# **Englist.me**

## Vocabulary Builder Reference from...

Thomas Thwaites: How I built a toaster -- from

scratch | TED Talk

https://www.ted.com/talks/thomas\_thwaites\_how\_i\_b

uilt\_a\_toaster\_from\_scratch



### All Words

#### **IMPORTANT**

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### **Session 1: Word List**

#### surround

- v. to be all around something or somebody synonym: encircle, encompass, envelop
- (1) **surround** a town, (2) a stone wall **surrounds** the palace On three sides, mountains **surround** the settlement.

### sludge

 a thick, wet mixture of liquid and solid matter, typically one that is unpleasant or harmful

synonym: muck, ooze, mire

(1) **sludge** treatment, (2) **sludge** removal

The **sludge** at the bottom of the river was a toxic hazard for marine life.

### bury

- v. to place a dead body in the ground, grave, or tomb synonym: entomb, sink, forget
- (1) **bury** in the earth, (2) **bury** emotion There is plenty of space to **bury** everyone.

### monitor

v. to observe, check, and track the progress or quality of something over a period of time

synonym: proctor, check, observe

(1) **monitor** an exam, (2) **monitor** the data carefully They used a special receiver to **monitor** police radio

### channels.

### annoying

adj. making someone feel slightly angrysynonym: aggravating, bothersome, irksome

(1) **annoying** banner ad, (2) **annoying** habit The phone call is an **annoying** interruption.

### magical

adj. produced by or containing supernatural powerssynonym: enchanting, occult, supernatural

(1) **magical** place, (2) **magical** powers When I was a child, my mother often cast **magical** spells to ease my pain whenever I was injured.

### transformation

*n.* a complete change in form, nature, or appearance of someone or something

*synonym*: change, conversion, renewal

(1) the **transformation** of a tadpole into a frog, (2) cast a **transformation** spell

Understanding unitary **transformations** of a normal matrix require considerable mathematical sophistication.

### toast

- slices of bread browned on both sides that have been put near a high heat; a drink in honor of or to the health of a person or even
- (1) drink a **toast**, (2) slice of **toast** We made a **toast** with everyone.

### inspire

v. to make somebody fill with the desire, confidence, or enthusiasm, especially to do something creative

synonym: boost, encourage, enlighten

(1) **inspire** a feeling of curiosity, (2) **inspire** him to write a novel

The unique style of this martial arts **inspired** many action film producers.

### quotation

a group of words taken from a text or speech and repeated by someone other than the original author or speaker

synonym: excerpt, passage, quote

(1) double quotation marks, (2) take a quotation He included a **quotation** from the book in his essay.

#### hitchhike

to obtain a ride in a passing vehicle by signaling to the driver or waving one's thumb; to travel by getting a free ride in someone else's vehicle

synonym: thumb a ride, bum a ride

(1) **hitchhike** a ride, (2) **hitchhike** across the country She had to **hitchhike** to the nearest gas station when her car broke down.

galaxy

an independent group of stars, interstellar gas, dark matter, etc., in the universe, bound together by gravity

synonym: star cluster, nebula, star system

- (1) elliptic **galaxy**, (2) a **galaxy** of famous actors The Milky Way **galaxy** has numerous water-bearing planets.
- a person who is admired or idealized for courage, n. outstanding achievements, or noble qualities; a character in literature or history who is central to the plot and who exhibits heroic qualities

synonym: champion, protagonist, savior

(1) local **hero**, (2) unsung **hero** 

The soldier who sacrificed his life for his country is considered a national hero.

### planet

any of the nine large celestial bodies that circle in the solar system; any celestial body that revolves around a star

*synonym*: earth, world, globe

(1) planet like the Earth, (2) save the planet Mercury is the closest **planet** to the sun.

#### hero

### populate

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

synonym: inhabit, occupy, dwell

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

### technological

adj. based on scientific and industrial progresssynonym: specialized, technical

(1) **technological** advancement, (2) **technological** policy **Technological** advances have disrupted many industries.

### primitive

 adj. of or relating to an early stage of society with no industry or technological development; simple, naive, or old-fashioned in style

synonym: elementary, naive, rudimental

- (1) **primitive** society, (2) artifact of a **primitive** humankind. The industry in this country is still **primitive**.
- v. to think or accept something to be true without having proof of it; to take or begin to have power; to begin to exhibit a specific quality or appearance

synonym: guess, presume, suppose

(1) **assume** a lousy attitude to his boss, (2) **assume** an important role

The following example **assumes** that the capacity of each battery is the same.

### villager

 a person who lives in a village or small rural community;
 a person who is part of a close-knit and traditional community

synonym: resident, inhabitant, countryperson

(1) villager community, (2) local villager

The rural **villagers** were saddened by the destruction of their homes in the natural disaster.

#### assume

### emperor

n. the male ruler of an empire

synonym: ruler, king, dictator

(1) **emperor** of Rome, (2) former **emperor** 

The **Emperor** once lived in the vast palace.

### transform

v. to change in outward structure or looks;

synonym: alter, convert, change

(1) **transform** an education system, (2) **transform** heat into power

My father's death **transformed** my life completely.

#### command

n. authority, control, or mastery over something, often referring to military or leadership contexts; a directive, order, or instruction; expertise or confidence in a specific area; (verb) to give an authoritative order or instruction, or to be in charge or control of something

synonym: control, authority, leadership

(1) **command** and control, (2) **command** a battery

The general gave a **command** to his troops to prepare for battle.

### element

- n. a fundamental or essential part of somethingsynonym: component, feature, essence
- (1) new design **elements**, (2) nonmetallic **elements**Natural selection is an essential **element** in Darwin's theory of evolution.

### barely

adv. just enough; hardly; with great difficulty or effort synonym: scarcely, hardly, only just

(1) barely noticeable, (2) barely finished

I **barely** made it to the meeting on time, rushing from another appointment across town.

### Wikipedia

 an online encyclopedia that allows users to contribute and edit articles collaboratively; a vast and frequently updated repository of information on a wide range of topics synonym: online encyclopedia, webpedia

(1) Wikipedia entry, (2) Wikipedia article

Not all teachers accept citing **Wikipedia** as a valid source for academic papers.

### scratch

to cut or damage the surface of something or the skin with a sharp or pointed object

synonym: claw, rub, scrape

(1) **scratch** off a name, (2) **scratch** my signature Don't **scratch** your mosquito bites.

### reverse

v. to change something's direction, order, position, decision, etc., to the opposite one; (adjective) directed or moving toward the rear

synonym: overturn, shift, switch

(1) **reverse** the trend, (2) **reverse** the order

The restaurant **reversed** a ban on smoking.

### engineer

 a person whose job is designing, building, or maintaining something such as machines, structures, or software

synonym: architect, creator, builder

(1) a civil engineer, (2) engineer shortage

The engineer will repair my telephone tomorrow morning.

### dismay

n. a feeling of discouragement, distress, or anxiety caused by something unexpected or unwelcome; a sudden loss of courage or confidence

synonym: distress, discouragement, consternation

(1) flop down in dismay, (2) feel dismay

The employees expressed their **dismay** at the sudden announcement of massive layoffs.

### discovery

 the act or process of finding information, a place, or an object, or learning about something that was previously not known

synonym: finding, uncovering, detection

(1) a scientific discovery, (2) the great discovery of the

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Her research team made an important discovery.

### pound

- the standard unit of money in the UK; the standard unit of weight equal to 16 ounces
- (1) three-fourths of a **pound**, (2) thousands of **pounds**. The car's front bumper cost fifteen hundred **pounds**.

#### steel

 a strong metal alloy made up of iron with typically a few tenths of a percent of carbon used for making things that need a strong structure

*synonym*: iron

(1) magnetic **steel**, (2) **steel** beam

This bridge is the third largest **steel** bridge in the world.

### copper

- a chemical element that is a soft, malleable, and ductile metal with very high thermal and electrical conductivity
- (1) **copper** alloy, (2) **copper** belt

He made the old **copper** coins shine.

#### nickel

 a silver-white metallic element with the symbol Ni, used in many alloys and as a coin; a United States coin worth one-twentieth of a dollar

synonym: metal, coin, alloy

(1) nickel ore, (2) nickel plate

The **nickel** in my pocket jingled as I walked.

### advance

- v. to go or move forward; to develop in a positive way synonym: progress, boost, come along
- (1) **advance** the technology, (2) **advance** a cooperative relationship

Scientific knowledge will **advance** significantly with the power of AI.

#### mineral

- a solid inorganic substance occurring in nature having a definite chemical composition
- (1) vitamin and minerals, (2) mineral rights

The robust economy of the country is based on its **mineral** resources.

