

# Englist.me



## Vocabulary Builder Reference from...

*George Smoot: The design of the universe | TED Talk*

[https://www.ted.com/talks/george\\_smoot\\_the\\_design\\_of\\_the\\_universe](https://www.ted.com/talks/george_smoot_the_design_of_the_universe)

### Advanced Words Only

#### IMPORTANT

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## Session 1: Word List

### relic

*n.* an object from a previous era, especially one of historical value

*synonym* : whiff, vestige, antique

(1) historical **relic**, (2) holy **relics**

This bronze sword is a **relic** of ancient times.

### infer

*v.* to form an opinion or conclude that something is true based on existing facts

*synonym* : guess, deduce, assume

(1) **infer** quality from price, (2) **infer** the possibility

Animal desire and preference are always **inferred** from their behavior.

### reshape

*v.* to change the form or structure of something

*synonym* : alter, adjust, modify

(1) **reshape** education policy, (2) **reshape** my thoughts

The advent of the Internet completely **reshaped** the manufacturing industry.

### confer

*v.* to have a meeting or discussion to come to a decision or agreement or exchange ideas; to bestow something

*synonym* : consult, meet, discuss

(1) **confer** degree, (2) **confer** honor

The leaders of the two countries met to **confer** on the issue.

## 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.

## conundrum

*n.* a confusing and difficult problem or question

*synonym* : puzzle, riddle, enigma

(1) **conundrum** of choice, (2) pose a **conundrum**

The group faced a **conundrum** when they couldn't decide whether to go hiking or to the beach.

## flare

*v.* to burn brightly with a sudden, intense burst of flame or light; (noun) a sudden and brief burst of bright flame or light; a sudden and intense burst of radiation from the Sun's surface

*synonym* : blaze, ignite, light up

(1) **flare** up into a major crisis, (2) the **flare** of a match

The Sun **flared** and caused a sudden brightening in the sky.

## 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.

## humming

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

*synonym* : buzzing, droning, vibrating

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

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

## epoch

*n.* a particular period of time, usually marked by significant events or developments; a division of geologic time

*synonym* : era, age, period

(1) **epoch-making** event, (2) post-modern **epoch**

The Industrial Revolution is often considered an **epoch** in human history.

## exaggeration

*n.* an overstatement of facts or description; the act of making something seem larger, more important, or more significant than it is

*synonym*: hyperbole, overstatement, embellishment

(1) sensational **exaggeration**, (2) minimal **exaggeration**

His story was filled with obvious **exaggerations**.

## stealth

*n.* the quality of remaining hidden or undetected; the ability to move or act with great secrecy and subtlety

*synonym*: sneakiness, secrecy, furtiveness

(1) **stealth** technology, (2) **stealth** bomber

The thief moved with **stealth**, careful not to make any noise and alert anyone to his presence.

## Planck

*n.* a unit of measurement used in physics to quantify the smallest possible amounts of energy, typically associated with subatomic particles and other quantum phenomena

(1) **Planck** mass, (2) **Planck** length

**Planck's** constant is a fundamental constant of nature used in quantum mechanics.

## spacetime

*n.* a four-dimensional continuum consisting of three dimensions of space and one dimension of time, used to describe the physical universe according to Einstein's theory of general relativity

(1) **spacetime** continuum, (2) quantum **spacetime**

The curvature of **spacetime** is affected by the presence of mass and energy.

## motto

*n.* a phrase or slogan that expresses a guiding principle or goal

*synonym*: slogan, catchphrase, phrase

(1) the **motto** for safe traffic, (2) company **motto**  
The company's **motto** is "Innovation and Service," which is reflected in its products and customer support.

## expansive

*adj.* large or wide in extent or scope; friendly and open and willing to talk

*synonym*: large, extensive, vast

(1) with an **expansive** spirit, (2) **expansive** ocean views  
The company has an **expansive** network of offices and locations around the world.

## rot

*v.* to decay, or cause something to decay, naturally and gradually

*synonym*: perish, decay, corrode

(1) begin to **rot**, (2) **rot** with age  
Please refrigerate the meat, or it will **rot**.

## 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.

## 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.

## warp

*v.* to twist or bend out of shape, especially as a result of being heated; to distort or twist the meaning or sense of something

*synonym* : twist, distort, deform

(1) **warp** under pressure, (2) become **warped**

The ship's hull was **warped** from years of use in rough seas.

## fluctuation

*n.* a change, or the process of changing, that frequently happens, especially from one extreme to another; the quality of being unsteady and subject to changes

*synonym* : change, instability, flux

(1) price **fluctuations**, (2) **fluctuation** of water level

Temperature **fluctuations** are often milder in oceanfront areas.

## filament

*n.* a thin wire or thread, especially one used to produce light in an electric bulb

*synonym* : fiber, thread, strand

(1) **filament** lamp, (2) carbon **filament**

The **filament** in the light bulb burned out, and now it's not working.

## parsec

*n.* a unit of measurement of astronomical distance equivalent to 3.26 light-years (= about 5.88 trillion miles or 9.46 trillion kilometers)

(1) distance of a **parsec**, (2) astronomical **parsec** distance

The nearest star to our planet is about 1.3 **parsecs** away.

## speck

*n.* a very small spot, piece, or amount

*synonym* : blot, dot, mark

(1) a **speck** of dust, (2) **speck** of suspicion

The plane was just a **speck** in the sky.

## neutrino

*n.* a very small and electrically neutral particle with a very small mass that rarely reacts with other matter

(1) **neutrino** capture, (2) sterile **neutrinos**

This laboratory has a pool consisting of thousands of **neutrino** detectors.

- nod** v. to lower and raise one's head, sometimes several times, as to show approval, agreement, greeting, or confirmation  
*synonym*: respond, acknowledge, greet  
(1) **nod** at each other, (2) **nod** courteously  
She **noded** quietly in response to the question.
- intersect** v. to meet or cross one another  
*synonym*: cross, bisect, cut  
(1) **intersect** at a point, (2) railways **intersect** the country  
Her multidisciplinary works **intersect** music and picture with writing.
- intricate** *adj.* having many different parts and small details that all work together  
*synonym*: complicated, convoluted, complex  
(1) **intricate** details, (2) **intricate** lacework  
The politician managed to deal with that **intricate** issue.
- distort** v. to change something's shape, appearance, or sound so that it appears weird or unclear  
*synonym*: fudge, deform, contort  
(1) **distort** the facts, (2) **distort** the economy  
Economists contend that taxes **distort** consumer behavior in general.
- 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.
- teeny** *adj.* extremely small; tiny  
*synonym*: tiny, mini, minuscule  
(1) **teeny** bit, (2) so **teeny** tiny

The ring was so **teeny** that it almost looked like a toy.

## **plat**

*n.* a map or a plan that shows the division and layout of land into lots or parcels; a piece of land typically used for building or agricultural purposes

*synonym*: map, chart, diagram

(1) **plat** book, (2) a former **plat** of farmland

The city planning department keeps detailed **plats** of all the local properties.

## Session 2: Spelling

1. the fl\_\_e of a match *v.* to burn brightly with a sudden, intense burst of flame or light; (noun) a sudden and brief burst of bright flame or light; a sudden and intense burst of radiation from the Sun's surface
2. modern co\_\_\_\_\_gy *n.* the scientific study of the nature and origin of the universe
3. Pl\_\_\_k length *n.* a unit of measurement used in physics to quantify the smallest possible amounts of energy, typically associated with subatomic particles and other quantum phenomena
4. minimal exa\_\_\_\_\_ion *n.* an overstatement of facts or description; the act of making something seem larger, more important, or more significant than it is
5. Jo\_\_\_n planet *adj.* relating to Jupiter or its characteristics
6. become w\_\_ped *v.* to twist or bend out of shape, especially as a result of being heated; to distort or twist the meaning or sense of something
7. fl\_\_e up into a major crisis *v.* to burn brightly with a sudden, intense burst of flame or light; (noun) a sudden and brief burst of bright flame or light; a sudden and intense burst of radiation from the Sun's surface
8. re\_\_\_\_\_e education policy *v.* to change the form or structure of something

ANSWERS: 1. flare, 2. cosmology, 3. Planck, 4. exaggeration, 5. Jovian, 6. warp, 7. flare, 8. reshape



