Englist.me

Vocabulary Builder Reference from...

George Zaidan: Why your phone battery gets worse

over time | TED Talk

https://www.ted.com/talks/george_zaidan_why_your_

phone_battery_gets_worse_over_time



All Words

IMPORTANT

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Session 1: Word List

gasoline

 a volatile flammable liquid obtained from petroleum, used mainly as a fuel in car engines, etc.

synonym: gas, petrol, fuel

(1) lead-free **gasoline**, (2) small **gasoline** engine Luxury cars often require high-octane **gasoline** as fuel.

battery

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.

expend

v. to use or spend time, money, energy, etc.

synonym: disburse, spend, pay

(1) **expend** a great deal of energy, (2) **expend** time and resources

Billionaires tend to **expend** private funds on a public undertaking.

recyclability

the degree to which a material or product can be reused or repurposed after it has served its original function, without requiring significant modifications or environmental harm synonym: reusability, sustainability, renewability

(1) **recyclability** rate, (2) low **recyclability** problem The **recyclability** of electronic devices is a significant challenge due to the complexity of their components.

chemical

adj. relating to or connected with chemistry;synonym: chemic, synthetic

(1) toxic **chemicals**, (2) a **chemical** compound

The firm has grown into a large **chemical** manufacturing.

advantage

 a condition or circumstance that puts one in a favorable or superior position; a beneficial feature or asset that someone or something has

synonym: benefit, edge, asset

(1) score an **advantage**, (2) take **advantage** of his weak points

One of the main **advantages** of the new product is its increased efficiency.

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.

electron

- n. a tiny particle with the negative electrical charge synonym: negatron
- flow of electrons,
 beam of electrons
 the outermost electron shell determines the chemical properties of an atom.

typical

adj. having the usual characteristics or traits of a specific group of things

synonym: characteristic, usual, distinctive

(1) **typical** leader, (2) fairly **typical** symptoms This artwork is **typical** of her work.

alkaline

adj. having a pH greater than 7, meaning it is basic rather than acidic; having properties or characteristics similar to an alkali

synonym: basic, caustic, high pH

(1) alkaline water, (2) alkaline food

An **alkaline** environment is necessary for certain types of plants to grow.

zinc

 a metallic element that is found in small amounts in the earth's crust and is used in the manufacture of brass and alloys, and is required to maintain human's health

synonym : Zn

(1) good source of **zinc**, (2) **zinc** deficiency

Zinc supplements are often recommended for people who are deficient in this mineral.

react

v. to take action in response to something

synonym: respond, reply, oppose

(1) **react** at a high temperature, (2) **react** against his way of thinking

How did he **react** to your idea?

hydroxide

 a chemical compound characterized by the presence of one or more hydroxyl groups (-OH), which can either act as a base or be neutralized by an acid to form a salt or water

synonym: base, lye, alkali

- (1) **hydroxide** catalyst, (2) sodium **hydroxide** solution Aluminum **hydroxide** is used in the treatment of stomach ulcers and heartburn.
- an atom or molecule that has a positive or negative electrical charge caused by its losing or gained one or more electrons
- (1) **ion** channel, (2) rechargeable lithium-**ion** battery

 The increased concentrat **ion** of hydrogen ions in an aqueous solution makes it more acidic.

ion

oxide

- a chemical compound that contains at least one oxygen atom and one other element
- (1) silver **oxide**, (2) combined **oxide**

The blood's red coloring comes from iron **oxide**.

negative

adj. having the quality of something bad or harmful; expressing refusal

synonym: minus, adverse, pessimistic

(1) have a **negative** effect, (2) a **negative** number The movie has received almost universally **negative** criticism.

terminal

 a building or place where buses, trains, or airplanes stop and where passengers or goods can be picked up or dropped off; (adjective) of or situated at the ends of a delivery route

synonym: endpoint, final, concluding

terminal disease, (2) a terminal syllable
 terminal at the airport is where passengers catch their

bulb

- a rounded underground storage organ of some plants from which the plant grows; the rounded part of a cylindrical structure; electric lamp consisting of a glass ball
- (1) wet- **bulb** thermometer, (2) a lily **bulb** The light **bulb** has burned out.

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manganese

 a chemical element with the symbol Mn and atomic number 25, commonly used in steel production and other alloys

synonym : Mn

flights.

(1) **manganese** nodules, (2) **manganese** steel **Manganese** dioxide is used as a catalyst in some chemical reactions.

combination

a collection of things that have been combined; an assemblage of separate parts or qualities

synonym: blend, hybrid, compounding

(1) genic combinations, (2) combination number

The **combination** to the safe was a secret.

graphite

 a soft, black, lustrous form of carbon that is conductive and used as a lubricant and in pencils and electrodes in electrical devices

synonym: carbon, black lead, plumbago

(1) graphite pencil, (2) graphite mine

The **graphite** in the brake pads helps to reduce friction during braking.

reaction

 a response that reveals a person's feelings or attitude;
 (in chemistry) a process in which one or more substances are changed into others

synonym: response, reply, answer

(1) chemical reaction, (2) trigger a reaction

There was a chemical **reaction** of the lime with the groundwater.

stream

n. a small, narrow river; a continuous flow of something, such as liquid, gas, people, vehicles, etc.

synonym: flow, current, brook

(1) the **stream** of time, (2) an endless **stream** of cars

Jet **streams** are the common name for air currents that form high in the atmosphere.

theoretical

 adj. relating to the concepts and principles upon which a particular topic is founded, rather than practice and experience

synonym: conceptual, conjectural, ideal

(1) **theoretical** models, (2) **theoretical** physicist Absolute zero is the lowest **theoretical** temperature.

recharge

v. to restore the energy or power of something by supplying it with more energy or power; to refresh or renew oneself by rest or sleep

synonym: renew, refresh, replenish

(1) **recharge** brain and body, (2) **recharge** energy He needed to **recharge** his phone before the meeting.

liquid

 a substance, such as water or oil that flows freely and is neither a solid nor a gas

synonym: fluid

(1) colorless **liquid**, (2) hazardous **liquid**The sponge takes up the **liquid** well.

hydrocarbon

- an organic compound consisting entirely of hydrogen and carbon
- (1) **hydrocarbon** production, (2) **hydrocarbon** molecules in crude oil

Burning **hydrocarbons** releases water vapor and carbon dioxide.

molecule

 a group of two or more atoms held together by attractive forces known as chemical bonds

synonym: particle, element, atom

(1) small **molecules**, (2) **molecule** behavior

The shape of the DNA **molecule** is a double helix.

convert

v. to have a talk with someone; (adjective) reversed in order, relation, or action

synonym: alter, remake, transform

(1) **convert** fat into energy, (2) **convert** base 10 to base 16 I want to **convert** my sadness into strength.

exhaust

n. the system in a vehicle that removes waste gases from the engine; (verb) to make someone completely tired

synonym: emission, fumes, (verb) deplete

(1) **exhaust** pipe, (2) **exhaust** a topic

The factory's **exhaust** fumes polluted the air and affected the

health of the nearby residents.

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.

bunch

 a grouping of several similar things which are growing or fastened together

synonym: group, assemblage, bundle

a bunch of trees,
 a bunch of schoolgirls
 a bunch of schoolgirls
 bad apple spoils the whole bunch.

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.

contaminate

v. to make something impure, unclean, or poisonous by contact or mixture

synonym: defile, pollute, adulterate

(1) **contaminate** with a disease, (2) **contaminate** his ego We strive not to **contaminate** the environment when demolishing petroleum plants.

damage

v. to harm or cause injury to something or someone, often resulting in decreased value or functionality; to impair or negatively affect something, such as a reputation or relationship; (noun) harm or injury that is caused to a person, thing, or entity

synonym: harm, impair, injure

(1) **damage** a relationship, (2) **damage** assessment During the surgery, the doctor had to be extremely cautious

not to damage a blood vessel.

internal

adj. of or relating to the inside of something *synonym*: interior, inner, domestic

(1) internal organs, (2) the internal economy

The prime minister canceled visits to other countries to resolve **internal** disputes.

structure

 the way of construction of something and the arrangement of its parts, or a complex thing constructed of many parts

synonym: construction, architecture, establishment

(1) the **structure** of a machine, (2) **structure** and function of the brain

The organizational **structure** of start-ups is often flat and straightforward.

electrical

adj. relating to electricity

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

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.

lithium

 a soft, silvery-white metal that is highly reactive and used in batteries, alloy production, and medications for bipolar disorder

synonym: lithy, Li, salt

(1) lithium carbonate, (2) lithium mining

Lithium-ion batteries are commonly used in laptops, smartphones, and electric vehicles.

atomic

adj. of or relating to atom (= the smallest component of an element)

synonym: tiny, microscopic, nuclear

(1) atomic nucleus, (2) atomic bomb

Carbon has an **atomic** mass of 12.

dock

n. a structure or platform that extends from the shoreline into a body of water, used for loading and unloading ships or boats; an enclosed area of water used as a basin for shipping or pleasure boats; a place where a ship can be repaired or maintained

synonym: harbor, pier, quay

(1) fishing dock, (2) loading dock

The ship pulled to the **dock**, and we disembarked to start our adventure.

circuit

 n. (in electrical engineering) an electrical device that provides a path for electrical current to flow; a journey or route around a particular place or area

synonym: route, course, rotation

(1) circuit breaker, (2) federal circuit courts

An intelligent battery has a voltage monitoring circuit.

orderly

adj. clean or organized in a neat, careful and logical way synonym: tidy, tidied, neat

orderly and fair market, (2) orderly manner
 The elections were handled in a timely and orderly manner.

opposition

 the act of disagreeing or resisting; the state of strong disagreement

synonym: resistance, hostility, antagonism

(1) **opposition** campaign, (2) meet with **opposition** The **opposition** party strongly disagreed with the government's proposed legislation.

veer

v. to change direction suddenly or sharply; to turn or swerve from one course or direction to another

synonym: swerve, diverge, shift

(1) **veer** toward danger, (2) **veer** to the left

The car **veered** off the road and crashed into a tree.

engage

- v. to attract and keep someone's attention and interest; to participate in or obtain services of something
- synonym: confront, employ, amuse
- (1) **engage** in environmental protection activities,
- (2) engage a new employee

Many multinational companies are **engaged** in the reconstruction of that country.

resistance

- the act of defending oneself from an aggressor or refusing to accept something
- synonym: opposition, antagonism, defiance
- (1) **resistance** movement, (2) **resistance** to insulin

 The bill to increase the consumption tax had passed despite
 much **resistance** from the public.

efficiency

- n. the state or quality of doing something well with no waste of input such as time or money
- synonym: effectiveness, efficacy, productivity
- (1) better fuel efficiency,(2) an energy efficiencyOur company must continue to strive for greater efficiency.

inevitably

- adv. in a manner that cannot be avoided or prevented synonym: unavoidably, necessarily, surely
- (1) **inevitably** decline with age, (2) **inevitably** reach the consumer

Because of his excellent performance, he will **inevitably** be promoted.

recycle

- 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.

