of modern physics.
n. a type of subatomic particle that follows Bose-Einstein statistics, which determine how identical particles with integer spins behave
12. The _____ in the park were very friendly and came right up to us looking for food.
n. a small to medium-sized rodent with a bushy tail, found in almost every part of the world
13. Educating hundreds of thousands of recruits is a _____ task.
adj. extremely surprising or overwhelming and, therefore, difficult to understand or imagine
14. The _____ of the car engine made it run more smoothly.
n. the act of making small adjustments or changes to improve or optimize the performance, quality, or effectiveness of something
15. The news of her promotion _____ her.
v. to make someone feel suddenly enthusiastic or eager

ANSWERS: 8. poetic, 9. futile, 10. forbid, 11. boson, 12. squirrels, 13. mind-boggling, 14. fine-tuning, 15. excited

16. The interests of the two countries _____.

v. to hit something violently when moving

17. She looked _____ after receiving the disappointing news.

adj. looking or feeling dejected; characterized by a gloomy or depressed mood

18. The band's new album was a _____ success, reaching the top of the charts.

adj. very successful or impressive; causing something to be broken or destroyed

19. The cost of the new equipment was _____ and beyond the company's budget.

adj. relating to astronomy or the study of celestial bodies and phenomena; very large or immense in scale or magnitude

20. The politician's rhetoric was so _____ that many people refused to vote for him.

adj. causing strong dislike or disgust; offensive, unpleasant, or grotesque; resisting or rejecting contact or influence

21. The extinction rate of aquatic animals was _____.

adj. extremely harmful; causing physical or financial destruction

22. Creativity and _____ are often brought about by extreme concentration.

n. the quality of inventing things or solving problems in clever new ways

23. My left arm became _____.

adj. unable to feel physical sensation and movement; not showing human feeling or sensitivity

ANSWERS: 16. collide, 17. glum, 18. smashing, 19. astronomical, 20. repulsive, 21. catastrophic, 22. ingenuity, 23. numb

24. The various universes within the _____ are sometimes called parallel universes.
- n.* a hypothetical space or realm consisting of multiple universes, of which our universe is just one of them
25. The military _____ troops to the border.
- v.* to make something ready for action or use; to organize people or resources for a particular purpose
26. During the flight, the wings of the plane _____.
- v.* to move or cause anything to move fast and in small increments from side to side
27. The researchers were unable to _____ the theory.
- v.* to show that something is not true or correct
28. Einstein was an outstanding and famous _____ of the 20th century.
- n.* a scientist who specializes in the field of physics
29. _____ he was the best candidate for the job.
- adv.* without a doubt; certainly
30. The plant had a _____ appearance, indicating that it was not getting enough water.
- adj.* without life; dead
31. The desert is known for its _____ terrain with no sign of vegetation.
- adj.* unable to produce or sustain growth; lacking fertility; unproductive; lacking interest, excitement, or creativity; empty or desolate

ANSWERS: 24. multiverse, 25. mobilized, 26. vibrate, 27. disprove, 28. physicist, 29. Unquestionably, 30. lifeless, 31. barren

ANSWERS: