

# Englist.me



## Vocabulary Builder Reference from...

*Eric Hinterman: How going to Mars improves life on Earth | TED Talk*

[https://www.ted.com/talks/eric\\_hinterman\\_how\\_going\\_to\\_mars\\_improves\\_life\\_on\\_earth](https://www.ted.com/talks/eric_hinterman_how_going_to_mars_improves_life_on_earth)

### Advanced Words Only

#### IMPORTANT

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## Session 1: Word List

### cosmos

*n.* another name for the universe, mainly used when it is thought of as an ordered system

*synonym* : universe, macrocosm

(1) exploration of **cosmos**, (2) origin of the **cosmos**

Supercomputers enable scientists to create computational models of the **cosmos**.

### deserted

*adj.* empty or abandoned; lacking inhabitants or visitors; left alone or left behind

*synonym* : abandoned, empty, vacated

(1) **deserted** city, (2) **deserted** island

The **deserted** street was quiet and eerie, with no signs of life.

### deplete

*v.* to reduce something, especially supplies of energy, money, etc., by a large amount; to use up resources or materials

*synonym* : exhaust, consume, use up

(1) **deplete** customer confidence, (2) **deplete** glycogen stores

If we continue to **deplete** the Earth's natural resources, we will cause severe damage to the environment.

## rover

*n.* a vehicle designed to travel over rough terrain, especially on the surface of a planet or moon

*synonym* : vehicle, robot, explorer

(1) **rover** mission, (2) lunar **rover**

The **rover** on Mars is gathering data on the planet's surface and sending it back to Earth.

## perseverance

*n.* steadfastness in doing something despite difficulty or delay in achieving success

*synonym* : persistence, tenacity, determination

(1) unwavering **perseverance**, (2) dogged **perseverance**

Despite facing numerous setbacks and obstacles, his **perseverance** and determination led him to success.

## acronym

*n.* a word formed from the first letter of each word in a phrase, such as NASA (National Aeronautics and Space Administration) or AIDS (Acquired Immune Deficiency Syndrome)

*synonym* : abbreviation, initialism, shortcut

(1) **acronym** definition, (2) use an **acronym**

RADAR is an **acronym** for radio detection and ranging.

## photosynthesis

*n.* the process through which plants and other organisms transform light energy into chemical energy, which is then released through cellular respiration to power the organism's activities.

(1) oxygenic **photosynthesis**, (2) process of **photosynthesis**

In **photosynthesis**, plants use carbon dioxide to feed themselves.

## propellant

*n.* a substance that provides the force to propel (= to cause something to move forwards) something, such as a rocket or spray can

*synonym* : fuel, driving force, impelling agent

(1) **propellant** mixture, (2) **propellant** tank

The **propellant** in the rocket provided the force needed to

reach outer space.

## volcano

*n.* a mountain or hill, typically conical, having a crater or vent through which lava, rock fragments, hot vapor, and gas are or have been erupted from the earth's crust.

*synonym*: mount, peak, crater

(1) **volcano** alert level, (2) active **volcano**

The island was formed by a **volcano** millions of years ago.

## erupt

*v.* (of a volcano) to become active and eject rocks, smoke, etc.; to start abruptly and violently

*synonym*: eject, emit, burst

(1) **erupt** in anger, (2) **erupt** into tears

Battles between whites and blacks **erupted** immediately.

## asteroid

*n.* a small rocky body orbiting the sun, typically in the region between Mars and Jupiter

*synonym*: minor planet, planetoid, rocky planetesimal

(1) **asteroid** mining, (2) **asteroid** explorer

Scientists are studying the composition and origins of the **asteroid** belt to understand the early solar system better.

## chuck

*v.* to throw something carelessly or casually; to get rid of something or someone

*synonym*: toss, throw, discard

(1) **chuck** the ball across the yard, (2) **chuck** my job

I will **chuck** these old shoes in the trash and buy a new pair.

