

# Englist.me



## Vocabulary Builder Reference from...

*TED-Ed: How much electricity does it take to power the world? | TED Talk*

[https://www.ted.com/talks/ted\\_ed\\_how\\_much\\_electricity\\_does\\_it\\_take\\_to\\_power\\_the\\_world](https://www.ted.com/talks/ted_ed_how_much_electricity_does_it_take_to_power_the_world)

### All Words

#### IMPORTANT

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## Session 1: Word List

- 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.
- coal** n. a combustible black or brownish-black sedimentary rock that is found below the ground and burnt to produce heat  
*synonym*: ember  
(1) a **coal-fired** ship, (2) construction of new **coal** plants  
We combust **coal** and other fossil fuels to generate electricity.
- furnace** n. an enclosed chamber for heating metal or glass to very high temperatures  
*synonym*: incinerator  
(1) electrical **furnace**, (2) gas-fired **furnace**  
In the **furnace**, the metal gleamed with radiance.
- spin** v. to cause something to rotate rapidly; to cause someone to feel dizzy or disoriented

*synonym* : rotate, twirl, swirl

(1) **spin** a top, (2) **spin** thread out of cotton

The tornado is **spinning** across the countryside, destroying everything in its path.

## turbine

*n.* a machine that rotates to generate power from fluids such as water or gas

*synonym* : engine, generator, power plant

(1) **turbine** energy, (2) **turbine** aerofoil

The wind **turbines** were spinning rapidly, generating clean energy for the nearby town.

## electron

*n.* a tiny particle with the negative electrical charge

*synonym* : negatron

(1) flow of **electrons**, (2) beam of **electrons**

The outermost **electron** shell determines the chemical properties of an atom.

## 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**.

## cable

*n.* a set of wires covered by plastic or rubber that carries electricity, phone signals, etc.; a solid thick rope made of twisted hemp or steel wire

*synonym* : wire, cord, rope

(1) **cable** television, (2) coaxial **cable**

This system uses submarine **cables** to exchange information between continents.

## countless

*adj.* too numerous to be counted or very many

*synonym* : innumerable, myriad, numerous

(1) **countless** hours, (2) answer **countless** questions  
There are **countless** methods for dealing with stress.

## electrify

*v.* to make a machine or system work by using electricity;  
to make someone extremely enthusiastic about or  
interested in something

*synonym*: wire, amaze, astonish

(1) **electrify** the audience, (2) **electrify** a manufacturing  
process

The product developed through years of research continues  
to **electrify** the market.

## tricky

*adj.* requiring care and skill because challenging to do or  
deal with

*synonym*: thorny, problematic, crafty

(1) **tricky** problem, (2) a **tricky** recipe to follow

We have discussed the entirety of this **tricky** problem.

## joule

*n.* the unit of measurement for energy in the International  
System of Units (SI), equal to the work done by a force  
of one newton when its point of application moves one  
meter in the direction of the force

*synonym*: calorie

(1) measure energy in **joules**, (2) **joule** heating

A 60-watt light bulb uses 60 **joules** of energy per second.

## watt

*n.* a standard unit for measuring electrical power

(1) 30- **watt** light bulb, (2) **watt** per square meter

Several hectares of land are needed to generate more than  
1-mega **watt** solar power.

## trillion

*n.* the number 1,000,000,000,000; a million million

(1) **trillion** cubic feet, (2) many **trillions** of dollars

One light year is nearly 6 **trillion** miles.

## reliable

*adj.* worthy of being relied on; trustworthy

*synonym*: dependable, trustworthy, dedicated

(1) **reliable** access, (2) guarantee **reliable** delivery  
Trains are **reliable**, inexpensive, and ideal for long-distance travel.

## industrialize

v. to organize the production of something into an industry  
*synonym*: motorize

(1) **industrialize** service, (2) **industrialized** textile production

The nations of South East Asia will quickly **industrialize** and catch up with the West.

## grid

n. a pattern of regularly spaced horizontal and vertical lines; a system of high tension cables by which electrical power is distributed throughout a region

*synonym*: gridiron, battery grid, power system

(1) a **grid** design, (2) a wire **grid**

**Grid** pattern roads often appear in urban areas.

## fossil

n. any preserved remains, impression, or trace of any once-living thing that has become hard and turned into rock

*synonym*: relic, remnant, antediluvian

(1) burning of **fossil** fuels, (2) a **fossil** leaf

It was the **fossil** of a dinosaur tooth.

## fuel

n. a substance that is typically burned to generate heat or energy

*synonym*: energy, power, gas

(1) biomass **fuel**, (2) smokeless **fuel**

The **fuel** scarcity most severely impacted the manufacturing sector

## 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.

## sustainable

*adj.* able to continue or be continued for a long time

*synonym* : continuable, endurable, tolerable

(1) **sustainable** alternative fuel, (2) principles of **sustainable** development

The government should do more to support environmentally **sustainable** agriculture.

## greenhouse

*n.* a building with walls and roof made chiefly of transparent material, such as glass, for growing plants in

*synonym* : conservatory

(1) exotic plants in a **greenhouse**, (2) emissions of **greenhouse** gases

The **greenhouse** effect is a phenomenon that happens naturally.

## contribute

*v.* to give something, especially money or goods, to provide or achieve something together with other people

*synonym* : donate, devote, commit

(1) **contribute** a large sum of money to the fund,  
(2) **contribute** to society

Government workers cannot **contribute** to political campaigns.

## eliminate

*v.* to remove or get rid of someone or something

*synonym* : wipe out, destroy, eradicate

(1) **eliminate** contestants, (2) **eliminate** sexual barriers

We can **eliminate** this possibility from those consumptions.

## emission

*n.* the act of production or sending out gas, heat, light, etc.

*synonym* : emanation, radiation, discharge

(1) global **emissions** of greenhouse gases, (2) the **emission** of light

There are five distinct **emissions** at five unique wavelengths.

## entirely

*adv.* completely

*synonym* : completely, fully, totally

(1) **entirely** satisfied with the meal, (2) he was **entirely** to blame

Later, his claim was found to be **entirely** false.

## industrious

*adj.* hardworking, diligent, and persistent in effort

*synonym* : diligent, hardworking, assiduous

(1) **industrious** worker, (2) **industrious** student

He was known to be very **industrious** and would often work late into the night.

## pump

*v.* to cause water, air, gas, etc. to move from one place to another by using mechanical equipment; to get or supply something such as money, information, etc. in significant quantities

*synonym* : drain, inject, send

(1) **pump** a secret out of success, (2) **pump** blood throughout the body

He was alert and could not **pump** any critical information out of him.

## industrial

*adj.* of or relating to or resulting from industry

*synonym* : manufacturing, mechanical

(1) beginning of the **industrial** revolution, (2) **industrial** alcohol

**Industrial** design has become more focused on human nature aspect than ever before.

## process

*n.* a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products

*synonym* : procedure, method, system

(1) **process** improvement, (2) decision-making **process**

The **process** for applying for a visa can be lengthy and

complicated.

## triple

*adj.* consisting of three items or people; three times as great or many

*synonym* : threefold

(1) a **triple** mirror, (2) **triple** digits

His coach is a **triple** Olympic champion.

## convenient

*adj.* useful, helpful, or quick to do

*synonym* : timely, fortunate, suitable

(1) **convenient** way, (2) **convenient** location

The airport offers five **convenient** access routes.

## gap

*n.* a conspicuous disparity or difference separates something such as a figure, people, their opinions, situation, etc.

*synonym* : opening, lacuna, spread

(1) the **gap** between ideal and reality, (2) distance **gap**

Many people are working together to close the gender **gap**.

## sunshine

*n.* the direct light and heat that comes from the sun

*synonym* : sunlight, daylight, rays

(1) warm **sunshine**, (2) morning **sunshine**

The **sunshine** was so bright that I had to wear sunglasses to protect my eyes.

## sunlight

*n.* the light emitted by the sun; the rays of the sun

*synonym* : daylight, rays, sunshine

(1) a glare of **sunlight**, (2) in direct **sunlight**

Radiation from **sunlight** has a different wavelength.

## transport

*n.* a system for moving people or products from one location to another using automobiles, roads, and so on

*synonym* : shipment, transit, conveyance

(1) **transport** facilities, (2) access to public **transport**

Enhanced rail **transportation** is crucial for our business.

## battery

*n.* a device that is placed inside a car, gadget, equipment, etc. and that provides electrical power to them

*synonym* : electric cell, array, batch

(1) a dry **battery**, (2) **battery** charging

The engine did not start because the **battery** was flat.

## improve

*v.* to make or become better

*synonym* : enhance, ameliorate, enrich

(1) **improve** a process, (2) **improve** the test score

We want to **improve** ties between our two countries.

## infrastructure

*n.* the basic systems, services, or features that are necessary for an organization or country, such as transport and power supplies

*synonym* : foundation, framework

(1) IT **infrastructure**, (2) **infrastructure** cost

Aging societies tend to require huge costs for **infrastructure** maintenance.

## distance

*n.* the amount of space between two points, measured in units such as miles, meters, or kilometers; the extent, scope, or range between two things, such as distance or emotional distance

*synonym* : space, gap, span

(1) driving **distance**, (2) social **distance**

The marathon runner covered a long **distance** in a short amount of time.

## nuclear

*adj.* of or relating to or constituting the nucleus of an atom; deriving destructive energy from the release of atomic energy

*synonym* : atomic

(1) **nuclear** fusion, (2) use of **nuclear** power

Many countries have now agreed to a treaty banning the use of **nuclear** weapons.



## fission

*n.* the splitting of an atomic nucleus into two or smaller nuclei, releasing a large amount of energy; the process of breaking something into smaller parts or pieces

*synonym* : splitting, division, separation

(1) heavy-ion **fission**, (2) atomic **fission**

Nuclear **fission** is the process of splitting an atom into two smaller ones.

## carbon

*n.* a chemical element that can be found in pure form as diamond or graphite, and it is also an essential part of coal and oil and is found in all plants and animals

(1) **carbon** dioxide, (2) **carbon** emission

Trees absorb **carbon** dioxide and give off oxygen.

## intermittent

*adj.* occurring at irregular intervals; not continuous or steady; stopping and starting periodically; sporadic

*synonym* : sporadic, irregular, periodic

(1) **intermittent** fever, (2) **intermittent** Wi-Fi

The **intermittent** rain made it difficult to plan a picnic.

## dispose

*v.* to put things or people in a particular manner or position; to incline someone towards a specific activity or mood; throw or cast away

*synonym* : get rid of, arrange, set

(1) **dispose** battleships for a battle, (2) **dispose** of a used product

Generally speaking, the child is innately **disposed** to learn a language.

## possibility

*n.* a chance that something may happen or be true

*synonym* : chance, prospect, likelihood

(1) **possibility** for growth, (2) **possibility** of a major earthquake

The **possibility** of getting the disease will drastically increase.

## crack

*v.* to break or cause to break without dividing into separate parts; (noun) a line on the surface of something along which it has separated without breaking

*synonym* : snap, burst, break

(1) **crack** an eggshell, (2) a **crack** in a board

He that would eat the kernel must **crack** the nut.

## fusion

*n.* the process of combining two or more things to form a single entity

*synonym* : merger, consolidation, amalgamation

(1) heat **fusion**, (2) **fusion** cuisine

Nuclear **fusion** is a process in which atomic nuclei combine to form heavier nuclei.

## involve

*v.* to include or affect someone or something as a necessary part of something else

*synonym* : implicate, include, engage

(1) **involve** a lot of paperwork, (2) **involve** a high degree of risk

The investigation **involves** several government agencies and is expected to take several months.

## 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.

## atom

*n.* the smallest unit of ordinary matter that forms a chemical element, composed of a nucleus and one or more electrons bound to the nucleus

*synonym* : particle, element, fraction

(1) oxygen **atom**, (2) neutral hydrogen **atoms**

The outermost electron shell of an **atom** determines its chemical characteristics.

## **fuse**

*n.* a small part in an electrical device or machinery that can interrupt the flow of electrical current when it is overloaded; (verb) to become plastic or fluid or liquefied from heat

*synonym* : (verb) melt, (verb) blend

(1) **fuse** blows, (2) **fuse** with one another

He has a short **fuse**.

## **harness**

*v.* to control and exploit the power of something, especially natural resources that produce energy; (noun) a set of narrow pieces of leather and metal that are used to control or hold in place a person, animal, or object

*synonym* : rein in, control, (noun) belt

(1) **harness** a horse to a carriage, (2) put a **harness** on my pet

People have been exploring ways to **harness** natural forces and resources since ancient times.

## **release**

*v.* to set free or allow to escape from confinement

*synonym* : free, let go, discharge

(1) **release** a prisoner, (2) **release** CO2 into the air

The animal rights group worked to **release** the dolphins back into the wild.

## **accident**

*n.* an unfortunate event, especially one causing damage or injury

*synonym* : calamity, casualty, chance

(1) cause an **accident**, (2) injury in a car **accident**

The **accident** partially destroyed my vehicle.

## **radioactive**

*adj.* emitting powerful and dangerous energy when the nuclei (= central parts) of atoms are broken up

*synonym* : dangerous, contaminated, emanating

(1) **radioactive** decay, (2) **radioactive** isotope

The **radioactive** material was carefully stored in a lead-lined container.

## associate

v. to mentally connect someone or something with someone or something else

*synonym*: tie in, link, consociate

(1) **associate** alcohol with gambling, (2) **associate** with people widely

The majority of consumers **associate** this brand with quality.

## renewable

*adj.* capable of being renewed, extended, or replaced

*synonym*: sustainable, replaceable

(1) **renewable** energy, (2) **renewable** subscriptions

The production of **renewable** fuels requires massive volumes of fresh water.

## breakthrough

*n.* a sudden, dramatic, and important discovery or development that helps to improve a situation or provide an answer to a problem

*synonym*: advance, progress, innovation

(1) **breakthrough** in the negotiations, (2) **breakthrough** discovery

A technique called deep learning has led to **breakthroughs** in AI.

## revolutionize

v. to bring about a complete or radical change in something, often through the introduction of new methods or ideas

*synonym*: transform, innovate, modernize

(1) **revolutionize** the industry, (2) **revolutionize** the technology

The invention of the smartphone **revolutionized** the way we communicate with each other.

## sustain

v. to supply enough of what somebody or something needs to survive or exist; to accept as valid

*synonym*: maintain, nurture, support

(1) **sustain** a good relationship with him, (2) **sustain** a wellness lifestyle

She struggled to **sustain** the children's reading habits.

## Session 2: Spelling

1. nu\_\_\_\_r fusion  
*adj.* of or relating to or constituting the nucleus of an atom; deriving destructive energy from the release of atomic energy
2. ca\_\_e television  
*n.* a set of wires covered by plastic or rubber that carries electricity, phone signals, etc.; a solid thick rope made of twisted hemp or steel wire
3. co\_\_\_\_\_ss hours  
*adj.* too numerous to be counted or very many
4. rev\_\_\_\_\_ize the technology  
*v.* to bring about a complete or radical change in something, often through the introduction of new methods or ideas
5. put a ha\_\_\_\_s on my pet  
*v.* to control and exploit the power of something, especially natural resources that produce energy; (noun) a set of narrow pieces of leather and metal that are used to control or hold in place a person, animal, or object
6. ind\_\_\_\_\_ize service  
*v.* to organize the production of something into an industry
7. con\_\_\_\_\_te a large sum of money to the fund  
*v.* to give something, especially money or goods, to provide or achieve something together with other people
8. di\_\_\_\_e of a used product  
*v.* to put things or people in a particular manner or position; to incline someone towards a specific activity or mood; throw or cast away

ANSWERS: 1. nuclear, 2. cable, 3. countless, 4. revolutionize, 5. harness, 6. industrialize, 7. contribute, 8. dispose

9. injury in a car ac\_\_\_\_nt      *n.* an unfortunate event, especially one causing damage or injury
10. pos\_\_\_\_\_ty of a major earthquake      *n.* a chance that something may happen or be true
11. s\_\_n a top      *v.* to cause something to rotate rapidly; to cause someone to feel dizzy or disoriented
12. morning su\_\_\_\_ne      *n.* the direct light and heat that comes from the sun
13. cr\_\_k an eggshell      *v.* to break or cause to break without dividing into separate parts; (noun) a line on the surface of something along which it has separated without breaking
14. tr\_\_\_\_\_on cubic feet      *n.* the number 1,000,000,000,000; a million million
15. fu\_\_\_\_n cuisine      *n.* the process of combining two or more things to form a single entity
16. social di\_\_\_\_ce      *n.* the amount of space between two points, measured in units such as miles, meters, or kilometers; the extent, scope, or range between two things, such as distance or emotional distance
17. a tr\_\_\_y recipe to follow      *adj.* requiring care and skill because challenging to do or deal with
18. inf\_\_\_\_\_ure cost      *n.* the basic systems, services, or features that are necessary for an organization or country, such as transport and power supplies
19. f\_\_p over the pork chop      *v.* to turn over into a different position quickly; to throw or toss with a light motion

ANSWERS: 9. accident, 10. possibility, 11. spin, 12. sunshine, 13. crack, 14. trillion, 15. fusion, 16. distance, 17. tricky, 18. infrastructure, 19. flip

20. ba\_\_\_\_y charging *n.* a device that is placed inside a car, gadget, equipment, etc. and that provides electrical power to them
21. tr\_\_\_\_\_rt facilities *n.* a system for moving people or products from one location to another using automobiles, roads, and so on
22. gas-fired fu\_\_\_\_\_e *n.* an enclosed chamber for heating metal or glass to very high temperatures
23. measure energy in jo\_\_es *n.* the unit of measurement for energy in the International System of Units (SI), equal to the work done by a force of one newton when its point of application moves one meter in the direction of the force
24. atomic fi\_\_\_\_\_n *n.* the splitting of an atomic nucleus into two or smaller nuclei, releasing a large amount of energy; the process of breaking something into smaller parts or pieces
25. rad\_\_\_\_\_ve decay *adj.* emitting powerful and dangerous energy when the nuclei (= central parts) of atoms are broken up
26. su\_\_\_\_\_n a wellness lifestyle *v.* to supply enough of what somebody or something needs to survive or exist; to accept as valid
27. re\_\_\_\_\_e a prisoner *v.* to set free or allow to escape from confinement
28. rad\_\_\_\_\_ve isotope *adj.* emitting powerful and dangerous energy when the nuclei (= central parts) of atoms are broken up

ANSWERS: 20. battery, 21. transport, 22. furnace, 23. joule, 24. fission, 25. radioactive, 26. sustain, 27. release, 28. radioactive



29. a sm\_\_\_\_ng blow *adj.* very successful or impressive; causing something to be broken or destroyed
30. ca\_\_\_\_n emission *n.* a chemical element that can be found in pure form as diamond or graphite, and it is also an essential part of coal and oil and is found in all plants and animals
31. 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
32. distance g\_p *n.* a conspicuous disparity or difference separates something such as a figure, people, their opinions, situation, etc.
33. re\_\_\_\_le access *adj.* worthy of being relied on; trustworthy
34. in\_\_\_\_e a lot of paperwork *v.* to include or affect someone or something as a necessary part of something else
35. a g\_\_d design *n.* a pattern of regularly spaced horizontal and vertical lines; a system of high tension cables by which electrical power is distributed throughout a region
36. el\_\_\_\_fy a manufacturing process *v.* to make a machine or system work by using electricity; to make someone extremely enthusiastic about or interested in something
37. warm su\_\_\_\_ne *n.* the direct light and heat that comes from the sun

ANSWERS: 29. smashing, 30. carbon, 31. prop, 32. gap, 33. reliable, 34. involve, 35. grid, 36. electrify, 37. sunshine

38. biomass f\_\_l *n.* a substance that is typically burned to generate heat or energy
39. decision-making pr\_\_\_\_s *n.* a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products
40. answer co\_\_\_\_ss questions *adj.* too numerous to be counted or very many
41. a glare of su\_\_\_\_ht *n.* the light emitted by the sun; the rays of the sun
42. su\_\_\_\_n a good relationship with him *v.* to supply enough of what somebody or something needs to survive or exist; to accept as valid
43. give sm\_\_\_\_ng results *adj.* very successful or impressive; causing something to be broken or destroyed
44. e\_\_t a gamma ray *v.* to give off or send out something such as light, heat, sound, gas, etc.
45. smokeless f\_\_l *n.* a substance that is typically burned to generate heat or energy
46. int\_\_\_\_ent fever *adj.* occurring at irregular intervals; not continuous or steady; stopping and starting periodically; sporadic
47. el\_\_\_\_fy the audience *v.* to make a machine or system work by using electricity; to make someone extremely enthusiastic about or interested in something

ANSWERS: 38. fuel, 39. process, 40. countless, 41. sunlight, 42. sustain, 43. smashing, 44. emit, 45. fuel, 46. intermittent, 47. electrify

48. p\_\_p a secret out of success      *v.* to cause water, air, gas, etc. to move from one place to another by using mechanical equipment; to get or supply something such as money, information, etc. in significant quantities
49. di\_\_\_\_e battleships for a battle      *v.* to put things or people in a particular manner or position; to incline someone towards a specific activity or mood; throw or cast away
50. f\_\_e with one another      *n.* a small part in an electrical device or machinery that can interrupt the flow of electrical current when it is overloaded; *(verb)* to become plastic or fluid or liquefied from heat
51. im\_\_\_\_e a process      *v.* to make or become better
52. el\_\_\_\_te contestants      *v.* to remove or get rid of someone or something
53. driving di\_\_\_\_ce      *n.* the amount of space between two points, measured in units such as miles, meters, or kilometers; the extent, scope, or range between two things, such as distance or emotional distance
54. el\_\_\_\_te sexual barriers      *v.* to remove or get rid of someone or something
55. tr\_\_\_y problem      *adj.* requiring care and skill because challenging to do or deal with
56. tr\_\_\_e digits      *adj.* consisting of three items or people; three times as great or many
57. f\_\_p a coin      *v.* to turn over into a different position quickly; to throw or toss with a light motion

ANSWERS: 48. pump, 49. dispose, 50. fuse, 51. improve, 52. eliminate, 53. distance, 54. eliminate, 55. tricky, 56. triple, 57. flip

58. electrical fu\_\_\_\_e *n.* an enclosed chamber for heating metal or glass to very high temperatures
59. bre\_\_\_\_ugh discovery *n.* a sudden, dramatic, and important discovery or development that helps to improve a situation or provide an answer to a problem
60. con\_\_\_\_te to society *v.* to give something, especially money or goods, to provide or achieve something together with other people
61. re\_\_\_\_e CO2 into the air *v.* to set free or allow to escape from confinement
62. as\_\_\_\_te with people widely *v.* to mentally connect someone or something with someone or something else
63. en\_\_\_\_ly satisfied with the meal *adv.* completely
64. tu\_\_\_\_e energy *n.* a machine that rotates to generate power from fluids such as water or gas
65. rev\_\_\_\_ize the industry *v.* to bring about a complete or radical change in something, often through the introduction of new methods or ideas
66. IT inf\_\_\_\_ure *n.* the basic systems, services, or features that are necessary for an organization or country, such as transport and power supplies
67. f\_\_e blows *n.* a small part in an electrical device or machinery that can interrupt the flow of electrical current when it is overloaded; (verb) to become plastic or fluid or liquefied from heat

ANSWERS: 58. furnace, 59. breakthrough, 60. contribute, 61. release, 62. associate, 63. entirely, 64. turbine, 65. revolutionize, 66. infrastructure, 67. fuse

68. oxygen a\_\_m *n.* the smallest unit of ordinary matter that forms a chemical element, composed of a nucleus and one or more electrons bound to the nucleus
69. tu\_\_\_\_\_e aerofoil *n.* a machine that rotates to generate power from fluids such as water or gas
70. principles of sus\_\_\_\_\_le development *adj.* able to continue or be continued for a long time
71. exotic plants in a gre\_\_\_\_\_se *n.* a building with walls and roof made chiefly of transparent material, such as glass, for growing plants in
72. re\_\_\_\_\_le energy *adj.* capable of being renewed, extended, or replaced
73. ind\_\_\_\_\_ized textile production *v.* to organize the production of something into an industry
74. a tr\_\_\_e mirror *adj.* consisting of three items or people; three times as great or many
75. in direct su\_\_\_\_\_ht *n.* the light emitted by the sun; the rays of the sun
76. a cr\_\_k in a board *v.* to break or cause to break without dividing into separate parts; (noun) a line on the surface of something along which it has separated without breaking
77. the em\_\_\_\_\_on of light *n.* the act of production or sending out gas, heat, light, etc.
78. w\_\_t per square meter *n.* a standard unit for measuring electrical power
79. 30-w\_\_t light bulb *n.* a standard unit for measuring electrical power

ANSWERS: 68. atom, 69. turbine, 70. sustainable, 71. greenhouse, 72. renewable, 73. industrialize, 74. triple, 75. sunlight, 76. crack, 77. emission, 78. watt, 79. watt

80. bre\_\_\_\_\_ugh in the negotiations      *n.* a sudden, dramatic, and important discovery or development that helps to improve a situation or provide an answer to a problem
81. emissions of gre\_\_\_\_\_se gases      *n.* a building with walls and roof made chiefly of transparent material, such as glass, for growing plants in
82. in\_\_\_\_\_e a high degree of risk      *v.* to include or affect someone or something as a necessary part of something else
83. use of nu\_\_\_\_\_r power      *adj.* of or relating to or constituting the nucleus of an atom; deriving destructive energy from the release of atomic energy
84. global em\_\_\_\_\_ons of greenhouse gases      *n.* the act of production or sending out gas, heat, light, etc.
85. ind\_\_\_\_\_us worker      *adj.* hardworking, diligent, and persistent in effort
86. a wire g\_\_d      *n.* a pattern of regularly spaced horizontal and vertical lines; a system of high tension cables by which electrical power is distributed throughout a region
87. flow of el\_\_\_\_\_ons      *n.* a tiny particle with the negative electrical charge
88. access to public tr\_\_\_\_\_rt      *n.* a system for moving people or products from one location to another using automobiles, roads, and so on
89. guarantee re\_\_\_\_\_le delivery      *adj.* worthy of being relied on; trustworthy

ANSWERS: 80. breakthrough, 81. greenhouse, 82. involve, 83. nuclear, 84. emission, 85. industrious, 86. grid, 87. electron, 88. transport, 89. reliable

90. con\_\_\_\_\_nt location *adj.* useful, helpful, or quick to do
91. p\_\_p blood throughout the body *v.* to cause water, air, gas, etc. to move from one place to another by using mechanical equipment; to get or supply something such as money, information, etc. in significant quantities
92. ha\_\_\_\_\_s a horse to a carriage *v.* to control and exploit the power of something, especially natural resources that produce energy; (noun) a set of narrow pieces of leather and metal that are used to control or hold in place a person, animal, or object
93. burning of fo\_\_\_l fuels *n.* any preserved remains, impression, or trace of any once-living thing that has become hard and turned into rock
94. int\_\_\_\_\_ent Wi-Fi *adj.* occurring at irregular intervals; not continuous or steady; stopping and starting periodically; sporadic
95. ind\_\_\_\_\_us student *adj.* hardworking, diligent, and persistent in effort
96. e\_\_t air pollution *v.* to give off or send out something such as light, heat, sound, gas, etc.
97. beginning of the ind\_\_\_\_\_al revolution *adj.* of or relating to or resulting from industry
98. con\_\_\_\_\_nt way *adj.* useful, helpful, or quick to do
99. neutral hydrogen a\_\_ms *n.* the smallest unit of ordinary matter that forms a chemical element, composed of a nucleus and one or more electrons bound to the nucleus

ANSWERS: 90. convenient, 91. pump, 92. harness, 93. fossil, 94. intermittent, 95. industrious, 96. emit, 97. industrial, 98. convenient, 99. atom

100. a dry ba\_\_\_\_y *n.* a device that is placed inside a car, gadget, equipment, etc. and that provides electrical power to them
101. many tr\_\_\_\_ons of dollars *n.* the number 1,000,000,000,000; a million million
102. the g\_p between ideal and reality *n.* a conspicuous disparity or difference separates something such as a figure, people, their opinions, situation, etc.
103. as\_\_\_\_te alcohol with gambling *v.* to mentally connect someone or something with someone or something else
104. a fo\_\_\_\_l leaf *n.* any preserved remains, impression, or trace of any once-living thing that has become hard and turned into rock
105. ind\_\_\_\_al alcohol *adj.* of or relating to or resulting from industry
106. heavy-ion fi\_\_\_\_n *n.* the splitting of an atomic nucleus into two or smaller nuclei, releasing a large amount of energy; the process of breaking something into smaller parts or pieces
107. s\_\_n thread out of cotton *v.* to cause something to rotate rapidly; to cause someone to feel dizzy or disoriented
108. pr\_\_\_\_s improvement *n.* a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products

ANSWERS: 100. battery, 101. trillion, 102. gap, 103. associate, 104. fossil, 105. industrial, 106. fission, 107. spin, 108. process



109. ca\_\_\_n dioxide *n.* a chemical element that can be found in pure form as diamond or graphite, and it is also an essential part of coal and oil and is found in all plants and animals
110. heat fu\_\_\_n *n.* the process of combining two or more things to form a single entity
111. re\_\_\_\_\_le subscriptions *adj.* capable of being renewed, extended, or replaced
112. sus\_\_\_\_\_le alternative fuel *adj.* able to continue or be continued for a long time
113. im\_\_\_\_\_e the test score *v.* to make or become better
114. cause an ac\_\_\_\_\_nt *n.* an unfortunate event, especially one causing damage or injury
115. coaxial ca\_\_e *n.* a set of wires covered by plastic or rubber that carries electricity, phone signals, etc.; a solid thick rope made of twisted hemp or steel wire
116. beam of el\_\_\_\_\_ons *n.* a tiny particle with the negative electrical charge
117. pos\_\_\_\_\_ty for growth *n.* a chance that something may happen or be true
118. jo\_\_e heating *n.* the unit of measurement for energy in the International System of Units (SI), equal to the work done by a force of one newton when its point of application moves one meter in the direction of the force
119. construction of new c\_\_l plants *n.* a combustible black or brownish-black sedimentary rock that is found below the ground and burnt to produce heat

ANSWERS: 109. carbon, 110. fusion, 111. renewable, 112. sustainable, 113. improve, 114. accident, 115. cable, 116. electron, 117. possibility, 118. joule, 119. coal

120. he was en\_\_\_\_ly to blame

*adv.* completely

121. a c\_\_l-fired ship

*n.* a combustible black or brownish-black sedimentary rock that is found below the ground and burnt to produce heat

122. 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

ANSWERS: 120. entirely, 121. coal, 122. prop

## Session 3: Fill in the Blanks

1. The \_\_\_\_\_ for applying for a visa can be lengthy and complicated.  
*n.* a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products
2. The government should do more to support environmentally \_\_\_\_\_ agriculture.  
*adj.* able to continue or be continued for a long time
3. We want to \_\_\_\_\_ ties between our two countries.  
*v.* to make or become better
4. The invention of the smartphone \_\_\_\_\_ the way we communicate with each other.  
*v.* to bring about a complete or radical change in something, often through the introduction of new methods or ideas
5. He was known to be very \_\_\_\_\_ and would often work late into the night.  
*adj.* hardworking, diligent, and persistent in effort
6. Radiation from \_\_\_\_\_ has a different wavelength.  
*n.* the light emitted by the sun; the rays of the sun
7. Many countries have now agreed to a treaty banning the use of \_\_\_\_\_ weapons.  
*adj.* of or relating to or constituting the nucleus of an atom; deriving destructive energy from the release of atomic energy

ANSWERS: 1. process, 2. sustainable, 3. improve, 4. revolutionized, 5. industrious, 6. sunlight, 7. nuclear

8. 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
9. We combust \_\_\_\_\_ and other fossil fuels to generate electricity.
- n. a combustible black or brownish-black sedimentary rock that is found below the ground and burnt to produce heat
10. Generally speaking, the child is innately \_\_\_\_\_ to learn a language.
- v. to put things or people in a particular manner or position; to incline someone towards a specific activity or mood; throw or cast away
11. She struggled to \_\_\_\_\_ the children's reading habits.
- v. to supply enough of what somebody or something needs to survive or exist; to accept as valid
12. People have been exploring ways to \_\_\_\_\_ natural forces and resources since ancient times.
- v. to control and exploit the power of something, especially natural resources that produce energy; (noun) a set of narrow pieces of leather and metal that are used to control or hold in place a person, animal, or object
13. Nuclear \_\_\_\_\_ is a process in which atomic nuclei combine to form heavier nuclei.
- n. the process of combining two or more things to form a single entity
14. A 60-watt light bulb uses 60 \_\_\_\_\_ of energy per second.
- n. the unit of measurement for energy in the International System of Units (SI), equal to the work done by a force of one newton when its point of application moves one meter in the direction of the force

ANSWERS: 8. flipped, 9. coal, 10. disposed, 11. sustain, 12. harness, 13. fusion, 14. joules

15. Government workers cannot \_\_\_\_\_ to political campaigns.  
*v.* to give something, especially money or goods, to provide or achieve something together with other people
16. The investigation \_\_\_\_\_ several government agencies and is expected to take several months.  
*v.* to include or affect someone or something as a necessary part of something else
17. 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
18. \_\_\_\_\_ design has become more focused on human nature aspect than ever before.  
*adj.* of or relating to or resulting from industry
19. He that would eat the kernel must \_\_\_\_\_ the nut.  
*v.* to break or cause to break without dividing into separate parts; (noun) a line on the surface of something along which it has separated without breaking
20. The nations of South East Asia will quickly \_\_\_\_\_ and catch up with the West.  
*v.* to organize the production of something into an industry
21. He has a short \_\_\_\_\_.  
*n.* a small part in an electrical device or machinery that can interrupt the flow of electrical current when it is overloaded; (verb) to become plastic or fluid or liquefied from heat
22. The engine did not start because the \_\_\_\_\_ was flat.  
*n.* a device that is placed inside a car, gadget, equipment, etc. and that provides electrical power to them

ANSWERS: 15. contribute, 16. involves, 17. smashing, 18. Industrial, 19. crack, 20. industrialize, 21. fuse, 22. battery

23. It was the \_\_\_\_\_ of a dinosaur tooth.

- n.* any preserved remains, impression, or trace of any once-living thing that has become hard and turned into rock

24. 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

25. The animal rights group worked to \_\_\_\_\_ the dolphins back into the wild.

- v.* to set free or allow to escape from confinement

26. The \_\_\_\_\_ scarcity most severely impacted the manufacturing sector

- n.* a substance that is typically burned to generate heat or energy

27. One light year is nearly 6 \_\_\_\_\_ miles.

- n.* the number 1,000,000,000,000; a million million

28. He was alert and could not \_\_\_\_\_ any critical information out of him.

- v.* to cause water, air, gas, etc. to move from one place to another by using mechanical equipment; to get or supply something such as money, information, etc. in significant quantities

29. The \_\_\_\_\_ was so bright that I had to wear sunglasses to protect my eyes.

- n.* the direct light and heat that comes from the sun

30. In the \_\_\_\_\_ the metal gleamed with radiance.

- n.* an enclosed chamber for heating metal or glass to very high temperatures

ANSWERS: 23. fossil, 24. prop, 25. release, 26. fuel, 27. trillion, 28. pump, 29. sunshine, 30. furnace,