- |                               |      |   |
|-------------------------------|------|---|
| 9. begin to r_t               | v.   | to decay, or cause something to decay, naturally and gradually  |
| 10. in_____ct at a point      | v.   | to meet or cross one another  |
| 11. company mo__o             | n.   | a phrase or slogan that expresses a guiding principle or goal   |
| 12. in__r quality from price  | v.   | to form an opinion or conclude that something is true based on existing facts   |
| 13. ex_____ve ocean views     | adj. | large or wide in extent or scope; friendly and open and willing to talk   |
| 14. a cl__p of trees          | n.   | a small group of bushes, trees, flowers, people, etc.   |
| 15. r_t with age              | v.   | to decay, or cause something to decay, naturally and gradually  |
| 16. di_____t the facts        | v.   | to change something's shape, appearance, or sound so that it appears weird or unclear   |
| 17. Jo___n satellites         | adj. | relating to Jupiter or its characteristics  |
| 18. st_____h technology       | n.   | the quality of remaining hidden or undetected; the ability to move or act with great secrecy and subtlety   |
| 19. w__p under pressure       | v.   | to twist or bend out of shape, especially as a result of being heated; to distort or twist the meaning or sense of something                          |
| 20. a former p__t of farmland | n.   | a map or a plan that shows the division and layout of land into lots or parcels; a piece of land typically used for building or agricultural purposes |

ANSWERS: 9. rot, 10. intersect, 11. motto, 12. infer, 13. expansive, 14. clump, 15. rot, 16. distort, 17. Jovian, 18. stealth, 19. warp, 20. plat

21. ep\_\_h-making event *n.* a particular period of time, usually marked by significant events or developments; a division of geologic time
22. price flu\_\_\_\_\_ons *n.* a change, or the process of changing, that frequently happens, especially from one extreme to another; the quality of being unsteady and subject to changes
23. holy re\_\_cs *n.* an object from a previous era, especially one of historical value
24. a sp\_\_k of dust *n.* a very small spot, piece, or amount
25. carbon fi\_\_\_\_\_nt *n.* a thin wire or thread, especially one used to produce light in an electric bulb
26. ast\_\_\_\_\_cal numbers *adj.* relating to astronomy or the study of celestial bodies and phenomena; very large or immense in scale or magnitude
27. ast\_\_\_\_\_cal observation *adj.* relating to astronomy or the study of celestial bodies and phenomena; very large or immense in scale or magnitude
28. sensational exa\_\_\_\_\_ion *n.* an overstatement of facts or description; the act of making something seem larger, more important, or more significant than it is
29. co\_\_\_r degree *v.* to have a meeting or discussion to come to a decision or agreement or exchange ideas; to bestow something
30. hu\_\_\_\_\_g sound *adj.* producing a continuous, low, vibrating sound like that of the bee
31. sp\_\_\_\_\_me continuum *n.* a four-dimensional continuum consisting of three dimensions of space and one dimension of time, used to describe the physical universe according to Einstein's theory of general relativity

ANSWERS: 21. epoch, 22. fluctuation, 23. relic, 24. speck, 25. filament, 26. astronomical, 27. astronomical, 28. exaggeration, 29. confer, 30. humming, 31.

spacetime

32. historical re\_\_c *n.* an object from a previous era, especially one of historical value
33. quantum sp\_\_\_\_\_me *n.* a four-dimensional continuum consisting of three dimensions of space and one dimension of time, used to describe the physical universe according to Einstein's theory of general relativity
34. te\_\_y bit *adj.* extremely small; tiny
35. in\_\_\_\_\_te lacework *adj.* having many different parts and small details that all work together
36. Pl\_\_\_k mass *n.* a unit of measurement used in physics to quantify the smallest possible amounts of energy, typically associated with subatomic particles and other quantum phenomena
37. astronomical pa\_\_\_c distance *n.* a unit of measurement of astronomical distance equivalent to 3.26 light-years (= about 5.88 trillion miles or 9.46 trillion kilometers)
38. n\_d courteously *v.* to lower and raise one's head, sometimes several times, as to show approval, agreement, greeting, or confirmation
39. st\_\_\_\_\_h bomber *n.* the quality of remaining hidden or undetected; the ability to move or act with great secrecy and subtlety
40. flu\_\_\_\_\_on of water level *n.* a change, or the process of changing, that frequently happens, especially from one extreme to another; the quality of being unsteady and subject to changes