#### extract

a short passage taken from a book, piece of music, etc.;
 a substance obtained from something through a specific process; (verb) to obtain from something or to remove something by effort or force

synonym: excerpt, quote, distillation

(1) a brief **extract** from the book, (2) botanical **extract** Anesthetize the gum before **extracting** the teeth.

### royal

adj. relating to or belonging to the king or queen or a member of their family

synonym: imperial, noble, aristocratic

(1) a royal palace, (2) prince royal

She is willing to give up her position in the **royal** family to marry him.

### vague

adj. not clearly expressed or understood

*synonym*: ambiguous, imprecise, dim

(1) vague idea, (2) make a vague answer

The vague rumor turned out to be false.

### unfortunately

adv. by bad luck; unluckily

synonym: regrettably, unluckily, alas

(1) **unfortunately** caught in a shower, (2) even more **unfortunately** 

The treatments were done but, **unfortunately**, were unsuccessful.

### emerge

v. to move out of or away from something and become visible

synonym: arise, occur, appear

(1) **emerge** as a butterfly, (2) **emerge** from poverty During colonial eras, new migratory patterns **emerged**.

ray

- n. a narrow line of light, heat, or another form of energysynonym: beam, light, glimmer
- (1) opaque to X- rays, (2) effect of cosmic rays Gamma rays penetrate body tissues and cause cell damage.

poster

nag

 a large sheet or picture that is placed either on a public space to promote or announce something or on a wall to decorate it

synonym: banner, billboard, sign

- (1) eye-catching **posters**, (2) a wanted **poster** We noticed a **poster** advertising a bargain.
- v. to annoy or irritate someone persistently with repeated complaints, requests, or criticism; (noun) an old or over-worked horse

synonym: hassle, bother, badger

(1) **nag** about the minor thing, (2) **nag** political leaders

She couldn't stop **nagging** her husband to take out the trash.

crease

 a line or mark made by folding or wrinkling a surface or material; a slight ridge or fold in fabric or paper caused by pressing or folding

synonym: fold, wrinkle, ridge

(1) crease in fabric, (2) deep crease

The shirt had a noticeable **crease** along the sleeve from being folded.

limestone

*n.* a sedimentary rock that is composed mainly of calcium carbonate, which is the mineral calcite

synonym: calcareous rock, chalk

(1) sheer **limestone** cliffs, (2) **limestone** pavement The Great Pyramid of Giza was built using blocks of **limestone**.

creature

n. a living being, especially an animal

synonym: being, animal, organism

(1) creature of habit, (2) artificial creature

The deep sea **creature** was unlike anything the scientists had ever seen before.

### atmosphere

n. the mass of air that surrounds the Earth; the pervading tone or mood of a place, situation, or creative work

synonym: air, ambiance, circumstances

(1) carbon dioxide in the **atmosphere**, (2) a convivial **atmosphere** 

The spaceship began to burn up as it approached the Earth's **atmosphere**.

### geology

 a science that deals with the history of the earth as recorded in rocks

synonym: earth science

 bureau of geology, (2) local geology
 He was a visiting geology professor at the University of Tokyo.

### terrific

adj. causing terror or fear; extremely great or intense; very good or excellent

synonym: fantastic, great, excellent

(1) absolutely **terrific**, (2) at a **terrific** speed The view from the top of the mountain was **terrific**, with sweeping vistas of the valley below.

### decoration

n. the act of adding something that is intended to make something more attractive; an award or honor that is given to someone in recognition of their achievements

synonym: adornment, ornament, embellishment

(1) colorful **decorations**, (2) chocolate **decorations** for cakes

The room was filled with beautiful **decorations** for the wedding reception.

### miner

n. a person who works in a mine (= excavation in the Earth from which ores and minerals are extracted), especially one who extracts coal, minerals, or precious metals from

### the Earth

synonym: digger, excavator, miner

(1) miner strike, (2) miner industry

The coal **miner** worked tirelessly to extract valuable minerals from deep underground.

#### attraction

a sense of like someone, particularly sexually;
 something that causes individuals to desire to go to a specific area or do a specific activity

synonym: allure, appeal, interest

(1) the big **attraction** of the event, (2) popular tourist **attraction** 

She felt an instant attraction toward him.

### compete

v. to strive to achieve more success than someone or something

synonym: contend, contest, vie

(1) **compete** against a friend, (2) **compete** fiercely You must **compete** with others to obtain this position.

### operate

- v. to work in a particular way; to supervise something synonym: work, use, employ
- (1) **operate** 24 hours a day, (2) manually **operate** a machine

This machine is too difficult to **operate** for me.

ore

 a naturally occurring mineral or rock from which a valuable substance, typically a metal, can be extracted through mining or other extraction methods

synonym: mineral deposit, rock

(1) gold **ore**, (2) copper **ore** 

The mine produces high-quality iron **ore**.

### drag

v. to pull or haul with force

synonym: haul, pull, draw

(1) drag a chair over, (2) drag a team down

He **dragged** the heavy suitcase behind him as he walked.

### component

 one of several parts that combines with others to form something bigger

synonym: element, part, factor

(1) key **component**, (2) spare **components** for cars

The researchers try to discover a common **component** in all types of successful organizations.

### undergraduate

- n. a student who is studying for their first degree at a university or other higher education institutionsynonym: college student, freshman
- (1) engineering **undergraduate**, (2) **undergraduate** course The class was composed of both **undergraduate** and graduate students.

### metallurgy

- n. a branch of materials science and engineering that stands at metals' physical and chemical properties, their compounds with other metals, and their mixtures, called alloys.
- (1) nickel **metallurgy**, (2) welding **metallurgy** He taught engineering and **metallurgy** classes.

#### useless

adj. not serving any useful purpose; having no practical result

synonym: ineffectual, unhelpful, worthless

(1) **useless** information, (2) **useless** in the kitchen The old, rusty tools were now **useless** and had to be thrown away.

#### woodcut

- n. a print made by cutting a design into a block of wood and then inking the surface and pressing it onto paper synonym: print, engraving, relief
- woodcut printing, (2) woodcut block
   The museum had an exhibition of famous artists' woodcuts.

#### bellows

n. a device consisting of a bag or chamber with flexible sides that is expanded and contracted to draw in air through a valve and then force it out through a tube; a device used to blow air into a fire to make it burn more intensely

synonym: blower, puffer, blaster

(1) **bellows** pump, (2) blow a **bellows** 

The blacksmith's apprentice operated the **bellows** to maintain the forge's heat.

### patent

 a legal document that grants an inventor exclusive rights to their invention for a certain period of time; the invention or process for which a patent has been granted

synonym: copyright, trademark, license

(1) patent application, (2) patent law

The company has filed for a **patent** to protect its new invention.

### 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.

### **furnace**

 an enclosed chamber for heating metal or glass to very high temperatures

*synonym*: incinerator

electrical furnace,
 gas-fired furnace
 the furnace, the metal gleamed with radiance.

### microwave

n. a form of electromagnetic radiation with wavelengths ranging from about one millimeter to one meter and frequencies between 300 MHz (0.3 GHz) and 300 GHz; an electric oven that cooks food by exposing it to high-frequency electromagnetic radiation, which causes the food molecules to vibrate and heat up quickly

synonym: oven, waveguide, radar range

(1) **microwave** radiation, (2) **microwave** popcorn

I heated my leftover food in the **microwave** oven, which tasted just as good as freshly cooked.

### 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.
- v. to withdraw from one's position or occupation, especially because of age

synonym: relinquish, step down, withdraw

(1) **retire** voluntarily, (2) **retire** after four terms

After working for the company for 30 years, she decided to **retire** from her job.

### acidic

retire

adj. having a pH lower than 7; having characteristics of an acid, such as tasting sour or corroding metal

synonym: sour, tart, acrid

(1) acidic solution, (2) acidic taste

The soil in this region is too **acidic** for most crops to grow well.