31. The \_\_\_\_\_ partially destroyed my vehicle.  
*n.* an unfortunate event, especially one causing damage or injury
32. The marathon runner covered a long \_\_\_\_\_ in a short amount of time.  
*n.* the amount of space between two points, measured in units such as miles, meters, or kilometers; the extent, scope, or range between two things, such as distance or emotional distance
33. The \_\_\_\_\_ rain made it difficult to plan a picnic.  
*adj.* occurring at irregular intervals; not continuous or steady; stopping and starting periodically; sporadic
34. The \_\_\_\_\_ effect is a phenomenon that happens naturally.  
*n.* a building with walls and roof made chiefly of transparent material, such as glass, for growing plants in
35. The \_\_\_\_\_ material was carefully stored in a lead-lined container.  
*adj.* emitting powerful and dangerous energy when the nuclei (= central parts) of atoms are broken up
36. Trains are \_\_\_\_\_ inexpensive, and ideal for long-distance travel.  
*adj.* worthy of being relied on; trustworthy
37. Trees absorb \_\_\_\_\_ dioxide and give off oxygen.  
*n.* a chemical element that can be found in pure form as diamond or graphite, and it is also an essential part of coal and oil and is found in all plants and animals
38. \_\_\_\_\_ pattern roads often appear in urban areas.  
*n.* a pattern of regularly spaced horizontal and vertical lines; a system of high tension cables by which electrical power is distributed throughout a region

ANSWERS: 31. accident, 32. distance, 33. intermittent, 34. greenhouse, 35. radioactive, 36. reliable, 37. carbon, 38. Grid

39. A technique called deep learning has led to \_\_\_\_\_ in AI.  
*n.* a sudden, dramatic, and important discovery or development that helps to improve a situation or provide an answer to a problem
40. There are five distinct \_\_\_\_\_ at five unique wavelengths.  
*n.* the act of production or sending out gas, heat, light, etc.
41. The \_\_\_\_\_ of getting the disease will drastically increase.  
*n.* a chance that something may happen or be true
42. Several hectares of land are needed to generate more than 1-mega\_\_\_\_\_ solar power.  
*n.* a standard unit for measuring electrical power
43. We can \_\_\_\_\_ this possibility from those consumptions.  
*v.* to remove or get rid of someone or something
44. Enhanced rail \_\_\_\_\_ is crucial for our business.  
*n.* a system for moving people or products from one location to another using automobiles, roads, and so on
45. The airport offers five \_\_\_\_\_ access routes.  
*adj.* useful, helpful, or quick to do
46. The tornado is \_\_\_\_\_ across the countryside, destroying everything in its path.  
*v.* to cause something to rotate rapidly; to cause someone to feel dizzy or disoriented

ANSWERS: 39. breakthroughs, 40. emissions, 41. possibility, 42. watt, 43. eliminate, 44. transportation, 45. convenient, 46. spinning



47. Nuclear \_\_\_\_\_ is the process of splitting an atom into two smaller ones.  
*n.* the splitting of an atomic nucleus into two or smaller nuclei, releasing a large amount of energy; the process of breaking something into smaller parts or pieces
48. The majority of consumers \_\_\_\_\_ this brand with quality.  
*v.* to mentally connect someone or something with someone or something else
49. We have discussed the entirety of this \_\_\_\_\_ problem.  
*adj.* requiring care and skill because challenging to do or deal with
50. Many people are working together to close the gender \_\_\_\_\_.  
*n.* a conspicuous disparity or difference separates something such as a figure, people, their opinions, situation, etc.
51. There are \_\_\_\_\_ methods for dealing with stress.  
*adj.* too numerous to be counted or very many
52. Aging societies tend to require huge costs for \_\_\_\_\_ maintenance.  
*n.* the basic systems, services, or features that are necessary for an organization or country, such as transport and power supplies
53. The outermost \_\_\_\_\_ shell determines the chemical properties of an atom.  
*n.* a tiny particle with the negative electrical charge
54. Later, his claim was found to be \_\_\_\_\_ false.  
*adv.* completely
55. The wind \_\_\_\_\_ were spinning rapidly, generating clean energy for the nearby town.  
*n.* a machine that rotates to generate power from fluids such as water or gas

ANSWERS: 47. fission, 48. associate, 49. tricky, 50. gap, 51. countless, 52. infrastructure, 53. electron, 54. entirely, 55. turbines

56. The production of \_\_\_\_\_ fuels requires massive volumes of fresh water.  
*adj.* capable of being renewed, extended, or replaced
57. The outermost electron shell of an \_\_\_\_\_ determines its chemical characteristics.  
*n.* the smallest unit of ordinary matter that forms a chemical element, composed of a nucleus and one or more electrons bound to the nucleus
58. The product developed through years of research continues to \_\_\_\_\_ the market.  
*v.* to make a machine or system work by using electricity; to make someone extremely enthusiastic about or interested in something
59. During the unloading, the container box \_\_\_\_\_ a clicking sound.  
*v.* to give off or send out something such as light, heat, sound, gas, etc.
60. This system uses submarine \_\_\_\_\_ to exchange information between continents.  
*n.* a set of wires covered by plastic or rubber that carries electricity, phone signals, etc.; a solid thick rope made of twisted hemp or steel wire
61. His coach is a \_\_\_\_\_ Olympic champion.  
*adj.* consisting of three items or people; three times as great or many

ANSWERS: 56. renewable, 57. atom, 58. electrify, 59. emits, 60. cables, 61. triple