ANSWERS: 32. relic, 33. spacetime, 34. teeny, 35. intricate, 36. Planck, 37. parsec, 38. nod, 39. stealth, 40. fluctuation

41. distance of a pa\_\_\_c *n.* a unit of measurement of astronomical distance equivalent to 3.26 light-years (= about 5.88 trillion miles or 9.46 trillion kilometers)
42. sterile ne\_\_\_\_nos *n.* a very small and electrically neutral particle with a very small mass that rarely reacts with other matter
43. ne\_\_\_\_no capture *n.* a very small and electrically neutral particle with a very small mass that rarely reacts with other matter
44. co\_\_\_\_\_um of choice *n.* a confusing and difficult problem or question
45. with an ex\_\_\_\_\_ve spirit *adj.* large or wide in extent or scope; friendly and open and willing to talk
46. post-modern ep\_\_h *n.* a particular period of time, usually marked by significant events or developments; a division of geologic time
47. re\_\_\_\_\_e my thoughts *v.* to change the form or structure of something
48. di\_\_\_\_\_t the economy *v.* to change something's shape, appearance, or sound so that it appears weird or unclear
49. in\_\_\_\_\_te details *adj.* having many different parts and small details that all work together
50. sp\_\_k of suspicion *n.* a very small spot, piece, or amount
51. 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

ANSWERS: 41. parsec, 42. neutrino, 43. neutrino, 44. conundrum, 45. expansive, 46.

epoch, 47. reshape, 48. distort, 49. intricate, 50. speck, 51. redshift

52. hu\_\_\_\_g bird *adj.* producing a continuous, low, vibrating sound like that of the bee
53. railways in\_\_\_\_\_ct the country *v.* to meet or cross one another
54. fi\_\_\_\_\_nt lamp *n.* a thin wire or thread, especially one used to produce light in an electric bulb
55. 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
56. n\_d at each other *v.* to lower and raise one's head, sometimes several times, as to show approval, agreement, greeting, or confirmation
57. in\_\_r the possibility *v.* to form an opinion or conclude that something is true based on existing facts
58. co\_\_\_\_r honor *v.* to have a meeting or discussion to come to a decision or agreement or exchange ideas; to bestow something
59. p\_\_t book *n.* a map or a plan that shows the division and layout of land into lots or parcels; a piece of land typically used for building or agricultural purposes
60. pose a co\_\_\_\_\_um *n.* a confusing and difficult problem or question

ANSWERS: 52. humming, 53. intersect, 54. filament, 55. redshift, 56. nod, 57. infer, 58. confer, 59. plat, 60. conundrum

61. so te\_\_y tiny *adj.* extremely small; tiny
62. the mo\_\_o for safe traffic *n.* a phrase or slogan that expresses a guiding principle or goal
63. cl\_\_p of bacteria *n.* a small group of bushes, trees, flowers, people, etc.
64. physical co\_\_\_\_\_gy *n.* the scientific study of the nature and origin of the universe

ANSWERS: 61. teeny, 62. motto, 63. clump, 64. cosmology



## Session 3: Fill in the Blanks

1. The company has an \_\_\_\_\_ network of offices and locations around the world.  
*adj.* large or wide in extent or scope; friendly and open and willing to talk
2. Economists contend that taxes \_\_\_\_\_ consumer behavior in general.  
*v.* to change something's shape, appearance, or sound so that it appears weird or unclear
3. The curvature of \_\_\_\_\_ is affected by the presence of mass and energy.  
*n.* a four-dimensional continuum consisting of three dimensions of space and one dimension of time, used to describe the physical universe according to Einstein's theory of general relativity
4. \_\_\_\_\_ constant is a fundamental constant of nature used in quantum mechanics.  
*n.* a unit of measurement used in physics to quantify the smallest possible amounts of energy, typically associated with subatomic particles and other quantum phenomena
5. This laboratory has a pool consisting of thousands of \_\_\_\_\_ detectors.  
*n.* a very small and electrically neutral particle with a very small mass that rarely reacts with other matter
6. The ring was so \_\_\_\_\_ that it almost looked like a toy.  
*adj.* extremely small; tiny
7. She \_\_\_\_\_ quietly in response to the question.  
*v.* to lower and raise one's head, sometimes several times, as to show approval, agreement, greeting, or confirmation