### dissolve

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

synonym: disband, disappear, liquefy

- (1) **dissolve** the sugar, (2) officially **dissolved** the marriage The political party **dissolved** after much internal fighting.
- single-celled or noncellular spherical or spiral or rod-shaped organisms that exist in large numbers in the

#### bacteria

air, water, and soil, and also in living and dead creatures and plants, and are often a cause of disease

synonym: microorganism, microbe

 pathogenic bacteria, (2) harmless bacteria
 Bacteria prevalent in hospitals are often resistant to antibiotics.

toxic

adj. of or relating to or caused by a poison; poisonoussynonym: poisonous, harmful, contaminated

(1) **toxic** molecule, (2) exposure to **toxic** chemicals

This chemical compound is a thousand-fold more **toxic**.

isle

- n. a small island, especially one in the seasynonym: island, atoll, cay
- (1) **isle** of paradise, (2) tiny **isle**I love to spend my vacations on a beautiful **isle** with pristine beaches.

cast

- v. to cause light or shadow to appear on a surface; to assing or choose someone such as an actor or representative, especially by selection process
- (1) cast a ballot, (2) cast a charming eye

synonym: throw, project, select

This accident **cast** a dark shadow over their lives.

metal

n. a solid material that is typically hard, shiny, malleable, fusible, and ductile, with good electrical and thermal conductivity, and often used as a structural material, a conductor of heat or electricity, or for decorative purposes

synonym: alloy, metalloid

(1) metal fabrication, (2) precious metal

The construction worker used a **metal** saw to cut through the stubborn sheet metal.

insulate

to protect something by interposing material that prevents heat, noise, electricity, etc.

synonym: isolate, protect, seclude

(1) **insulate** the room from sound, (2) **insulate** electricity We had our bedroom **insulated** before winter came.

### 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.

### define

 to state or explain precisely the nature, scope, or meaning of something

synonym: characterize, depict, express

(1) **define** a word, (2) **define** my position

To advance this discussion, we must **define** "success" rigorously.

### feat

*n.* a notable or impressive achievement, especially one that requires great skill or bravery

synonym: achievement, accomplishment, exploit

(1) intellectual feat, (2) feat accomplishment

It is an incredible **feat** to climb Mount Everest, the highest mountain in the world.

#### electrical

adj. relating to electricity

(1) an **electrical** storm, (2) degree in **electrical** engineering Actuators convert **electrical** pulses into motion.

### convince

v. to persuade someone or make someone believe that something is true

synonym: persuade, win over, convert

(1) **convince** her to go with us, (2) **convince** an opponent I am considering what I should do to **convince** him.

#### fantastic

adj. extremely good; excellentsynonym: incredible, unbelievable, marvelous

(1) a **fantastic** dress, (2) absolutely **fantastic** event The new amusement park ride was **fantastic**, with twists, turns, and drops that left riders screaming with excitement.

rig

jug

to prepare or set up something in a certain way, typically in a carefully planned or fraudulent manner; to equip with sails or masts

synonym: set up, prepare, arrange

- (1) **rig** an election, (2) **rig** a ship with new sails He **rigged** the game so he could win the prize.
- a container with a handle and spout used for pouring liquids, typically made of ceramics, glass, or metal; (verb) to cook something slowly in a covered container

synonym: pitcher, carafe, decanter

(1) ceramic jug, (2) jug of beer

She filled the **jug** with ice-cold water from the fridge.

### obvious

adj. easy to see, discover or understand synonym: apparent, conspicuous, evident

(1) **obvious** reasons, (2) his conclusion was **obvious** There are **obvious** differences between the two wine-producing regions.

#### convinced

adj. completely certain about something; having a strong belief or conviction in a particular religion

synonym: confident, positive, indoctrinated

(1) **convinced** of the idea, (2) **convinced** criminal The public is **convinced** that the prime minister has committed fraud.

#### starch

 a complex carbohydrate found in many plants, including rice, wheat, and potatoes that is an important foodstuff for humans and animals

synonym: carbohydrate, glucose, dextrin

(1) starch granules, (2) potato starch

When heated, **starch** molecules absorb water and become thick and gooey, making it a useful thickening agent in cooking.

attempt

 an act or effort of trying to do something, especially something difficult

synonym: endeavor, effort, try

(1) the **attempt** to rescue the hostages, (2) a reckless **attempt** 

The third attempt was far more successful.

mold

n. a hollow container used to give shape to liquid or soft substance, which then becomes solid in the same shape as the container; a soft, green, or gray growth that forms on stale food or objects exposed to warm, moist air for too long

synonym: cavity, cast, mildew

(1) a casting mold, (2) mold allergy

Mushrooms and mold are fungi.

trunk

- n. the main stem or body of a tree which its branches grow synonym: body, chest, torso
- (1) the **trunk** of the tree, (2) the **trunk** of the body

  Destructive fungi thrive in moist environments, such as those seen in wounds on the **trunk**.

snail

 a slow-moving mollusk with a spiral shell that it uses to protect its body

synonym: escargot, slug, whelk

(1) snail mail, (2) snail pace

The gardener found a **snail** slowly making its way through the lettuce patch.

hydrolyze

 to break down or decompose a compound or substance by a chemical reaction with water, often resulting in the separation of its components synonym: dissolve, decompose, break down

(1) **hydrolyze** a chemical compound, (2) **hydrolyze** starch with enzymes

The research team seeks more efficient methods to **hydrolyze** cellulose into its glucose components.

### despair

 the feeling that there is no hope and you cannot do anything to improve a difficult situation

synonym: dismay, anguish, misery

despair at the future, (2) untold despair
 His friend's death drove him to despair.

### decide

- to make up someone's mind about something; to come to a conclusion or judgment after considering options
   synonym: choose, determine, settle
- (1) **decide** a question, (2) **decide** on a course of action She couldn't **decide** whether to order the pizza or the pasta for dinner.

### lateral

adj. relating to or situated on the side; moving or extending sideways; involving or relating to the transfer of information or responsibilities between individuals or departments within an organization

*synonym*: side, sideways, horizontal

(1) **lateral** communication, (2) **lateral** incisor

The **lateral** movement of the car caused it to skid off the road.

### geologist

- n. a scientist or specialist who studies geology
- (1) planetary **geologist**, (2) marine **geologist**These issues baffled **geologists** for many years.

#### christen

v. to give a name to a baby at a Christian ceremony to welcome them into the Christian Church

synonym: baptize, name, initiate

(1) christen a child, (2) christen the baby at the baptism

The newborn baby was **christened** in a ceremony at the church.

### debate

n. a formal discussion or argument of opposing viewpoints, often to persuade others to adopt a specific position; a public discussion, often on an issue of current interest, in which participants offer opinions and differing perspectives

synonym: argument, discussion, dispute

(1) debate topic, (2) debate competition

The **debate** over climate change continues to be a hot topic in politics.

### epoch

- 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.

### shift

- n. a slight transition in position, direction, or trendsynonym: transition, change, modification
- (1) Doppler **shift**, (2) major paradigm **shift** Could you help me **shift** some furniture?

### stratum

 a layer or level of something, usually referring to a layer of rock or soil in the Earth's crust

synonym: layer, level, tier

(1) social **stratum**, (2) **stratum** corneum

The geologist identified a new **stratum** of rock through his research.

### suddenly

adv. quickly and unexpectedly

synonym: abruptly, unexpectedly, unawares

(1) **suddenly** attacked by an enemy, (2) die **suddenly** Who answers **suddenly** knows little.

### 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.

#### 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.

#### bomb

 a weapon that explodes and is used to kill or injure people or to cause damage to something

synonym: missile, explosive, ammunition

(1) atomic **bombs**, (2) disarm the **bomb** 

The use of cluster **bombs** is strictly prohibited by international law.

### extinction

- *n*. the complete disappearance of a species from the earth *synonym*: disappearance, eradication, annihilation
- (1) **extinction** prevention, (2) brink of **extinction**

The **extinction** of the dinosaurs is thought to have been caused by an asteroid impact.

#### fossil

 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.

### disappear

v. to cease to exist or be visiblesynonym: fade, evaporate, vanish

(1) **disappear** without a trace, (2) **disappear** after a week They watched the train **disappear** into the distance.

### synthetic

adj. made by combining chemical substances as opposed to being naturally occurring

synonym: artificial, manufactured, fabricated

(1) synthetic fiber, (2) synthetic fertilizer

**Synthetic** diamonds play an essential role as machine tool blades.

### polymer

- a substance composed of macromolecules (= large groups of atoms) made from many smaller and simpler molecules
- (1) **polymer** fiber, (2) biological **polymer**We are developing plant-derived **polymers** to reduce environmental impact.

### embedded

adj. fixed firmly into the surface of somethingsynonym: ingrained, implanted, inserted

(1) embedded systems, (2) LED- embedded glass
The embedded chip in my credit card allows me to make contactless payments.

### modern

adj. of or belonging to the present time or recent timessynonym: contemporary, stylish, current

(1) **modern** poetry, (2) pre- **modern** agricultural society Their headquarters are in a **modern** skyscraper.

axion

 a hypothetical elementary particle that is a constituent of dark matter and has properties similar to those of neutrinos but with a much greater mass

synonym: particle, quantum, fermion

(1) axion particle, (2) axion mass

The **axion** field is believed to have an impact on the development of the universe.

### recycle

v. to sort and collect things to process them and produce valuable materials that can be used again

synonym: reclaim, reuse, reprocess

(1) **recycle** the cardboard boxes, (2) **recycle** milk packaging into new paper

We largely **recycle** the circuit board of cell phones because they contain a lot of valuable metals.

### electronics

 the branch of physics and technology that deals with the behavior and control of electrons and the use of electronic devices and systems

synonym: technology, gadgets, circuitry

(1) **electronics** industry, (2) **electronics** store

The company specializes in manufacturing and selling cutting-edge **electronics**.

### landfill

- n. a site for the disposal of waste materialssynonym: dump, trash-yard, waste-yard
- (1) disposal in a **landfill**, (2) **landfill** sites

  This country faces problems in finding enough suitable **landfill** sites.

### insulation

 the act or process of covering something to stop heat, sound, electricity, etc. from passing through; the materials used for this

synonym: cushioning, covering, nonconductor

(1) additional sound **insulation**, (2) **insulation** board He installed fiberglass **insulation** in the wall.

### insistent

 adj. characterized by a persistent and forceful demand or urging; unyielding or uncompromising in one's position or viewpoint; persistent in pursuit of a goal or objective

synonym: demanding, persistent, assertive

(1) insistent tone, (2) insistent demand

The **insistent** chatter from the other room made it impossible for her to focus on her work.

#### hack

v. to hit and cut somebody or something roughly and violently; to find a bug in a computer program and break into their systems or networks

synonym: cut, chop, crack

- (1) **hack** through the jungle, (2) **hack** into the program This blog offers a variety of tips for **hacking** everyday life.
- v. to move one's hand or an object over the surface of something with pressure

synonym: scrub, massage, stroke

(1) **rub** shoulders, (2) **rub** a glass window

She **rubbed** the sore spot on her leg to ease the pain.

volt

rub

 a unit of measurement for electrical potential difference or electromotive force, equal to the force required to move one ampere of electric charge through one ohm of resistance

synonym: electric potential, V

(1) **volt** meter, (2) 12- **volt** battery

The battery has a low **volt** output, insufficient to power the device.

#### homemade

adj. made at home rather than in a factory or workshop synonym: self-made

(1) homemade article, (2) homemade breadI prefer homemade cookies over store-bought ones.

melt

v. to turn from something solid into something soft or liquid as a result of heating

synonym: disintegrate, soften, disappear

(1) melt the ice, (2) melt down gold

Her resistance **melted** under his persuasion.

### partial

adj. not complete; fragmentary; favoring somebody or something very much

synonym: limited, incomplete, partisan

(1) partial withdrawal, (2) partial knowledge

Although some progress had been made, the study's findings were **partial**.

# **Session 2: Spelling**

1.	effect of cosmic r_ys	n.	a narrow line of light, heat, or another form of energy
2.	der at the future	n.	the feeling that there is no hope and you cannot do anything to improve a difficult situation
3.	suly attacked by an enemy	adv.	quickly and unexpectedly
4.	inson board	n.	the act or process of covering something to stop heat, sound, electricity, etc. from passing through; the materials used for this
5.	mir strike	n.	a person who works in a mine (= excavation in the Earth from which ores and minerals are extracted), especially one who extracts coal, minerals, or precious metals from the Earth
6.	chen the baby at the baptism	<i>v</i> .	to give a name to a baby at a Christian ceremony to welcome them into the Christian Church
7.	mor an exam	<i>v</i> .	to observe, check, and track the progress or quality of something over a period of time
8.	pote the countryside	ν.	to inhabit or occupy a particular area, region, or environment with a certain number or type of people, animals, or plants; to fill out or complete a form, document, or database with relevant

ANSWERS: 1. ray, 2. despair, 3. suddenly, 4. insulation, 5. miner, 6. christen, 7. monitor, 8. populate

information

9.	ie of paradise	n.	a small island, especially one in the sea
10.	mir industry	n.	a person who works in a mine (= excavation in the Earth from which ores and minerals are extracted), especially one who extracts coal, minerals, or precious metals from the Earth
11.	niI ore	n.	a silver-white metallic element with the symbol Ni, used in many alloys and as a coin; a United States coin worth one-twentieth of a dollar
12.	eph-making event	n.	a particular period of time, usually marked by significant events or developments; a division of geologic time
13.	ine him to write a novel	v.	to make somebody fill with the desire, confidence, or enthusiasm, especially to do something creative
14.	trrm heat into power	<i>v</i> .	to change in outward structure or looks;
15.	feel diy	n.	a feeling of discouragement, distress, or anxiety caused by something unexpected or unwelcome; a sudden loss of courage or confidence
16.	ree the trend	v.	to change something's direction, order, position, decision, etc., to the opposite one; (adjective) directed or moving toward the rear
17.	by emotion	<i>v</i> .	to place a dead body in the ground, grave, or tomb
18.	absolutely faic event	adj.	extremely good; excellent

ANSWERS: 9. isle, 10. miner, 11. nickel, 12. epoch, 13. inspire, 14. transform, 15. dismay, 16. reverse, 17. bury, 18. fantastic

19.	double quon marks	n.	a group of words taken from a text or speech and repeated by someone other than the original author or speaker
20.	chocolate decons for cakes	n.	the act of adding something that is intended to make something more attractive; an award or honor that is given to someone in recognition of their achievements
21.	maI place	adj.	produced by or containing supernatural powers
22.	mt down gold	ν.	to turn from something solid into something soft or liquid as a result of heating
23.	n_g political leaders	ν.	to annoy or irritate someone persistently with repeated complaints, requests, or criticism; (noun) an old or over-worked horse
24.	ade the technology	<i>v</i> .	to go or move forward; to develop in a positive way
25.	md allergy	n.	a hollow container used to give shape to liquid or soft substance, which then becomes solid in the same shape as the container; a soft, green, or gray growth that forms on stale food or objects exposed to warm, moist air for too long
26.	coed of the idea	adj.	completely certain about something; having a strong belief or conviction in a particular religion
27.	ase an important role	<i>v</i> .	to think or accept something to be true without having proof of it; to take or begin to have power; to begin to exhibit a specific quality or appearance

ANSWERS: 19. quotation, 20. decoration, 21. magical, 22. melt, 23. nag, 24. advance, 25. mold, 26. convinced, 27. assume

28.	a foI leaf	n.	any preserved remains, impression, or trace of any once-living thing that has become hard and turned into rock
29.	hode article	adj.	made at home rather than in a factory or workshop
30.	coce an opponent	ν.	to persuade someone or make someone believe that something is true
31.	pat law	n.	a legal document that grants an inventor exclusive rights to their invention for a certain period of time; the invention or process for which a patent has been granted
32.	chen a child	ν.	to give a name to a baby at a Christian ceremony to welcome them into the Christian Church
33.	an eleal storm	adj.	relating to electricity
34.	axn particle	n.	a hypothetical elementary particle that is a constituent of dark matter and has properties similar to those of neutrinos but with a much greater mass
35.	deep cre	n.	a line or mark made by folding or wrinkling a surface or material; a slight ridge or fold in fabric or paper caused by pressing or folding
36.	dg a chair over	<i>v</i> .	to pull or haul with force
37.	major paradigm sht	n.	a slight transition in position, direction, or trend
38.	his conclusion was obs	adj.	easy to see, discover or understand

ANSWERS: 28. fossil, 29. homemade, 30. convince, 31. patent, 32. christen, 33. electrical, 34. axion, 35. crease, 36. drag, 37. shift, 38. obvious

39.	marine gest	n.	a scientist or specialist who studies geology
40.	post-modern eph	n.	a particular period of time, usually marked by significant events or developments; a division of geologic time
41.	prve society	adj.	of or relating to an early stage of society with no industry or technological development; simple, naive, or old-fashioned in style
42.	gas-fired fue	n.	an enclosed chamber for heating metal or glass to very high temperatures
43.	lall sites	n.	a site for the disposal of waste materials
44.	cod a battery	n.	authority, control, or mastery over something, often referring to military or leadership contexts; a directive, order, or instruction; expertise or confidence in a specific area; (verb) to give an authoritative order or instruction, or to be in charge or control of something
45.	a scientific diry	n.	the act or process of finding information, a place, or an object, or learning about something that was previously not known
46.	12-vt battery	n.	a unit of measurement for electrical potential difference or electromotive force, equal to the force required to move one ampere of electric charge through one ohm of resistance

ANSWERS: 39. geologist, 40. epoch, 41. primitive, 42. furnace, 43. landfill, 44. command, 45. discovery, 46. volt