## far-reaching

*adj.* having a wide or significant impact or influence

*synonym*: extensive, widespread, broad

(1) achieve **far-reaching** reform, (2) **far-reaching** consequences

The **far-reaching** effects of the policy change are still being felt.

## smartphone

*n.* a mobile phone that functions as a computer and connects to the Internet

(1) **smartphone** app developer, (2) **smartphone** addict  
Internet traffic volumes have increased significantly with the advent of **smartphones**.

## firefight

*n.* a struggle to extinguish a fire; a military engagement in which small arms and other weapons are used

*synonym*: battle, conflict, fight

(1) killed in a **firefight**, (2) turn into a **firefight**

The platoon experienced a full-scale **firefight**.

## purify

*v.* to remove harmful substances from something and increase the concentration of it

*synonym*: refine, filter, clarify

(1) **purify** hydrogen gas, (2) **purify** the blood

The equipment is frequently used to **purify** and distribute drinking water.

## spacefaring

*n.* the act or practice of traveling or exploring outer space, typically to advance scientific knowledge, develop new technologies, or establish a human presence beyond Earth; the ability to travel and explore space

*synonym*: space navigation, space exploration, spaceflight

(1) **spacefaring** nation, (2) the future of **spacefaring** exploration

**Spacefaring** technology has allowed us to explore the vast expanse of the universe.

## livable

*adj.* capable of being lived in comfortably and sustainably; suitable for human habitation

*synonym*: habitable, comfortable, pleasant

(1) **livable** city, (2) **livable** housing

Finding a safe and **livable** neighborhood is important when looking for a new place to live.

## improvisation

*n.* the act of making something up on the spot or creating or performing something without preparation

*synonym*: spontaneity, ad-lib, extemporization

(1) **improvisation** on stage, (2) jazz **improvisation**  
He created a beautiful piece of music using only **improvisation**.

## birthplace

*n.* the house, town, etc., where someone was born  
*synonym*: hometown, native place, origin

(1) ancestral **birthplaces**, (2) **birthplace** of modern soccer  
The **birthplace** of civilization is a topic of much debate among historians.

## pandemic

*n.* an outbreak of a disease that affects many people over a very wide area

*synonym*: outbreak

(1) flu **pandemic**, (2) global **pandemic**

They fear a **pandemic** of a new type of virus.

## interstellar

*adj.* relating to or located in the space between stars

*synonym*: galactic, cosmic, intergalactic

(1) **interstellar** communication, (2) **interstellar** space

The **interstellar** medium comprises gas, dust, and cosmic rays that fill the space between stars.

## canyon

*n.* a large deep valley with very steep sides of rock and usually formed by a river

*synonym*: gorge, valley, ravine

(1) twisty **canyon** road, (2) **canyon** of skyscrapers

The Grand **Canyon** has an awe-inspiring sight.

## titanic

*adj.* of or having a great size, power, or influence; of or relating to Titanium (= a light, strong grey, lustrous, corrosion-resistant metallic element)

*synonym*: colossal, massive, immense

(1) **titanic** battle, (2) **titanic** compound

The **titanic** ship sank on its maiden voyage.

## Jovian

*adj.* relating to Jupiter or its characteristics

*synonym*: Jupiter, giant planet

(1) **Jovian** satellites, (2) **Jovian** planet

The **Jovian** moon Europa is believed to have an ocean beneath its icy surface.

## Session 2: Spelling

1. de\_\_\_\_ed island *adj.* empty or abandoned; lacking inhabitants or visitors; left alone or left behind
2. flu pa\_\_\_\_ic *n.* an outbreak of a disease that affects many people over a very wide area
3. exploration of co\_\_\_\_s *n.* another name for the universe, mainly used when it is thought of as an ordered system
4. vo\_\_\_\_o alert level *n.* a mountain or hill, typically conical, having a crater or vent through which lava, rock fragments, hot vapor, and gas are or have been erupted from the earth's crust.
5. pu\_\_\_\_y the blood *v.* to remove harmful substances from something and increase the concentration of it
6. as\_\_\_\_id explorer *n.* a small rocky body orbiting the sun, typically in the region between Mars and Jupiter
7. pro\_\_\_\_nt tank *n.* a substance that provides the force to propel (= to cause something to move forwards) something, such as a rocket or spray can
8. li\_\_\_\_e city *adj.* capable of being lived in comfortably and sustainably; suitable for human habitation
9. er\_\_t into tears *v.* (of a volcano) to become active and eject rocks, smoke, etc.; to start abruptly and violently

ANSWERS: 1. deserted, 2. pandemic, 3. cosmos, 4. volcano, 5. purify, 6. asteroid, 7. propellant, 8. livable, 9. erupt

- |  |   |
|--|---|
| 10. bir_____ce of modern soccer          | <i>n.</i> the house, town, etc., where someone was born   |
| 11. achieve far_____ing reform           | <i>adj.</i> having a wide or significant impact or influence  |
| 12. ch__k my job                         | <i>v.</i> to throw something carelessly or casually; to get rid of something or someone   |
| 13. dogged per_____nce                   | <i>n.</i> steadfastness in doing something despite difficulty or delay in achieving success   |
| 14. global pa_____ic                     | <i>n.</i> an outbreak of a disease that affects many people over a very wide area   |
| 15. ch__k the ball across the yard       | <i>v.</i> to throw something carelessly or casually; to get rid of something or someone   |
| 16. oxygenic pho_____sis                 | <i>n.</i> the process through which plants and other organisms transform light energy into chemical energy, which is then released through cellular respiration to power the organism's activities.                           |
| 17. int_____lar space                    | <i>adj.</i> relating to or located in the space between stars   |
| 18. the future of spa_____ng exploration | <i>n.</i> the act or practice of traveling or exploring outer space, typically to advance scientific knowledge, develop new technologies, or establish a human presence beyond Earth; the ability to travel and explore space |
| 19. de_____e customer confidence         | <i>v.</i> to reduce something, especially supplies of energy, money, etc., by a large amount; to use up resources or materials  |

ANSWERS: 10. birthplace, 11. far-reaching, 12. chuck, 13. perseverance, 14. pandemic, 15. chuck, 16. photosynthesis, 17. interstellar, 18. spacefaring, 19. deplete



20. twisty ca\_\_\_n road *n.* a large deep valley with very steep sides of rock and usually formed by a river
21. ac\_\_\_\_m definition *n.* a word formed from the first letter of each word in a phrase, such as NASA (National Aeronautics and Space Administration) or AIDS (Acquired Immune Deficiency Syndrome)
22. er\_\_t in anger *v.* (of a volcano) to become active and eject rocks, smoke, etc.; to start abruptly and violently
23. ti\_\_\_\_c battle *adj.* of or having a great size, power, or influence; of or relating to Titanium (= a light, strong grey, lustrous, corrosion-resistant metallic element)
24. active vo\_\_\_\_o *n.* a mountain or hill, typically conical, having a crater or vent through which lava, rock fragments, hot vapor, and gas are or have been erupted from the earth's crust.
25. unwavering per\_\_\_\_nce *n.* steadfastness in doing something despite difficulty or delay in achieving success
26. li\_\_\_\_e housing *adj.* capable of being lived in comfortably and sustainably; suitable for human habitation
27. ro\_\_r mission *n.* a vehicle designed to travel over rough terrain, especially on the surface of a planet or moon
28. sma\_\_\_\_ne addict *n.* a mobile phone that functions as a computer and connects to the Internet

ANSWERS: 20. canyon, 21. acronym, 22. erupt, 23. titanic, 24. volcano, 25. perseverance, 26. livable, 27. rover, 28. smartphone

29. imp\_\_\_\_\_ion on stage *n.* the act of making something up on the spot or creating or performing something without preparation
30. use an ac\_\_\_\_\_m *n.* a word formed from the first letter of each word in a phrase, such as NASA (National Aeronautics and Space Administration) or AIDS (Acquired Immune Deficiency Syndrome)
31. pro\_\_\_\_\_nt mixture *n.* a substance that provides the force to propel (= to cause something to move forwards) something, such as a rocket or spray can
32. Jo\_\_\_\_n satellites *adj.* relating to Jupiter or its characteristics
33. de\_\_\_\_\_e glycogen stores *v.* to reduce something, especially supplies of energy, money, etc., by a large amount; to use up resources or materials
34. pu\_\_\_\_y hydrogen gas *v.* to remove harmful substances from something and increase the concentration of it
35. Jo\_\_\_\_n planet *adj.* relating to Jupiter or its characteristics
36. origin of the co\_\_\_\_s *n.* another name for the universe, mainly used when it is thought of as an ordered system
37. spa\_\_\_\_\_ng nation *n.* the act or practice of traveling or exploring outer space, typically to advance scientific knowledge, develop new technologies, or establish a human presence beyond Earth; the ability to travel and explore space

ANSWERS: 29. improvisation, 30. acronym, 31. propellant, 32. Jovian, 33. deplete, 34. purify, 35. Jovian, 36. cosmos, 37. spacefaring

38. killed in a fi\_\_\_\_\_ht *n.* a struggle to extinguish a fire; a military engagement in which small arms and other weapons are used
39. de\_\_\_\_\_ed city *adj.* empty or abandoned; lacking inhabitants or visitors; left alone or left behind
40. int\_\_\_\_\_lar communication *adj.* relating to or located in the space between stars
41. turn into a fi\_\_\_\_\_ht *n.* a struggle to extinguish a fire; a military engagement in which small arms and other weapons are used
42. ca\_\_\_\_n of skyscrapers *n.* a large deep valley with very steep sides of rock and usually formed by a river
43. sma\_\_\_\_\_ne app developer *n.* a mobile phone that functions as a computer and connects to the Internet
44. far\_\_\_\_\_ing consequences *adj.* having a wide or significant impact or influence
45. as\_\_\_\_\_id mining *n.* a small rocky body orbiting the sun, typically in the region between Mars and Jupiter
46. process of pho\_\_\_\_\_sis *n.* the process through which plants and other organisms transform light energy into chemical energy, which is then released through cellular respiration to power the organism's activities.
47. jazz imp\_\_\_\_\_ion *n.* the act of making something up on the spot or creating or performing something without preparation

ANSWERS: 38. firefight, 39. deserted, 40. interstellar, 41. firefight, 42. canyon, 43. smartphone, 44. far-reaching, 45. asteroid, 46. photosynthesis, 47. improvisation

48. lunar ro\_\_r *n.* a vehicle designed to travel over rough terrain, especially on the surface of a planet or moon
49. ancestral bir\_\_\_\_\_ces *n.* the house, town, etc., where someone was born
50. ti\_\_\_\_\_c compound *adj.* of or having a great size, power, or influence; of or relating to Titanium (= a light, strong grey, lustrous, corrosion-resistant metallic element)

ANSWERS: 48. rover, 49. birthplace, 50. titanic

## Session 3: Fill in the Blanks

1. If we continue to \_\_\_\_\_ the Earth's natural resources, we will cause severe damage to the environment.
  - v. to reduce something, especially supplies of energy, money, etc., by a large amount; to use up resources or materials
  
2. He created a beautiful piece of music using only \_\_\_\_\_.
  - n. the act of making something up on the spot or creating or performing something without preparation
  
3. The island was formed by a \_\_\_\_\_ millions of years ago.
  - n. a mountain or hill, typically conical, having a crater or vent through which lava, rock fragments, hot vapor, and gas are or have been erupted from the earth's crust.
  