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.

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 goldHer resistance melted under his persuasion.

metallic

 adj. relating to or resembling metal; having a shiny, silvery, or reflective quality; characterized by strength, durability, or toughness

synonym: metal

(1) **metallic** taste, (2) **metallic** object

The jewelry shop featured a wide array of **metallic** accessories made of gold, silver, and copper.

impure

adj. mixed with other substances or foreign matter; (of persons or behaviors) immoral or obscene, especially in sexual matters

synonym: contaminated, polluted, unclean

(1) **impure** water, (2) **impure** thoughts

In some religions, pork is deemed **impure**.

initial

adj. of or happening at the beginning; (noun) the first letter of a word, especially a person's name

synonym: basic, primary, beginning

(1) initial velocity, (2) an initial letter

They took the initial step toward reconciliation.

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.

toss

- v. to throw something carelessly with a light motion synonym: throw, sway
- (1) **toss** a coin, (2) **toss** the bottle into a trash can It would be best if you **tossed** out all those old magazines.

complicated

adj. involving a lot of different things or parts in a way that is difficult to understand or analyze

synonym: complex, convoluted, intricate

(1) a **complicated** process, (2) become increasingly **complicated**

He did **complicated** pen-and-ink drawings in just a few days.

absolutely

adv. without restriction or limitation; completely or utterly synonym: completely, utterly, definitely

(1) **absolutely** against, (2) **absolutely** obsessed with the girl

I am **absolutely** opposed to his idea because of morality.

critic

 someone who expresses opinions about the quality of books, music, etc.

synonym: pundit, analyst, attacker

(1) art critic, (2) severe critic

Advocates for legal reform hear less harsh words from their **critics**.

toxic

adj. of or relating to or caused by a poison; poisonous

synonym: poisonous, harmful, contaminated

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

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

leak

v. to allow liquid or gas to get in or out from a hole or crack in a pipe or container

synonym: outflow, divulge, disclose

(1) leak data, (2) leak a classified memo

He **leaked** serious accounting irregularities that only people in the company's executive could know.

environment

n. the natural world such as air, water, and land in which humans, animals, and plants live

synonym: atmosphere, surroundings, climate

environment affairs, (2) chaotic environment
 Every human is responsible for taking care of the Earth's environment.

conserve

v. to protect something, especially the natural environment or culture, from change, damage, or destruction

synonym: preserve, save, maintain

(1) means to **conserve** energy, (2) **conserve** coal resources

Children must be taught to **conserve** our natural environment.

scarce

adj. not abundant or plentiful, and therefore not easy to find or obtain

synonym: rare, limited, sparse

(1) **scarce** resources, (2) capital- **scarce** country

Fresh water is becoming increasingly **scarce** in many parts of the world.

vital

adj. necessary for the success or continued existence of something

synonym: critical, crucial, invigorating

(1) play a vital role, (2) vital for a healthy society

Perseverance and optimism are vital to success.

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.

laptop

- a portable computer that is small enough to be carried around easily and used on your lap
- (1) bring my **laptop**, (2) thin-and-light **laptop**I need to finish this report by tonight, so I'll be working on my **laptop** all day.

manufacture

v. to make goods in large numbers, usually in a factory using machines

synonym: create, fabricate, assemble

(1) **manufacture** an enzyme, (2) **manufacture** a product The majority of synthetic vitamins are **manufactured** from oil.

intricate

adj. having many different parts and small details that all work together

synonym: complicated, convoluted, complex

intricate details, (2) intricate lacework
 The politician managed to deal with that intricate issue.

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.

indestructible

adj. impossible to destroy or damage beyond repairsynonym: unbreakable, sturdy, durable

(1) indestructible warrior, (2) indestructible object

The vault was advertised as **indestructible** but was eventually broken into.

glue

 a sticky substance used for joining things together; a bonding agent made from animal or synthetic materials

synonym: adhesive, paste, gum

(1) glue stick, (2) epoxy glue

The carpenter applied **glue** to the cabinet joints before nailing them together.

regulation

 an official rule made and maintained by a government or some other authority; the act of controlling or directing something according to a rule

synonym: constraint, restriction, rule

(1) a company **regulation**, (2) **regulation** by the government

The **regulation** approved by Congress was perfunctorily implemented.

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.

responsible

adj. answerable or accountable for something within one's power, control, or management

synonym: accountable, answerable, liable

(1) **responsible** action, (2) **responsible** for a customer service

She's a **responsible** pet owner who ensures her dog gets enough exercise and a healthy diet.

boost

v. to improve, raise, or increase something

synonym: raise, advance, promote

(1) **boost** the economy, (2) **boost** flexibility

The new service helped **boost** net income by 10%.

dramatically

adv. in a very impressive mannersynonym: greatly, noticeably, suddenly

(1) he confessed **dramatically**, (2) the cabin pressure fell **dramatically**

Life expectancy has grown dramatically this century.

acid

 sour; water-soluble chemicals with a sour flavor; any of a variety of generally liquid compounds capable of reacting with and occasionally dissolving other materials

synonym: Sour

(1) an **acid** reaction, (2) good source of essential amino **acids**

During pregnancy, the stomach generates less **acid** than usual.

stringent

- adj. strict, severe, or demanding; requiring close attention to rules or regulations; extreme or excessive in some waysynonym: strict, rigorous, demanding
- (1) **stringent** measures, (2) **stringent** requirements

 The school has a **stringent** attendance policy that allows for no more than three absences per semester.

byproduct

- n. a secondary or incidental product produced in the manufacture or synthesis of something elsesynonym: side effect, spinoff, outgrowth
- (1) toxic **byproducts**, (2) **byproduct** of technology

 The **byproduct** of the energy production process is a large amount of carbon dioxide emissions.

addition

 the act or process of adding something to something else; the process of adding numbers

synonym: accumulation, expansion, addendum

(1) chemical addition, (2) addition of vectors

In addition, private corporations provide healthcare services.

industrial

adj. of or relating to or resulting from industrysynonym: manufacturing, mechanical

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

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

individual

- n. a single person or thing, as distinct from a group synonym: person, being, self
- (1) a private **individual**, (2) **individual** freedom

 As an **individual**, he had the right to make his own decisions and live his life as he saw fit.

technological

adj. based on scientific and industrial progress synonym: specialized, technical

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

evolve

v. to develop gradually, or to cause the development of something or someone graduallysynonym: develop, mature, grow

(1) **evolve**, (2) **evolve** over the past decade Eyeless fish **evolved** in dark caves.

proof

 a fact or piece of information that shows something is true or exists

synonym: testimony, evidence, assurance

(1) documentary **proof**, (2) a geometric **proof Proof** is better than argument.

concept

- n. an idea or principle associated with something abstract synonym: idea, notion, vision
- (1) learn new concepts, (2) concept car

One such rapidly growing **concept** is quantum cryptography.

develop

v. to grow or expand; to improve or refine through a process of progress and refinement, often to achieve greater sophistication or complexity; to elaborate or add detail to something that is in the process of being created

synonym: evolve, progress, advance

(1) **develop** a strategy, (2) **develop** a skill

We must **develop** a new system to streamline our workflow and increase efficiency.

ambient

adj. relating to the immediate surroundings of something;
 creating a particular atmosphere or mood, often through sound or lighting

synonym: atmospheric, surrounding, encompassing

(1) ambient temperature, (2) ambient air pollution

The **ambient** lighting in the restaurant created a cozy and romantic atmosphere.

electrify

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.

priority

 something that is more important than other things and should be dealt with first

synonym: importance, precedence, primacy

(1) **priority** call, (2) **priority** seating for elderly Her **priority** is to be a mother.

urine

 a liquid by-product of metabolism in humans and in many other animals that are released from the body when you urinate

synonym: excrement, dung, pee

(1) **urine** composition, (2) blood in the **urine**They collected a **urine** specimen for urinalysis.

Session 2: Spelling

| 1. | absly obsessed with the girl | adv. | without restriction or limitation; completely or utterly |
|----|--|------|--|
| 2. | a neve number | adj. | having the quality of something bad or harmful; expressing refusal |
| 3. | conte with a disease | v. | to make something impure, unclean, or poisonous by contact or mixture |
| 4. | theal models | adj. | relating to the concepts and principles upon which a particular topic is founded, rather than practice and experience |
| 5. | the emon of light | n. | the act of production or sending out gas, heat, light, etc. |
| 6. | hazardous lid | n. | a substance, such as water or oil that flows freely and is neither a solid nor a gas |
| 7. | ene in environmental protection activities | v. | to attract and keep someone's attention and interest; to participate in or obtain services of something |
| 8. | zc deficiency | n. | a metallic element that is found in smal amounts in the earth's crust and is used in the manufacture of brass and alloys, and is required to maintain human's health |
| 9. | ure composition | n. | a liquid by-product of metabolism in humans and in many other animals that are released from the body when you urinate |

ANSWERS: 1. absolutely, 2. negative, 3. contaminate, 4. theoretical, 5. emission, 6. liquid, 7. engage, 8. zinc, 9. urine

| 10. | genic comons | n. | a collection of things that have been combined; an assemblage of separate parts or qualities |
|-----|------------------------------|------------|--|
| 11. | elfy a manufacturing process | <i>v</i> . | to make a machine or system work by using electricity; to make someone extremely enthusiastic about or interested in something |
| 12. | oppon campaign | n. | the act of disagreeing or resisting; the state of strong disagreement |
| 13. | envnt affairs | n. | the natural world such as air, water, and land in which humans, animals, and plants live |
| 14. | blood in the ure | n. | a liquid by-product of metabolism in humans and in many other animals that are released from the body when you urinate |
| 15. | lead-free gane | n. | a volatile flammable liquid obtained from petroleum, used mainly as a fuel in car engines, etc. |
| 16. | exd time and resources | ν. | to use or spend time, money, energy, etc. |
| 17. | regon by the government | n. | an official rule made and maintained by a government or some other authority; the act of controlling or directing something according to a rule |
| 18. | rege energy | <i>v</i> . | to restore the energy or power of something by supplying it with more energy or power; to refresh or renew oneself by rest or sleep |
| | | | |

ANSWERS: 10. combination, 11. electrify, 12. opposition, 13. environment, 14. urine, 15. gasoline, 16. expend, 17. regulation, 18. recharge

| 19. | mase steel | n. | a chemical element with the symbol Mn and atomic number 25, commonly used in steel production and other alloys |
|-----|----------------------------------|------|---|
| 20. | g_e stick | n. | a sticky substance used for joining things together; a bonding agent made from animal or synthetic materials |
| 21. | absly against | adv. | without restriction or limitation; completely or utterly |
| 22. | rechargeable lithium-i_n battery | n. | an atom or molecule that has a positive or negative electrical charge caused by its losing or gained one or more electrons |
| 23. | conte his ego | v. | to make something impure, unclean, or poisonous by contact or mixture |
| 24. | ext a topic | n. | the system in a vehicle that removes waste gases from the engine; (verb) to make someone completely tired |
| 25. | colorless lid | n. | a substance, such as water or oil that flows freely and is neither a solid nor a gas |
| 26. | a chal compound | adj. | relating to or connected with chemistry; |
| 27. | inI velocity | adj. | of or happening at the beginning; (noun) the first letter of a word, especially a person's name |
| 28. | fairly tyI symptoms | adj. | having the usual characteristics or traits of a specific group of things |
| 29. | ree the order | v. | to change something's direction, order, position, decision, etc., to the opposite one; (adjective) directed or moving toward the rear |

ANSWERS: 19. manganese, 20. glue, 21. absolutely, 22. ion, 23. contaminate, 24. exhaust, 25. liquid, 26. chemical, 27. initial, 28. typical, 29. reverse

ANSWERS: 30. individual, 31. responsible, 32. conserve, 33. process, 34. dramatically, 35. graphite, 36. responsible, 37. recharge, 38. vital

38. play a vi I role

adj. necessary for the success or continued

existence of something

39. us s information adj. not serving any useful purpose; having no practical result 40. en er shortage a person whose job is designing, n. building, or maintaining something such as machines, structures, or software adj. of or relating to or caused by a poison; 41. to c molecule poisonous a structure or platform that extends from 42. fishing d k the shoreline into a body of water, used for loading and unloading ships or boats: an enclosed area of water used as a basin for shipping or pleasure boats; a place where a ship can be repaired or maintained 43. ex___t pipe the system in a vehicle that removes n. waste gases from the engine; (verb) to make someone completely tired 44. a bu h of schoolgirls a grouping of several similar things n. which are growing or fastened together to make goods in large numbers, 45. man____re an enzyme ν. usually in a factory using machines 46. co t fat into energy to have a talk with someone; (adjective) ν. reversed in order, relation, or action 47. global em____ons of greenhouse the act of production or sending out n. gas, heat, light, etc. gases 48. thin-and-light la p a portable computer that is small n. enough to be carried around easily and used on your lap 49. I k a classified memo to allow liquid or gas to get in or out ν. from a hole or crack in a pipe or

ANSWERS: 39. useless, 40. engineer, 41. toxic, 42. dock, 43. exhaust, 44. bunch, 45. manufacture, 46. convert, 47. emission, 48. laptop, 49. leak

container

| 50. | indble warrior | adj. | impossible to destroy or damage beyond repair |
|-----|------------------------------|------------|---|
| 51. | sce resources | adj. | not abundant or plentiful, and therefore not easy to find or obtain |
| 52. | uss in the kitchen | adj. | not serving any useful purpose; having no practical result |
| 53. | chemical reon | n. | a response that reveals a person's feelings or attitude; (in chemistry) a process in which one or more substances are changed into others |
| 54. | inely reach the consumer | adv. | in a manner that cannot be avoided or prevented |
| 55. | cot car | n. | an idea or principle associated with something abstract |
| 56. | exd a great deal of energy | <i>v</i> . | to use or spend time, money, energy, etc. |
| 57. | comon number | n. | a collection of things that have been combined; an assemblage of separate parts or qualities |
| 58. | take adge of his weak points | n. | a condition or circumstance that puts one in a favorable or superior position; a beneficial feature or asset that someone or something has |
| 59. | degree in eleal engineering | adj. | relating to electricity |
| 60. | an energy effcy | n. | the state or quality of doing something well with no waste of input such as time or money |
| 61. | better fuel effcy | n. | the state or quality of doing something well with no waste of input such as time or money |
| | | | |

ANSWERS: 50. indestructible, 51. scarce, 52. useless, 53. reaction, 54. inevitably, 55. concept, 56. expend, 57. combination, 58. advantage, 59. electrical, 60. efficiency, 61. efficiency

70. li____m mining

immoral or obscene, especially in sexual matters

a soft, silvery-white metal that is highly reactive and used in batteries, alloy production, and medications for bipolar disorder

ANSWERS: 62. molecule, 63. recycle, 64. dock, 65. toss, 66. scarce, 67. alkaline, 68. melt, 69. impure, 70. lithium

| 71. elfy the audience | v. | to make a machine or system work by using electricity; to make someone extremely enthusiastic about or interested in something |
|------------------------------------|----|--|
| 72. eve over the past decade | v. | to develop gradually, or to cause the development of something or someone gradually |
| 73. bay charging | n. | a device that is placed inside a car, gadget, equipment, etc. and that provides electrical power to them |
| 74. a geometric prf | n. | a fact or piece of information that shows something is true or exists |
| 75. combined oxe | n. | a chemical compound that contains at least one oxygen atom and one other element |
| 76. stre and function of the brain | n. | the way of construction of something and the arrangement of its parts, or a complex thing constructed of many parts |
| 77. sodium hyde solution | n. | a chemical compound characterized by the presence of one or more hydroxyl groups (-OH), which can either act as a base or be neutralized by an acid to form a salt or water |
| 78. mase nodules | n. | a chemical element with the symbol Mn and atomic number 25, commonly used in steel production and other alloys |
| 79. dep a strategy | v. | to grow or expand; to improve or refine through a process of progress and refinement, often to achieve greater sophistication or complexity; to elaborate or add detail to something |

ANSWERS: 71. electrify, 72. evolve, 73. battery, 74. proof, 75. oxide, 76. structure, 77. hydroxide, 78. manganese, 79. develop

that is in the process of being created

| 80. | bot the economy | <i>v</i> . | to improve, raise, or increase something |
|-----|-----------------------------------|------------|--|
| 81. | learn new cots | n. | an idea or principle associated with something abstract |
| 82. | a comed process | adj. | involving a lot of different things or parts in a way that is difficult to understand or analyze |
| 83. | teal disease | n. | a building or place where buses, trains, or airplanes stop and where passengers or goods can be picked up or dropped off; (adjective) of or situated at the ends of a delivery route |
| 84. | manre a product | <i>v</i> . | to make goods in large numbers, usually in a factory using machines |
| 85. | ree the trend | v. | to change something's direction, order, position, decision, etc., to the opposite one; (adjective) directed or moving toward the rear |
| 86. | ree milk packaging into new paper | ν. | to sort and collect things to process them and produce valuable materials that can be used again |
| 87. | an ad reaction | n. | sour; water-soluble chemicals with a sour flavor; any of a variety of generally liquid compounds capable of reacting with and occasionally dissolving other materials |
| 88. | ts a coin | <i>v</i> . | to throw something carelessly with a light motion |
| 89. | a teal syllable | n. | a building or place where buses, trains, or airplanes stop and where passengers or goods can be picked up or dropped off; (adjective) of or situated at the ends of a delivery route |

ANSWERS: 80. boost, 81. concept, 82. complicated, 83. terminal, 84. manufacture, 85. reverse, 86. recycle, 87. acid, 88. toss, 89. terminal

- something
- to take action in response to something ν.
- a response that reveals a person's n. feelings or attitude; (in chemistry) a process in which one or more substances are changed into others

ANSWERS: 90. process, 91. react, 92. byproduct, 93. battery, 94. hydroxide, 95. dramatically, 96. resistance, 97. react, 98. reaction

97. re_t against his way of thinking

98. trigger a re on

| 99. inte details | adj. | having many different parts and small details that all work together |
|--------------------------------|------------|---|
| 100. toxic bycts | n. | a secondary or incidental product produced in the manufacture or synthesis of something else |
| 101. ime water | adj. | mixed with other substances or foreign matter; (of persons or behaviors) immoral or obscene, especially in sexual matters |
| 102. dee a word | <i>v</i> . | to state or explain precisely the nature, scope, or meaning of something |
| 103. key cont | n. | one of several parts that combines with others to form something bigger |
| 104. viI for a healthy society | adj. | necessary for the success or continued existence of something |
| 105. prty call | n. | something that is more important than other things and should be dealt with first |
| 106. epoxy ge | n. | a sticky substance used for joining things together; a bonding agent made from animal or synthetic materials |
| 107. score an adge | n. | a condition or circumstance that puts one in a favorable or superior position; a beneficial feature or asset that someone or something has |
| 108. ene a new employee | <i>v</i> . | to attract and keep someone's attention and interest; to participate in or obtain services of something |
| 109. flow of elons | n. | a tiny particle with the negative electrical charge |

ANSWERS: 99. intricate, 100. byproduct, 101. impure, 102. define, 103. component, 104. vital, 105. priority, 106. glue, 107. advantage, 108. engage, 109. electron

| 110. amt air pollution | adj. | relating to the immediate surroundings of something; creating a particular atmosphere or mood, often through sound or lighting |
|-----------------------------|------|--|
| 111. meet with oppon | n. | the act of disagreeing or resisting; the state of strong disagreement |
| 112. small moles | n. | a group of two or more atoms held together by attractive forces known as chemical bonds |
| 113. an eleal storm | adj. | relating to electricity |
| 114. ree a prisoner | v. | to set free or allow to escape from confinement |
| 115. vr to the left | v. | to change direction suddenly or sharply; to turn or swerve from one course or direction to another |
| 116. inte lacework | adj. | having many different parts and small details that all work together |
| 117. inely decline with age | adv. | in a manner that cannot be avoided or prevented |
| 118. meic object | adj. | relating to or resembling metal; having a shiny, silvery, or reflective quality; characterized by strength, durability, or toughness |
| 119. stnt measures | adj. | strict, severe, or demanding; requiring close attention to rules or regulations; extreme or excessive in some way |
| 120. bot flexibility | v. | to improve, raise, or increase something |
| 121. a buh of trees | n. | a grouping of several similar things which are growing or fastened together |

ANSWERS: 110. ambient, 111. opposition, 112. molecule, 113. electrical, 114. release, 115. veer, 116. intricate, 117. inevitably, 118. metallic, 119. stringent, 120. boost, 121. bunch

| 122. mt the ice | v. | to turn from something solid into something soft or liquid as a result of heating |
|--------------------------------|------------|---|
| 123. resce movement | n. | the act of defending oneself from an aggressor or refusing to accept something |
| 124. cot base 10 to base 16 | <i>v</i> . | to have a talk with someone; (adjective) reversed in order, relation, or action |
| 125. meic taste | adj. | relating to or resembling metal; having a shiny, silvery, or reflective quality; characterized by strength, durability, or toughness |
| 126. chaotic envnt | n. | the natural world such as air, water, and land in which humans, animals, and plants live |
| 127. theal physicist | adj. | relating to the concepts and principles upon which a particular topic is founded, rather than practice and experience |
| 128. inal organs | adj. | of or relating to the inside of something |
| 129. bring my lap | n. | a portable computer that is small enough to be carried around easily and used on your lap |
| 130. cove coal resources | v. | to protect something, especially the natural environment or culture, from change, damage, or destruction |
| 131. become increasingly comed | adj. | involving a lot of different things or parts in a way that is difficult to understand or analyze |
| | | |

ANSWERS: 122. melt, 123. resistance, 124. convert, 125. metallic, 126. environment, 127. theoretical, 128. internal, 129. laptop, 130. conserve, 131. complicated

| 132. cit breaker | n. | (in electrical engineering) an electrical device that provides a path for electrical current to flow; a journey or route around a particular place or area |
|-----------------------------------|------|--|
| 133. low recity problem | n. | the degree to which a material or product can be reused or repurposed after it has served its original function, without requiring significant modifications or environmental harm |
| 134. dep a skill | ν. | to grow or expand; to improve or refine through a process of progress and refinement, often to achieve greater sophistication or complexity; to elaborate or add detail to something that is in the process of being created |
| 135. hydon molecules in crude oil | n. | an organic compound consisting entirely of hydrogen and carbon |
| 136. dae assessment | ν. | to harm or cause injury to something or someone, often resulting in decreased value or functionality; to impair or negatively affect something, such as a reputation or relationship; (noun) harm or injury that is caused to a person, thing, or entity |
| 137. ory and fair market | adj. | clean or organized in a neat, careful and logical way |
| 138. the inal economy | adj. | of or relating to the inside of something |
| 139. vr toward danger | ν. | to change direction suddenly or sharply; to turn or swerve from one course or direction to another |

ANSWERS: 132. circuit, 133. recyclability, 134. develop, 135. hydrocarbon, 136. damage, 137. orderly, 138. internal, 139. veer

| 140. spare conts for cars | n. | one of several parts that combines with others to form something bigger |
|---|------------|--|
| 141. severe crc | n. | someone who expresses opinions about the quality of books, music, etc. |
| 142. adon of vectors | n. | the act or process of adding something to something else; the process of adding numbers |
| 143. amt temperature | adj. | relating to the immediate surroundings of something; creating a particular atmosphere or mood, often through sound or lighting |
| 144. indal alcohol | adj. | of or relating to or resulting from industry |
| 145. ree CO2 into the air | <i>v</i> . | to set free or allow to escape from confinement |
| 146. beginning of the indal revolution | adj. | of or relating to or resulting from industry |
| 147. recity rate | n. | the degree to which a material or product can be reused or repurposed after it has served its original function, without requiring significant modifications or environmental harm |
| 148. a private indal | n. | a single person or thing, as distinct from a group |
| 149. a company regon | n. | an official rule made and maintained by a government or some other authority; the act of controlling or directing something according to a rule |
| 150. good source of essential amino ads | n. | sour; water-soluble chemicals with a sour flavor; any of a variety of generally liquid compounds capable of reacting with and occasionally dissolving other materials |

ANSWERS: 140. component, 141. critic, 142. addition, 143. ambient, 144. industrial, 145. release, 146. industrial, 147. recyclability, 148. individual, 149. regulation, 150. acid

| 151. atc bomb | adj. | of or relating to atom (= the smallest component of an element) |
|-------------------------------|------|---|
| 152. good source of zc | n. | a metallic element that is found in small amounts in the earth's crust and is used in the manufacture of brass and alloys, and is required to maintain human's health |
| 153. have a neve effect | adj. | having the quality of something bad or harmful; expressing refusal |
| 154. indble object | adj. | impossible to destroy or damage beyond repair |
| 155. teccal policy | adj. | based on scientific and industrial progress |
| 156. alne food | adj. | having a pH greater than 7, meaning it is basic rather than acidic; having properties or characteristics similar to an alkali |
| 157. hydon production | n. | an organic compound consisting entirely of hydrogen and carbon |
| 158. prty seating for elderly | n. | something that is more important than other things and should be dealt with first |
| 159. federal cit courts | n. | (in electrical engineering) an electrical device that provides a path for electrical current to flow; a journey or route around a particular place or area |
| 160. chemical adon | n. | the act or process of adding something to something else; the process of adding numbers |

ANSWERS: 151. atomic, 152. zinc, 153. negative, 154. indestructible, 155. technological, 156. alkaline, 157. hydrocarbon, 158. priority, 159. circuit, 160. addition

| n. | a soft, black, lustrous form of carbon |
|------------|---|
| | that is conductive and used as a lubricant and in pencils and electrodes in electrical devices |
| adj. | of or happening at the beginning; (noun) the first letter of a word, especially a person's name |
| n. | a person whose job is designing, building, or maintaining something such as machines, structures, or software |
| <i>v</i> . | to state or explain precisely the nature, scope, or meaning of something |
| adj. | relating to or connected with chemistry; |
| adj. | of or relating to or caused by a poison; poisonous |
| adv. | by bad luck; unluckily |
| n. | a soft, silvery-white metal that is highly reactive and used in batteries, alloy production, and medications for bipolar disorder |
| <i>v</i> . | to develop gradually, or to cause the development of something or someone gradually |
| adj. | of or relating to atom (= the smallest component of an element) |
| | n. adj. adv. n. |

ANSWERS: 161. stream, 162. graphite, 163. initial, 164. engineer, 165. define, 166. chemical, 167. toxic, 168. unfortunately, 169. lithium, 170. evolve, 171. atomic

| 172. art crc | n. | someone who expresses opinions about the quality of books, music, etc. |
|----------------------------|------|--|
| 173. the stre of a machine | n. | the way of construction of something and the arrangement of its parts, or a complex thing constructed of many parts |
| 174. the stm of time | n. | a small, narrow river; a continuous flow of something, such as liquid, gas, people, vehicles, etc. |
| 175. a lily bb | n. | a rounded underground storage organ of some plants from which the plant grows; the rounded part of a cylindrical structure; electric lamp consisting of a glass ball |
| 176. beam of elons | n. | a tiny particle with the negative electrical charge |
| 177. teccal advancement | adj. | based on scientific and industrial progress |
| 178. documentary prf | n. | a fact or piece of information that shows something is true or exists |
| 179. ory manner | adj. | clean or organized in a neat, careful and logical way |
| 180. lk data | v. | to allow liquid or gas to get in or out from a hole or crack in a pipe or container |
| 181. even more unfely | adv. | by bad luck; unluckily |
| 182. i_n channel | n. | an atom or molecule that has a positive or negative electrical charge caused by its losing or gained one or more electrons |

ANSWERS: 172. critic, 173. structure, 174. stream, 175. bulb, 176. electron, 177. technological, 178. proof, 179. orderly, 180. leak, 181. unfortunately, 182. ion

- 183. st____nt requirements
- 184. silver ox__e
- 185. ty____I leader
- 186. da e a relationship

- 187. small ga ne engine
- 188. wet-b b thermometer

- adj. strict, severe, or demanding; requiring close attention to rules or regulations; extreme or excessive in some way
- a chemical compound that contains at least one oxygen atom and one other element
- adj. having the usual characteristics or traits of a specific group of things
- v. to harm or cause injury to something or someone, often resulting in decreased value or functionality; to impair or negatively affect something, such as a reputation or relationship; (noun) harm or injury that is caused to a person, thing, or entity
- a volatile flammable liquid obtained from petroleum, used mainly as a fuel in car engines, etc.
- a rounded underground storage organ of some plants from which the plant grows; the rounded part of a cylindrical structure; electric lamp consisting of a glass ball

ANSWERS: 183. stringent, 184. oxide, 185. typical, 186. damage, 187. gasoline, 188. bulb

Session 3: Fill in the Blanks

| 1. | The | in the brake pads helps to reduce friction during braking. |
|-----|-----------------|---|
| n. | | lustrous form of carbon that is conductive and used as a lubricant ls and electrodes in electrical devices |
| 2. | There are five | distinct at five unique wavelengths. |
| n. | the act of pro | oduction or sending out gas, heat, light, etc. |
| 3. | The | will repair my telephone tomorrow morning. |
| n. | | ose job is designing, building, or maintaining something such as tructures, or software |
| 4. | The | at the airport is where passengers catch their flights. |
| n. | passengers | place where buses, trains, or airplanes stop and where or goods can be picked up or dropped off; (adjective) of or situated of a delivery route |
| 5. | The light | has burned out. |
| n. | | nderground storage organ of some plants from which the plant bunded part of a cylindrical structure; electric lamp consisting of a |
| 6. | Thelegislation. | party strongly disagreed with the government's proposed |
| n. | the act of dis | sagreeing or resisting; the state of strong disagreement |
| 7. | The movie ha | s received almost universally criticism. |
| adj | i. having the q | uality of something bad or harmful; expressing refusal |
| | SWERS: 1. gra | aphite, 2. emissions, 3. engineer, 4. terminal, 5. bulb, 6. opposition |

ANSWERS: 39. circuit, 40. tossed, 41. dock, 42. orderly, 43. release, 44. battery, 45. reaction, 46. hydroxide

94. One such rapidly growing _____ is quantum cryptography.

n. an idea or principle associated with something abstract

ANSWERS: 94. concept