47.	local ho	n.	a person who is admired or idealized for courage, outstanding achievements, or noble qualities; a character in literature or history who is central to the plot and who exhibits heroic qualities
48.	prince roI	adj.	relating to or belonging to the king or queen or a member of their family
49.	decision-making prs	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
50.	acc solution	adj.	having a pH lower than 7; having characteristics of an acid, such as tasting sour or corroding metal
51.	use of nur power	adj.	of or relating to or constituting the nucleus of an atom; deriving destructive energy from the release of atomic energy
52.	artificial crre	n.	a living being, especially an animal
53.	manually ope a machine	v.	to work in a particular way; to supervise something
54.	degree in eleal engineering	adj.	relating to electricity
55.	at a teic speed	adj.	causing terror or fear; extremely great or intense; very good or excellent
56.	ct a charming eye	ν.	to cause light or shadow to appear on a surface; to assing or choose someone such as an actor or representative, especially by selection process

ANSWERS: 47. hero, 48. royal, 49. process, 50. acidic, 51. nuclear, 52. creature, 53. operate, 54. electrical, 55. terrific, 56. cast

57.	engineering undate	n.	a student who is studying for their first degree at a university or other higher education institution
58.	ree milk packaging into new paper	ν.	to sort and collect things to process them and produce valuable materials that can be used again
59.	exposure to toc chemicals	adj.	of or relating to or caused by a poison; poisonous
60.	j_g of beer	n.	a container with a handle and spout used for pouring liquids, typically made of ceramics, glass, or metal; (verb) to cook something slowly in a covered container
61.	r_b a glass window	<i>v</i> .	to move one's hand or an object over the surface of something with pressure
62.	local gey	n.	a science that deals with the history of the earth as recorded in rocks
63.	elliptic gay	n.	an independent group of stars, interstellar gas, dark matter, etc., in the universe, bound together by gravity
64.	innt demand	adj.	characterized by a persistent and forceful demand or urging; unyielding or uncompromising in one's position or viewpoint; persistent in pursuit of a goal or objective
65.	ree after four terms	<i>v</i> .	to withdraw from one's position or occupation, especially because of age
66.	the traion of a tadpole into a frog	n.	a complete change in form, nature, or appearance of someone or something

ANSWERS: 57. undergraduate, 58. recycle, 59. toxic, 60. jug, 61. rub, 62. geology, 63. galaxy, 64. insistent, 65. retire, 66. transformation

67. pote the spreadsheet	v.	to inhabit or occupy a particular area, region, or environment with a certain number or type of people, animals, or plants; to fill out or complete a form, document, or database with relevant information
68. dee topic	n.	a formal discussion or argument of opposing viewpoints, often to persuade others to adopt a specific position; a public discussion, often on an issue of current interest, in which participants offer opinions and differing perspectives
69. cor alloy	n.	a chemical element that is a soft, malleable, and ductile metal with very high thermal and electrical conductivity
70. n_g about the minor thing	v.	to annoy or irritate someone persistently with repeated complaints, requests, or criticism; (noun) an old or over-worked horse
71. r_b shoulders	<i>v</i> .	to move one's hand or an object over the surface of something with pressure
72. hike a ride	v.	to obtain a ride in a passing vehicle by signaling to the driver or waving one's thumb; to travel by getting a free ride in someone else's vehicle
73. vier community	n.	a person who lives in a village or small rural community; a person who is part of a close-knit and traditional community
74. a casting md	n.	a hollow container used to give shape to liquid or soft substance, which then becomes solid in the same shape as the container; a soft, green, or gray growth that forms on stale food or

ANSWERS: 67. populate, 68. debate, 69. copper, 70. nag, 71. rub, 72. hitchhike, 73. villager, 74. mold

too long

objects exposed to warm, moist air for

75.	r_g a ship with new sails	<i>v</i> .	to prepare or set up something in a certain way, typically in a carefully planned or fraudulent manner; to equip with sails or masts
76.	colorful decons	n.	the act of adding something that is intended to make something more attractive; an award or honor that is given to someone in recognition of their achievements
77.	gold o_e	n.	a naturally occurring mineral or rock from which a valuable substance, typically a metal, can be extracted through mining or other extraction methods
78.	bay noticeable	adv.	just enough; hardly; with great difficulty or effort
79.	sheer line cliffs	n.	a sedimentary rock that is composed mainly of calcium carbonate, which is the mineral calcite
80.	elfy a manufacturing process	ν.	to make a machine or system work by using electricity; to make someone extremely enthusiastic about or interested in something
81.	miI rights	n.	a solid inorganic substance occurring in nature having a definite chemical composition
82.	LED-emed glass	adj.	fixed firmly into the surface of something
83.	indal alcohol	adj.	of or relating to or resulting from industry

ANSWERS: 75. rig, 76. decoration, 77. ore, 78. barely, 79. limestone, 80. electrify, 81. mineral, 82. embedded, 83. industrial

84.	opaque to X-r_ys	<i>n</i> .	a narrow line of light, heat, or another form of energy
85.	die suly	adv.	quickly and unexpectedly
86.	even more unfely	adv.	by bad luck; unluckily
87.	biological por	n.	a substance composed of macromolecules (= large groups of atoms) made from many smaller and simpler molecules
88.	dee a question	<i>v</i> .	to make up someone's mind about something; to come to a conclusion or judgment after considering options
89.	radve decay	adj.	emitting powerful and dangerous energy when the nuclei (= central parts) of atoms are broken up
90.	bay finished	adv.	just enough; hardly; with great difficulty or effort
91.	laI communication	adj.	relating to or situated on the side; moving or extending sideways; involving or relating to the transfer of information or responsibilities between individuals or departments within an organization
92.	nur fusion	adj.	of or relating to or constituting the nucleus of an atom; deriving destructive energy from the release of atomic energy
93.	crre of habit	n.	a living being, especially an animal
94.	Doppler sht	n.	a slight transition in position, direction, or trend

ANSWERS: 84. ray, 85. suddenly, 86. unfortunately, 87. polymer, 88. decide, 89. radioactive, 90. barely, 91. lateral, 92. nuclear, 93. creature, 94. shift

95.	hyze starch with enzymes	<i>v</i> .	to break down or decompose a compound or substance by a chemical reaction with water, often resulting in the separation of its components
96.	brink of exton	n.	the complete disappearance of a species from the earth
97.	elecs store	n.	the branch of physics and technology that deals with the behavior and control of electrons and the use of electronic devices and systems
98.	social stm	n.	a layer or level of something, usually referring to a layer of rock or soil in the Earth's crust
99.	vitamin and mils	n.	a solid inorganic substance occurring in nature having a definite chemical composition
100	. innt tone	adj.	characterized by a persistent and forceful demand or urging; unyielding or uncompromising in one's position or viewpoint; persistent in pursuit of a goal or objective
101	. sch off a name	<i>v</i> .	to cut or damage the surface of something or the skin with a sharp or pointed object
102	. burning of foI fuels	n.	any preserved remains, impression, or trace of any once-living thing that has become hard and turned into rock
103	. unsung ho	n.	a person who is admired or idealized fo courage, outstanding achievements, or noble qualities; a character in literature or history who is central to the plot and who exhibits heroic qualities

ANSWERS: 95. hydrolyze, 96. extinction, 97. electronics, 98. stratum, 99. mineral, 100. insistent, 101. scratch, 102. fossil, 103. hero

104. acc taste	adj.	having a pH lower than 7; having characteristics of an acid, such as tasting sour or corroding metal
105. stm corneum	n.	a layer or level of something, usually referring to a layer of rock or soil in the Earth's crust
106. exton prevention	n.	the complete disappearance of a species from the earth
107. a stone wall sunds the palace	ν.	to be all around something or somebody
108. hk through the jungle	v.	to hit and cut somebody or something roughly and violently; to find a bug in a computer program and break into their systems or networks
109. intellectual ft	n.	a notable or impressive achievement, especially one that requires great skill or bravery
110. ener shortage	n.	a person whose job is designing, building, or maintaining something such as machines, structures, or software
111. dee my position	v.	to state or explain precisely the nature, scope, or meaning of something
112. obs reasons	adj.	easy to see, discover or understand
113. ase a lousy attitude to his boss	v.	to think or accept something to be true without having proof of it; to take or begin to have power; to begin to exhibit a specific quality or appearance
114. teccal advancement	adj.	based on scientific and industrial progress

ANSWERS: 104. acidic, 105. stratum, 106. extinction, 107. surround, 108. hack, 109. feat, 110. engineer, 111. define, 112. obvious, 113. assume, 114. technological