ANSWERS: 1. expansive, 2. distort, 3. spacetime, 4. Planck's, 5. neutrino, 6. teeny, 7. nodded

8. The ship's hull was \_\_\_\_\_ from years of use in rough seas.
- v. to twist or bend out of shape, especially as a result of being heated; to distort or twist the meaning or sense of something
9. Her multidisciplinary works \_\_\_\_\_ music and picture with writing.
- v. to meet or cross one another
10. The Industrial Revolution is often considered an \_\_\_\_\_ in human history.
- n. a particular period of time, usually marked by significant events or developments; a division of geologic time
11. Temperature \_\_\_\_\_ are often milder in oceanfront areas.
- n. a change, or the process of changing, that frequently happens, especially from one extreme to another; the quality of being unsteady and subject to changes
12. The leaders of the two countries met to \_\_\_\_\_ on the issue.
- v. to have a meeting or discussion to come to a decision or agreement or exchange ideas; to bestow something
13. The Sun \_\_\_\_\_ and caused a sudden brightening in the sky.
- v. to burn brightly with a sudden, intense burst of flame or light; (noun) a sudden and brief burst of bright flame or light; a sudden and intense burst of radiation from the Sun's surface
14. Please refrigerate the meat, or it will \_\_\_\_\_.
- v. to decay, or cause something to decay, naturally and gradually
15. 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

ANSWERS: 8. warped, 9. intersect, 10. epoch, 11. fluctuations, 12. confer, 13. flared, 14. rot, 15. redshift

16. The \_\_\_\_\_ moon Europa is believed to have an ocean beneath its icy surface.  
*adj.* relating to Jupiter or its characteristics
17. Animal desire and preference are always \_\_\_\_\_ from their behavior.  
*v.* to form an opinion or conclude that something is true based on existing facts
18. The advent of the Internet completely \_\_\_\_\_ the manufacturing industry.  
*v.* to change the form or structure of something
19. The thief moved with \_\_\_\_\_ careful not to make any noise and alert anyone to his presence.  
*n.* the quality of remaining hidden or undetected; the ability to move or act with great secrecy and subtlety
20. The city planning department keeps detailed \_\_\_\_\_ of all the local properties.  
*n.* a map or a plan that shows the division and layout of land into lots or parcels; a piece of land typically used for building or agricultural purposes
21. This bronze sword is a \_\_\_\_\_ of ancient times.  
*n.* an object from a previous era, especially one of historical value
22. The nearest star to our planet is about 1.3 \_\_\_\_\_ away.  
*n.* a unit of measurement of astronomical distance equivalent to 3.26 light-years (= about 5.88 trillion miles or 9.46 trillion kilometers)
23. The company's \_\_\_\_\_ is "Innovation and Service," which is reflected in its products and customer support.  
*n.* a phrase or slogan that expresses a guiding principle or goal

ANSWERS: 16. Jovian, 17. inferred, 18. reshaped, 19. stealth, 20. plats, 21. relic, 22. parsecs, 23. motto

24. \_\_\_\_\_ evolved from people's philosophical questions about the natural world.  
*n.* the scientific study of the nature and origin of the universe
25. The \_\_\_\_\_ in the light bulb burned out, and now it's not working.  
*n.* a thin wire or thread, especially one used to produce light in an electric bulb
26. The politician managed to deal with that \_\_\_\_\_ issue.  
*adj.* having many different parts and small details that all work together
27. The \_\_\_\_\_ of the bees filled the air as she walked through the garden.  
*adj.* producing a continuous, low, vibrating sound like that of the bee
28. The plane was just a \_\_\_\_\_ in the sky.  
*n.* a very small spot, piece, or amount
29. I heard the \_\_\_\_\_ of his boots in the hallway.  
*n.* a small group of bushes, trees, flowers, people, etc.
30. 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
31. The group faced a \_\_\_\_\_ when they couldn't decide whether to go hiking or to the beach.  
*n.* a confusing and difficult problem or question
32. His story was filled with obvious \_\_\_\_\_.  
*n.* an overstatement of facts or description; the act of making something seem larger, more important, or more significant than it is

ANSWERS: 24. Cosmology, 25. filament, 26. intricate, 27. humming, 28. speck, 29. clump, 30. astronomical, 31. conundrum, 32. exaggerations

ANSWERS: