

# Englist.me



## Vocabulary Builder Reference from...

*Venus Keus: Three ways the universe could end |*

*TED Talk*

[https://www.ted.com/talks/venus\\_keus\\_three\\_ways\\_the\\_universe\\_could\\_end](https://www.ted.com/talks/venus_keus_three_ways_the_universe_could_end)

### Advanced Words Only

#### IMPORTANT

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## Session 1: Word List

### cosmology

*n.* the scientific study of the nature and origin of the universe

*synonym* : cosmogony

(1) physical **cosmology**, (2) modern **cosmology**

**Cosmology** evolved from people's philosophical questions about the natural world.

### crunch

*n.* a loud, crackling noise made by something being crushed or broken; a difficult or critical situation

*synonym* : crushing, snapping, crisis

(1) financial **crunch**, (2) a gas **crunch**

The **crunch** of the leaves underfoot was heard as they walked through the park.

### 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.

### determinant

*n.* a factor, circumstance, or condition that contributes to the shaping, influencing, or determining of a particular

outcome or result

*synonym* : cause, factor, element

(1) environmental **determinant**, (2) a **determinant** of crop yields

One **determinant** of success is having a positive attitude and a strong work ethic.

## elasticity

*n.* the ability of a material to return to its original shape after being stretched or compressed; flexibility; adaptability to change

*synonym* : flexibility, pliability, suppleness

(1) **elasticity** coefficient, (2) skin **elasticity**

The **elasticity** of the rubber band allowed it to stretch without breaking.

## dissolve

*v.* to be or cause to be absorbed by a liquid to form a part of the solution; to close down or dismiss

*synonym* : disband, disappear, liquefy

(1) **dissolve** the sugar, (2) officially **dissolved** the marriage

The political party **dissolved** after much internal fighting.

## emit

*v.* to give off or send out something such as light, heat, sound, gas, etc.

*synonym* : give off, radiate, expel

(1) **emit** a gamma ray, (2) **emit** air pollution

During the unloading, the container box **emits** a clicking sound.

## redshift

*n.* a concept in physics, particularly in the field of cosmology, that describes how light or other electromagnetic radiation from an object increases in wavelength, or shifts to the red end of the spectrum, as it moves away from an observer, which is a key principle behind the Big Bang Theory and the expansion of the universe

*synonym* : doppler shift

(1) **redshift** effect, (2) Doppler **redshift**

The **redshift** in the galaxy's light suggested it was moving away from us.

### emanate

v. to emit, send out something; to express a quality or feeling

*synonym*: radiate, exude, give off

(1) **emanate** light, (2) **emanate** happiness

The fragrance of flowers **emanated** from the garden.

### gravitational

*adj.* relating to or caused by gravity (= the force that attracts objects towards one another)

*synonym*: weighty, heavy, earthbound

(1) **gravitational** energy, (2) **gravitational** waves

The **gravitational** force of the black hole was so strong that nothing, not even light, could escape.

### clump

*n.* a small group of bushes, trees, flowers, people, etc.

*synonym*: cluster, bunch, bundle

(1) **clump** of bacteria, (2) a **clump** of trees

I heard the **clump** of his boots in the hallway.

### hurtle

v. to move quickly and forcefully, especially in an uncontrolled or dangerous way

*synonym*: throw, hurl, fling

(1) **hurtle** into a tunnel, (2) **hurtle** through life

The car **hurtled** down the highway at breakneck speed.

### 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**.

### plummet

v. to fall or drop suddenly and steeply; to decline rapidly or sharply

*synonym*: drop, plunge, fall

(1) **plummeting** sales, (2) **plummet** against other major

currencies

The stock prices have **plummeted** in the last hour, causing concern for investors.

## compress

v. to press or squeeze together to make something take up less space

*synonym*: condense, constrict, squeeze

(1) **compress** the chest, (2) **compress** gas

She **compressed** the files into a single ZIP archive to save space on her computer.

## precede

v. to happen or go before something or someone in time or space

*synonym*: lead, forego, antecede

(1) men often **precede** women when walking, (2) **precede** any discussion

Agricultural development generally **precedes** economic growth.

## explode

v. to burst or break open violently and noisily; to cause something to burst or break open

*synonym*: detonate, blast, rupture

(1) **explode** in anger, (2) **explode** in popularity

The old building **exploded** in a fiery inferno.

## mitten

n. a glove with a separate sheath for the thumb but a combined sheath for the four fingers, typically warmer than a traditional glove

*synonym*: glove, gauntlet, handwear

(1) fingerless **mitten**, (2) knitted **mitten**

My mom knit me a pair of warm woolen **mittens** for the winter.

## Session 2: Spelling

- |  |      |  |
|--|------|--|
| 1. co_____e head-on                      | v.   | to hit something violently when moving   |
| 2. men often pr_____e women when walking | v.   | to happen or go before something or someone in time or space   |
| 3. gra_____nal waves                     | adj. | relating to or caused by gravity (= the force that attracts objects towards one another)   |
| 4. Doppler re_____ft                     | n.   | a concept in physics, particularly in the field of cosmology, that describes how light or other electromagnetic radiation from an object increases in wavelength, or shifts to the red end of the spectrum, as it moves away from an observer, which is a key principle behind the Big Bang Theory and the expansion of the universe |
| 5. ela_____ty coefficient                | n.   | the ability of a material to return to its original shape after being stretched or compressed; flexibility; adaptability to change   |
| 6. em_____e happiness                    | v.   | to emit, send out something; to express a quality or feeling   |
| 7. co_____ss gas                         | v.   | to press or squeeze together to make something take up less space  |
| 8. e__t air pollution                    | v.   | to give off or send out something such as light, heat, sound, gas, etc.  |
| 9. physical co_____gy                    | n.   | the scientific study of the nature and origin of the universe  |

ANSWERS: 1. collide, 2. precede, 3. gravitational, 4. redshift, 5. elasticity, 6. emanate, 7. compress, 8. emit, 9. cosmology

10. e\_\_t a gamma ray *v.* to give off or send out something such as light, heat, sound, gas, etc.
11. gra\_\_\_\_\_nal energy *adj.* relating to or caused by gravity (= the force that attracts objects towards one another)
12. financial cr\_\_\_h *n.* a loud, crackling noise made by something being crushed or broken; a difficult or critical situation
13. hu\_\_\_e into a tunnel *v.* to move quickly and forcefully, especially in an uncontrolled or dangerous way
14. pr\_\_\_\_\_e any discussion *v.* to happen or go before something or someone in time or space
15. re\_\_\_\_\_ve act *adj.* causing strong dislike or disgust; offensive, unpleasant, or grotesque; resisting or rejecting contact or influence
16. pl\_\_\_\_\_t against other major currencies *v.* to fall or drop suddenly and steeply; to decline rapidly or sharply
17. knitted mi\_\_\_n *n.* a glove with a separate sheath for the thumb but a combined sheath for the four fingers, typically warmer than a traditional glove
18. co\_\_\_\_\_ss the chest *v.* to press or squeeze together to make something take up less space
19. modern co\_\_\_\_\_gy *n.* the scientific study of the nature and origin of the universe
20. a det\_\_\_\_\_nt of crop yields *n.* a factor, circumstance, or condition that contributes to the shaping, influencing, or determining of a particular outcome or result

ANSWERS: 10. emit, 11. gravitational, 12. crunch, 13. hurtle, 14. precede, 15. repulsive, 16. plummet, 17. mitten, 18. compress, 19. cosmology, 20. determinant

21. a gas cr\_\_\_h *n.* a loud, crackling noise made by something being crushed or broken; a difficult or critical situation
22. di\_\_\_\_\_ve the sugar *v.* to be or cause to be absorbed by a liquid to form a part of the solution; to close down or dismiss
23. a cl\_\_p of trees *n.* a small group of bushes, trees, flowers, people, etc.
24. ex\_\_\_\_\_e in anger *v.* to burst or break open violently and noisily; to cause something to burst or break open
25. co\_\_\_\_\_e in midair *v.* to hit something violently when moving
26. skin ela\_\_\_\_\_ty *n.* the ability of a material to return to its original shape after being stretched or compressed; flexibility; adaptability to change
27. re\_\_\_\_\_ft effect *n.* a concept in physics, particularly in the field of cosmology, that describes how light or other electromagnetic radiation from an object increases in wavelength, or shifts to the red end of the spectrum, as it moves away from an observer, which is a key principle behind the Big Bang Theory and the expansion of the universe
28. pl\_\_\_\_\_ting sales *v.* to fall or drop suddenly and steeply; to decline rapidly or sharply
29. hu\_\_\_e through life *v.* to move quickly and forcefully, especially in an uncontrolled or dangerous way

ANSWERS: 21. crunch, 22. dissolve, 23. clump, 24. explode, 25. collide, 26. elasticity, 27. redshift, 28. plummet, 29. hurtle

30. fingerless mi\_\_\_n *n.* a glove with a separate sheath for the thumb but a combined sheath for the four fingers, typically warmer than a traditional glove
31. em\_\_\_\_\_e light *v.* to emit, send out something; to express a quality or feeling
32. cl\_\_p of bacteria *n.* a small group of bushes, trees, flowers, people, etc.
33. environmental det\_\_\_\_\_nt *n.* a factor, circumstance, or condition that contributes to the shaping, influencing, or determining of a particular outcome or result
34. ex\_\_\_\_\_e in popularity *v.* to burst or break open violently and noisily; to cause something to burst or break open
35. re\_\_\_\_\_ve smell *adj.* causing strong dislike or disgust; offensive, unpleasant, or grotesque; resisting or rejecting contact or influence
36. officially di\_\_\_\_\_ved the marriage *v.* to be or cause to be absorbed by a liquid to form a part of the solution; to close down or dismiss

ANSWERS: 30. mitten, 31. emanate, 32. clump, 33. determinant, 34. explode, 35. repulsive, 36. dissolve



## Session 3: Fill in the Blanks

1. The stock prices have \_\_\_\_\_ in the last hour, causing concern for investors.  
*v.* to fall or drop suddenly and steeply; to decline rapidly or sharply
  
2. My mom knit me a pair of warm woolen \_\_\_\_\_ for the winter.  
*n.* a glove with a separate sheath for the thumb but a combined sheath for the four fingers, typically warmer than a traditional glove
  
3. She \_\_\_\_\_ the files into a single ZIP archive to save space on her computer.  
*v.* to press or squeeze together to make something take up less space
  
4. 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
  
5. The \_\_\_\_\_ force of the black hole was so strong that nothing, not even light, could escape.  
*adj.* relating to or caused by gravity (= the force that attracts objects towards one another)
  
6. The \_\_\_\_\_ of the leaves underfoot was heard as they walked through the park.  
*n.* a loud, crackling noise made by something being crushed or broken; a difficult or critical situation
  
7. The \_\_\_\_\_ of the rubber band allowed it to stretch without breaking.  
*n.* the ability of a material to return to its original shape after being stretched or compressed; flexibility; adaptability to change

ANSWERS: 1. plummeted, 2. mittens, 3. compressed, 4. repulsive, 5. gravitational, 6. crunch, 7. elasticity

8. The car \_\_\_\_\_ down the highway at breakneck speed.
- v. to move quickly and forcefully, especially in an uncontrolled or dangerous way
9. The \_\_\_\_\_ in the galaxy's light suggested it was moving away from us.
- n. a concept in physics, particularly in the field of cosmology, that describes how light or other electromagnetic radiation from an object increases in wavelength, or shifts to the red end of the spectrum, as it moves away from an observer, which is a key principle behind the Big Bang Theory and the expansion of the universe
10. During the unloading, the container box \_\_\_\_\_ a clicking sound.
- v. to give off or send out something such as light, heat, sound, gas, etc.
11. The political party \_\_\_\_\_ after much internal fighting.
- v. to be or cause to be absorbed by a liquid to form a part of the solution; to close down or dismiss
12. I heard the \_\_\_\_\_ of his boots in the hallway.
- n. a small group of bushes, trees, flowers, people, etc.
13. The fragrance of flowers \_\_\_\_\_ from the garden.
- v. to emit, send out something; to express a quality or feeling
14. Agricultural development generally \_\_\_\_\_ economic growth.
- v. to happen or go before something or someone in time or space
15. One \_\_\_\_\_ of success is having a positive attitude and a strong work ethic.
- n. a factor, circumstance, or condition that contributes to the shaping, influencing, or determining of a particular outcome or result

ANSWERS: 8. hurtled, 9. redshift, 10. emits, 11. dissolved, 12. clump, 13. emanated, 14. precedes, 15. determinant

16. The interests of the two countries \_\_\_\_\_.

*v.* to hit something violently when moving

17. The old building \_\_\_\_\_ in a fiery inferno.

*v.* to burst or break open violently and noisily; to cause something to burst or break open

18. \_\_\_\_\_ evolved from people's philosophical questions about the natural world.

*n.* the scientific study of the nature and origin of the universe

ANSWERS: 16. collide, 17. exploded, 18. Cosmology