4. The \_\_\_\_\_ on Mars is gathering data on the planet's surface and sending it back to Earth.
  - n. a vehicle designed to travel over rough terrain, especially on the surface of a planet or moon
  
5. \_\_\_\_\_ technology has allowed us to explore the vast expanse of the universe.
  - n. the act or practice of traveling or exploring outer space, typically to advance scientific knowledge, develop new technologies, or establish a human presence beyond Earth; the ability to travel and explore space
  
6. The platoon experienced a full-scale \_\_\_\_\_.
  - n. a struggle to extinguish a fire; a military engagement in which small arms and other weapons are used

ANSWERS: 1. deplete, 2. improvisation, 3. volcano, 4. rover, 5. Spacefaring, 6. firefight

7. The \_\_\_\_\_ street was quiet and eerie, with no signs of life.  
*adj.* empty or abandoned; lacking inhabitants or visitors; left alone or left behind
8. The \_\_\_\_\_ in the rocket provided the force needed to reach outer space.  
*n.* a substance that provides the force to propel (= to cause something to move forwards) something, such as a rocket or spray can
9. RADAR is an \_\_\_\_\_ for radio detection and ranging.  
*n.* a word formed from the first letter of each word in a phrase, such as NASA (National Aeronautics and Space Administration) or AIDS (Acquired Immune Deficiency Syndrome)
10. The \_\_\_\_\_ of civilization is a topic of much debate among historians.  
*n.* the house, town, etc., where someone was born
11. Supercomputers enable scientists to create computational models of the \_\_\_\_\_.  
*n.* another name for the universe, mainly used when it is thought of as an ordered system
12. They fear a \_\_\_\_\_ of a new type of virus.  
*n.* an outbreak of a disease that affects many people over a very wide area
13. The \_\_\_\_\_ moon Europa is believed to have an ocean beneath its icy surface.  
*adj.* relating to Jupiter or its characteristics
14. The equipment is frequently used to \_\_\_\_\_ and distribute drinking water.  
*v.* to remove harmful substances from something and increase the concentration of it

ANSWERS: 7. deserted, 8. propellant, 9. acronym, 10. birthplace, 11. cosmos, 12. pandemic, 13. Jovian, 14. purify

15. Finding a safe and \_\_\_\_\_ neighborhood is important when looking for a new place to live.  
*adj.* capable of being lived in comfortably and sustainably; suitable for human habitation
16. The Grand \_\_\_\_\_ has an awe-inspiring sight.  
*n.* a large deep valley with very steep sides of rock and usually formed by a river
17. The \_\_\_\_\_ ship sank on its maiden voyage.  
*adj.* of or having a great size, power, or influence; of or relating to Titanium (= a light, strong grey, lustrous, corrosion-resistant metallic element)
18. In \_\_\_\_\_ plants use carbon dioxide to feed themselves.  
*n.* the process through which plants and other organisms transform light energy into chemical energy, which is then released through cellular respiration to power the organism's activities.
19. Battles between whites and blacks \_\_\_\_\_ immediately.  
*v.* (of a volcano) to become active and eject rocks, smoke, etc.; to start abruptly and violently
20. The \_\_\_\_\_ medium comprises gas, dust, and cosmic rays that fill the space between stars.  
*adj.* relating to or located in the space between stars
21. I will \_\_\_\_\_ these old shoes in the trash and buy a new pair.  
*v.* to throw something carelessly or casually; to get rid of something or someone
22. Scientists are studying the composition and origins of the \_\_\_\_\_ belt to understand the early solar system better.  
*n.* a small rocky body orbiting the sun, typically in the region between Mars and Jupiter

ANSWERS: 15. livable, 16. Canyon, 17. titanic, 18. photosynthesis, 19. erupted, 20. interstellar, 21. chuck, 22. asteroid

23. Internet traffic volumes have increased significantly with the advent of \_\_\_\_\_.

*n.* a mobile phone that functions as a computer and connects to the Internet

24. The \_\_\_\_\_ effects of the policy change are still being felt.

*adj.* having a wide or significant impact or influence

25. Despite facing numerous setbacks and obstacles, his \_\_\_\_\_ and determination led him to success.

*n.* steadfastness in doing something despite difficulty or delay in achieving success

ANSWERS: 23. smartphones, 24. far-reaching, 25. perseverance