115. a wanted por	n.	a large sheet or picture that is placed either on a public space to promote or announce something or on a wall to decorate it
116. precious meI	n.	a solid material that is typically hard, shiny, malleable, fusible, and ductile, with good electrical and thermal conductivity, and often used as a structural material, a conductor of heat or electricity, or for decorative purposes
117. paI withdrawal	adj.	not complete; fragmentary; favoring somebody or something very much
118. potato sth	n.	a complex carbohydrate found in many plants, including rice, wheat, and potatoes that is an important foodstuff for humans and animals
119. bureau of gey	n.	a science that deals with the history of the earth as recorded in rocks
120. coed criminal	adj.	completely certain about something; having a strong belief or conviction in a particular religion
121. flop down in diy	n.	a feeling of discouragement, distress, or anxiety caused by something unexpected or unwelcome; a sudden loss of courage or confidence
122. pre-mon agricultural society	adj.	of or belonging to the present time or recent times
123. officially dived the marriage	v.	to be or cause to be absorbed by a liquid to form a part of the solution; to close down or dismiss

ANSWERS: 115. poster, 116. metal, 117. partial, 118. starch, 119. geology, 120. convinced, 121. dismay, 122. modern, 123. dissolve

124. Wiia article	n.	an online encyclopedia that allows users to contribute and edit articles collaboratively; a vast and frequently updated repository of information on a wide range of topics
125. r_g an election	<i>v</i> .	to prepare or set up something in a certain way, typically in a carefully planned or fraudulent manner; to equip with sails or masts
126. radve isotope	adj.	emitting powerful and dangerous energy when the nuclei (= central parts) of atoms are broken up
127. uss in the kitchen	adj.	not serving any useful purpose; having no practical result
128. slice of tot	n.	slices of bread browned on both sides that have been put near a high heat; a drink in honor of or to the health of a person or even
129. dee on a course of action	<i>v</i> .	to make up someone's mind about something; to come to a conclusion or judgment after considering options
130. pathogenic baia	n.	single-celled or noncellular spherical or spiral or rod-shaped organisms that exist in large numbers in the air, water, and soil, and also in living and dead creatures and plants, and are often a cause of disease
131. a rol palace	adj.	relating to or belonging to the king or queen or a member of their family
132. make a vae answer	adj.	not clearly expressed or understood

ANSWERS: 124. Wikipedia, 125. rig, 126. radioactive, 127. useless, 128. toast, 129. decide, 130. bacteria, 131. royal, 132. vague

133. snl pace	n.	a slow-moving mollusk with a spiral shell that it uses to protect its body
134. save the plt	n.	any of the nine large celestial bodies that circle in the solar system; any celestial body that revolves around a star
135. the big atton of the event	n.	a sense of like someone, particularly sexually; something that causes individuals to desire to go to a specific area or do a specific activity
136. sch my signature	ν.	to cut or damage the surface of something or the skin with a sharp or pointed object
137. a convivial atmre	n.	the mass of air that surrounds the Earth; the pervading tone or mood of a place, situation, or creative work
138. disposal in a lall	n.	a site for the disposal of waste materials
139. syic fiber	adj.	made by combining chemical substances as opposed to being naturally occurring
140. sle removal	n.	a thick, wet mixture of liquid and solid matter, typically one that is unpleasant or harmful
141. dee a word	v.	to state or explain precisely the nature, scope, or meaning of something
142. toc molecule	adj.	of or relating to or caused by a poison; poisonous
143. spare conts for cars	n.	one of several parts that combines with others to form something bigger

ANSWERS: 133. snail, 134. planet, 135. attraction, 136. scratch, 137. atmosphere, 138. landfill, 139. synthetic, 140. sludge, 141. define, 142. toxic, 143. component

144. absolutely teic	adj.	causing terror or fear; extremely great or intense; very good or excellent
145. the att to rescue the hostages	n.	an act or effort of trying to do something, especially something difficult
146. a reckless att	n.	an act or effort of trying to do something, especially something difficult
147. harmless baia	n.	single-celled or noncellular spherical of spiral or rod-shaped organisms that exist in large numbers in the air, water and soil, and also in living and dead creatures and plants, and are often a cause of disease
148. dg a team down	v.	to pull or haul with force
149. eye-catching pors	n.	a large sheet or picture that is placed either on a public space to promote or announce something or on a wall to decorate it
150. wot block	n.	a print made by cutting a design into a block of wood and then inking the surface and pressing it onto paper
151. three-fourths of a pod	n.	the standard unit of money in the UK; the standard unit of weight equal to 16 ounces
152. carbon dioxide in the atmre	n.	the mass of air that surrounds the Earth; the pervading tone or mood of a place, situation, or creative work
	ν.	to strive to achieve more success than

ANSWERS: 144. terrific, 145. attempt, 146. attempt, 147. bacteria, 148. drag, 149. poster, 150. woodcut, 151. pound, 152. atmosphere, 153. compete

154. ree the order	v.	to change something's direction, order, position, decision, etc., to the opposite one; (adjective) directed or moving toward the rear
155. drink a tot	n.	slices of bread browned on both sides that have been put near a high heat; a drink in honor of or to the health of a person or even
156. undate course	n.	a student who is studying for their first degree at a university or other higher education institution
157. a brief ext from the book	n.	a short passage taken from a book, piece of music, etc.; a substance obtained from something through a specific process; (verb) to obtain from something or to remove something by effort or force
158. syic fertilizer	adj.	made by combining chemical substances as opposed to being naturally occurring
159. nil plate	n.	a silver-white metallic element with the symbol Ni, used in many alloys and as a coin; a United States coin worth one-twentieth of a dollar
160. mt the ice	v.	to turn from something solid into something soft or liquid as a result of heating
161. mive radiation	n.	a form of electromagnetic radiation with wavelengths ranging from about one millimeter to one meter and frequencies between 300 MHz (0.3 GHz) and 300 GHz; an electric oven that cooks food by exposing it to high-frequency electromagnetic radiation, which causes the food molecules to vibrate and heat up quickly

ANSWERS: 154. reverse, 155. toast, 156. undergraduate, 157. extract, 158. synthetic, 159. nickel, 160. melt, 161. microwave

162. anng banner ad	adj.	making someone feel slightly angry
163. mel fabrication	n.	a solid material that is typically hard, shiny, malleable, fusible, and ductile, with good electrical and thermal conductivity, and often used as a structural material, a conductor of heat or electricity, or for decorative purposes
164. welding metgy	n.	a branch of materials science and engineering that stands at metals' physical and chemical properties, their compounds with other metals, and their mixtures, called alloys.
165. ceramic j_g	n.	a container with a handle and spout used for pouring liquids, typically made of ceramics, glass, or metal; (verb) to cook something slowly in a covered container
166. por fiber	n.	a substance composed of macromolecules (= large groups of atoms) made from many smaller and simpler molecules
167. coce her to go with us	<i>v</i> .	to persuade someone or make someone believe that something is true
168. disarm the bb	n.	a weapon that explodes and is used to kill or injure people or to cause damage to something
169. trrm an education system	<i>v</i> .	to change in outward structure or looks;
170. f_t accomplishment	n.	a notable or impressive achievement, especially one that requires great skill or bravery

ANSWERS: 162. annoying, 163. metal, 164. metallurgy, 165. jug, 166. polymer, 167. convince, 168. bomb, 169. transform, 170. feat

171. copper o_e	n.	a naturally occurring mineral or rock from which a valuable substance, typically a metal, can be extracted through mining or other extraction methods
172. line pavement	n.	a sedimentary rock that is composed mainly of calcium carbonate, which is the mineral calcite
173. coe fiercely	v.	to strive to achieve more success than someone or something
174. thousands of pods	n.	the standard unit of money in the UK; the standard unit of weight equal to 16 ounces
175. beginning of the indal revolution	adj.	of or relating to or resulting from industry
176. atomic bbs	n.	a weapon that explodes and is used to kill or injure people or to cause damage to something
177. former emr	n.	the male ruler of an empire
178. uss information	adj.	not serving any useful purpose; having no practical result
179. teccal policy	adj.	based on scientific and industrial progress
180. dive the sugar	v.	to be or cause to be absorbed by a liquid to form a part of the solution; to close down or dismiss
181. pat application	n.	a legal document that grants an inventor exclusive rights to their invention for a certain period of time; the invention or process for which a patent has been granted

ANSWERS: 171. ore, 172. limestone, 173. compete, 174. pound, 175. industrial, 176. bomb, 177. emperor, 178. useless, 179. technological, 180. dissolve, 181. patent

182. ade a cooperative relationship	<i>v</i> .	to go or move forward; to develop in a positive way
183. ope 24 hours a day	<i>v</i> .	to work in a particular way; to supervise something
184. diar without a trace	<i>v</i> .	to cease to exist or be visible
185. cre in fabric	n.	a line or mark made by folding or wrinkling a surface or material; a slight ridge or fold in fabric or paper caused by pressing or folding
186. axn mass	n.	a hypothetical elementary particle that is a constituent of dark matter and has properties similar to those of neutrinos but with a much greater mass
187. sth granules	n.	a complex carbohydrate found in many plants, including rice, wheat, and potatoes that is an important foodstuff for humans and animals
188. take a quon	n.	a group of words taken from a text or speech and repeated by someone other than the original author or speaker
189. ine a feeling of curiosity	ν.	to make somebody fill with the desire, confidence, or enthusiasm, especially to do something creative
190. sund a town	<i>v</i> .	to be all around something or somebody
191. tiny ie	n.	a small island, especially one in the sea
192. emed systems	adj.	fixed firmly into the surface of something

ANSWERS: 182. advance, 183. operate, 184. disappear, 185. crease, 186. axion, 187. starch, 188. quotation, 189. inspire, 190. surround, 191. isle, 192. embedded

193. cor belt	r
194. local vier	r
195. a faic dress	a
196. new design elts	n
197. elfy the audience	V
198. paI knowledge	a
199. by in the earth	ν
200. snI mail	n
201. ree the cardboard boxes	ν
202. prs improvement	n

- a chemical element that is a soft,
   malleable, and ductile metal with very
   high thermal and electrical conductivity
- a person who lives in a village or small rural community; a person who is part of a close-knit and traditional community
- adj. extremely good; excellent
- a fundamental or essential part of something
- to make a machine or system work by using electricity; to make someone extremely enthusiastic about or interested in something
- adj. not complete; fragmentary; favoring somebody or something very much
- v. to place a dead body in the ground, grave, or tomb
- a slow-moving mollusk with a spiral shell that it uses to protect its body
- v. to sort and collect things to process them and produce valuable materials that can be used again
- 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: 193. copper, 194. villager, 195. fantastic, 196. element, 197. electrify, 198. partial, 199. bury, 200. snail, 201. recycle, 202. process

203. the trk of the body	n.	the main stem or body of a tree which its branches grow
204. magnetic stI	n.	a strong metal alloy made up of iron with typically a few tenths of a percent of carbon used for making things that need a strong structure
205. inte the room from sound	ν.	to protect something by interposing material that prevents heat, noise, electricity, etc.
206. lal incisor	adj.	relating to or situated on the side; moving or extending sideways; involving or relating to the transfer of information or responsibilities between individuals or departments within an organization
207. a civil ener	n.	a person whose job is designing, building, or maintaining something such as machines, structures, or software
208. mor the data carefully	v.	to observe, check, and track the progress or quality of something over a period of time
209. dee competition	n.	a formal discussion or argument of opposing viewpoints, often to persuade others to adopt a specific position; a public discussion, often on an issue of current interest, in which participants offer opinions and differing perspectives
210. anng habit	adj.	making someone feel slightly angry
211. planetary gest	n.	a scientist or specialist who studies geology

ANSWERS: 203. trunk, 204. steel, 205. insulate, 206. lateral, 207. engineer, 208. monitor, 209. debate, 210. annoying, 211. geologist

212. Wiia entry	n.	an online encyclopedia that allows users to contribute and edit articles collaboratively; a vast and frequently updated repository of information on a wide range of topics
213. nickel metgy	n.	a branch of materials science and engineering that stands at metals' physical and chemical properties, their compounds with other metals, and their mixtures, called alloys.
214. botanical ext	n.	a short passage taken from a book, piece of music, etc.; a substance obtained from something through a specific process; (verb) to obtain from something or to remove something by effort or force
215. the trk of the tree	n.	the main stem or body of a tree which its branches grow
216. electrical fue	n.	an enclosed chamber for heating metal or glass to very high temperatures
217. mive popcorn	n.	a form of electromagnetic radiation with wavelengths ranging from about one millimeter to one meter and frequencies between 300 MHz (0.3 GHz) and 300 GHz; an electric oven that cooks food by exposing it to high-frequency electromagnetic radiation, which causes the food molecules to vibrate and heat up quickly
218. emr of Rome	n.	the male ruler of an empire

ANSWERS: 212. Wikipedia, 213. metallurgy, 214. extract, 215. trunk, 216. furnace, 217. microwave, 218. emperor

219. key cont	n.	one of several parts that combines with others to form something bigger
220. cod and control	n.	authority, control, or mastery over something, often referring to military or leadership contexts; a directive, order, or instruction; expertise or confidence in a specific area; (verb) to give an authoritative order or instruction, or to be in charge or control of something
221. wot printing	n.	a print made by cutting a design into a block of wood and then inking the surface and pressing it onto paper
222. plt like the Earth	n.	any of the nine large celestial bodies that circle in the solar system; any celestial body that revolves around a star
223. the great diry of the century	n.	the act or process of finding information, a place, or an object, or learning about something that was previously not known
224. blow a bes	n.	a device consisting of a bag or chamber with flexible sides that is expanded and contracted to draw in air through a valve and then force it out through a tube; a device used to blow air into a fire to make it burn more intensely
225. hike across the country	<i>v</i> .	to obtain a ride in a passing vehicle by signaling to the driver or waving one's thumb; to travel by getting a free ride in someone else's vehicle
ANSWERS: 219. component, 220. common discovery, 224. bellows, 225. hitchhike	and, i	221. woodcut, 222. planet, 223.

226. cast a traion spell	n.	a complete change in form, nature, or appearance of someone or something
227. inte electricity	v.	to protect something by interposing material that prevents heat, noise, electricity, etc.
228. vt meter	n.	a unit of measurement for electrical potential difference or electromotive force, equal to the force required to move one ampere of electric charge through one ohm of resistance
229. eme from poverty	<i>v</i> .	to move out of or away from something and become visible
230. artifact of a prve humankind	adj.	of or relating to an early stage of society with no industry or technological development; simple, naive, or old-fashioned in style
231. eme as a butterfly	<i>v</i> .	to move out of or away from something and become visible
232. maI powers	adj.	produced by or containing supernatural powers
233. hk into the program	v.	to hit and cut somebody or something roughly and violently; to find a bug in a computer program and break into their systems or networks
234. sle treatment	n.	a thick, wet mixture of liquid and solid matter, typically one that is unpleasant or harmful
235. stl beam	n.	a strong metal alloy made up of iron with typically a few tenths of a percent of carbon used for making things that need a strong structure

ANSWERS: 226. transformation, 227. insulate, 228. volt, 229. emerge, 230. primitive, 231. emerge, 232. magical, 233. hack, 234. sludge, 235. steel

236. untold der	n.	the feeling that there is no hope and you cannot do anything to improve a difficult situation
237. hode bread	adj.	made at home rather than in a factory or workshop
238. a gay of famous actors	n.	an independent group of stars, interstellar gas, dark matter, etc., in the universe, bound together by gravity
239. hyze a chemical compound	v.	to break down or decompose a compound or substance by a chemical reaction with water, often resulting in the separation of its components
240. elecs industry	n.	the branch of physics and technology that deals with the behavior and control of electrons and the use of electronic devices and systems
241. unfely caught in a shower	adv.	by bad luck; unluckily
242. popular tourist atton	n.	a sense of like someone, particularly sexually; something that causes individuals to desire to go to a specific area or do a specific activity
243. vae idea	adj.	not clearly expressed or understood
244. additional sound inson	n.	the act or process of covering something to stop heat, sound, electricity, etc. from passing through; the materials used for this
245. ct a ballot	v.	to cause light or shadow to appear on a surface; to assing or choose someone such as an actor or representative, especially by selection process

ANSWERS: 236. despair, 237. homemade, 238. galaxy, 239. hydrolyze, 240. electronics, 241. unfortunately, 242. attraction, 243. vague, 244. insulation, 245. cast

246. ree voluntarily
247. nonmetallic elts
248. mon poetry
249. diar after a week
250. bes pump

- v. to withdraw from one's position or occupation, especially because of age
- n. a fundamental or essential part of something
- adj. of or belonging to the present time or recent times
- v. to cease to exist or be visible
- n. a device consisting of a bag or chamber with flexible sides that is expanded and contracted to draw in air through a valve and then force it out through a tube; a device used to blow air into a fire to make it burn more intensely

ANSWERS: 246. retire, 247. element, 248. modern, 249. disappear, 250. bellows

## **Session 3: Fill in the Blanks**

1.	design has become more focused on human nature aspect than ever before.
adj	of or relating to or resulting from industry
2. v.	The political party after much internal fighting.  to be or cause to be absorbed by a liquid to form a part of the solution; to close down or dismiss
3. n.	The room was filled with beautiful for the wedding reception. the act of adding something that is intended to make something more attractive; an award or honor that is given to someone in recognition of their achievements
4. n.	The employees expressed their at the sudden announcement of massive layoffs.  a feeling of discouragement, distress, or anxiety caused by something unexpected or unwelcome; a sudden loss of courage or confidence
<b>5</b> . <i>v</i> .	The product developed through years of research continues to the market.  to make a machine or system work by using electricity; to make someone extremely enthusiastic about or interested in something
6. n.	The company specializes in manufacturing and selling cutting-edge  the branch of physics and technology that deals with the behavior and control of electrons and the use of electronic devices and systems
	SWERS: 1. Industrial, 2. dissolved, 3. decorations, 4. dismay, 5. electrify, 6. ctronics

7.	Scientific knowledge will significantly with the power of AI.
<i>v</i> .	to go or move forward; to develop in a positive way
8.	He the heavy suitcase behind him as he walked.
<i>v</i> .	to pull or haul with force
9.	The third was far more successful.
n.	an act or effort of trying to do something, especially something difficult
10.	He included a from the book in his essay.
n.	a group of words taken from a text or speech and repeated by someone other than the original author or speaker
11.	The use of cluster is strictly prohibited by international law.
n.	a weapon that explodes and is used to kill or injure people or to cause damage to something
12.	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
13.	She couldn't whether to order the pizza or the pasta for dinner.
<i>v</i> .	to make up someone's mind about something; to come to a conclusion or judgment after considering options
14.	These issues baffled for many years.
n.	a scientist or specialist who studies geology
	SWERS: 7. advance, 8. dragged, 9. attempt, 10. quotation, 11. bombs, 12. cess, 13. decide, 14. geologists

Vocab-Builder Ref from "Thomas Thwaites: How I built a toaster -- from scratch | TED Talk" (125 words)

ANSWERS: 30. despair, 31. element, 32. bellows, 33. populate, 34. discovery, 35. acidic, 36. melted, 37. rubbed

freshly cooked.
 a form of electromagnetic radiation with wavelengths ranging from about one millimeter to one meter and frequencies between 300 MHz (0.3 GHz) and 300 GHz; an electric oven that cooks food by exposing it to high-frequency electromagnetic radiation, which causes the food molecules to vibrate and heat up quickly

ANSWERS: 38. insulation, 39. convince, 40. annoying, 41. geology, 42. suddenly, 43. ore, 44. feat, 45. modern, 46. microwave

ANSWERS: 47. snail, 48. embedded, 49. sludge, 50. nuclear, 51. Wikipedia, 52. extracting, 53. trunk, 54. shift

55.	The spaceship began to burn up as it approached the Earth's
n.	the mass of air that surrounds the Earth; the pervading tone or mood of a place, situation, or creative work
56.	Gamma penetrate body tissues and cause cell damage.
n.	a narrow line of light, heat, or another form of energy
57.	There is plenty of space to everyone.
ν.	to place a dead body in the ground, grave, or tomb
58.	During colonial eras, new migratory patterns
ν.	to move out of or away from something and become visible
59.	The battery has a low output, insufficient to power the device.
n.	a unit of measurement for electrical potential difference or electromotive force, equal to the force required to move one ampere of electric charge through one ohm of resistance
60.	The in my pocket jingled as I walked.
n.	a silver-white metallic element with the symbol Ni, used in many alloys and as a coin; a United States coin worth one-twentieth of a dollar
61.	To advance this discussion, we must "success" rigorously.
ν.	to state or explain precisely the nature, scope, or meaning of something
62.	When heated, molecules absorb water and become thick and gooey, making it a useful thickening agent in cooking.
n.	a complex carbohydrate found in many plants, including rice, wheat, and potatoes that is an important foodstuff for humans and animals
	SWERS: 55. atmosphere, 56. rays, 57. bury, 58. emerged, 59. volt, 60. nickel, 61 ine, 62. starch

ANSWERS: 63. radioactive, 64. magical, 65. transformations, 66. steel, 67. furnace, 68. barely, 69. terrific, 70. landfill

71. The car's front bumper cost fifteen hundred
n. the standard unit of money in the UK; the standard unit of weight equal to 16 ounces
72. Mushrooms and are fungi.
n. a hollow container used to give shape to liquid or soft substance, which then becomes solid in the same shape as the container; a soft, green, or gray growth that forms on stale food or objects exposed to warm, moist air for too long
73. The company has filed for a to protect its new invention.
n. a legal document that grants an inventor exclusive rights to their invention for a certain period of time; the invention or process for which a patent has been granted
74. On three sides, mountains the settlement.
v. to be all around something or somebody
75. We noticed a advertising a bargain.
n. a large sheet or picture that is placed either on a public space to promote or announce something or on a wall to decorate it
76. The treatments were done but, were unsuccessful.
adv. by bad luck; unluckily
77. She had to to the nearest gas station when her car broke down.
v. to obtain a ride in a passing vehicle by signaling to the driver or waving one's thumb; to travel by getting a free ride in someone else's vehicle
78. The following example that the capacity of each battery is the same.
v. to think or accept something to be true without having proof of it; to take or begin to have power; to begin to exhibit a specific quality or appearance
ANSWERS: 71. pounds, 72. mold, 73. patent, 74. surround, 75. poster, 76. unfortunately, 77. hitchhike, 78. assumes

ANSWERS: 79. operate, 80. nagging, 81. hero, 82. insistent, 83. recycle, 84. metal, 85. command

ANSWERS: 86. polymers, 87. planet, 88. woodcuts, 89. rigged, 90. component, 91.

Bacteria, 92. toxic, 93. attraction

Vocab-Builder Ref from "Thomas Thwaites: How I built a toaster -- from scratch | TED Talk" (125 words)

102.	The robust economy of the country is based on its resources.
n.	a solid inorganic substance occurring in nature having a definite chemical composition
103.	The industry in this country is still
adj.	of or relating to an early stage of society with no industry or technological development; simple, naive, or old-fashioned in style
104.	The over climate change continues to be a hot topic in politics.
n.	a formal discussion or argument of opposing viewpoints, often to persuade others to adopt a specific position; a public discussion, often on an issue of current interest, in which participants offer opinions and differing perspectives
105.	advances have disrupted many industries.
adj.	based on scientific and industrial progress
106.	My father's death my life completely.
<i>v</i> .	to change in outward structure or looks;
107.	The unique style of this martial arts many action film producers.
<i>v</i> .	to make somebody fill with the desire, confidence, or enthusiasm, especially to do something creative
108.	She is willing to give up her position in the family to marry him.
adj.	relating to or belonging to the king or queen or a member of their family
109.	The rural were saddened by the destruction of their homes in the natural disaster.
n.	a person who lives in a village or small rural community; a person who is part o a close-knit and traditional community
	WERS: 102. mineral, 103. primitive, 104. debate, 105. Technological, 106. sformed, 107. inspired, 108. royal, 109. villagers

ANSWERS: 110. useless, 111. copper, 112. compete, 113. Emperor, 114. convinced, 115. lateral, 116. retire, 117. engineer

118.	We made a with everyone.
n.	slices of bread browned on both sides that have been put near a high heat; a drink in honor of or to the health of a person or even
119.	The research team seeks more efficient methods to cellulose into its glucose components.
<i>v</i> .	to break down or decompose a compound or substance by a chemical reaction with water, often resulting in the separation of its components
120.	I prefer cookies over store-bought ones.
adj.	made at home rather than in a factory or workshop
121.	The restaurant a ban on smoking.
<i>v</i> .	to change something's direction, order, position, decision, etc., to the opposite one; (adjective) directed or moving toward the rear
122.	They watched the train into the distance.
v.	to cease to exist or be visible
123.	They used a special receiver to police radio channels.
<i>v</i> .	to observe, check, and track the progress or quality of something over a period of time
124.	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
125.	The rumor turned out to be false.
	not clearly expressed or understood
	WERS: 118. toast, 119. hydrolyze, 120. homemade, 121. reversed, 122. opear, 123. monitor, 124. epoch, 125. vague

Vocab-Builder Ref from	"Thomas Thwaites: How	I built a toaster -	<ul><li>from scratch  </li></ul>	TED Talk" (125 words)	
ANSWERS:					
ANSWERS.					