# **Englist.me**

# Vocabulary Builder Reference from...

Lisa Dyson: A forgotten Space Age technology could change how we grow food | TED Talk https://www.ted.com/talks/lisa\_dyson\_a\_forgotten\_sp ace\_age\_technology\_could\_change\_how\_we\_grow\_f ood



# **All Words**

#### **IMPORTANT**

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# **Session 1: Word List**

crew

 a group of people who work together, especially on a ship or airplane

synonym: team, group, squad

(1) the film **crew**, (2) the **crew** of a fishing boat The ship's **crew** worked hard to repair the damaged sails before the next storm hit.

astronaut

 a person trained by a space agency to travel outside the Earth's atmosphere

synonym: spaceman, cosmonaut

(1) **astronaut** mission, (2) **astronaut** in training

The shuttle **astronaut** trained for months before embarking on the space mission.

mar

 to damage or spoil the appearance or surface of something

synonym: damage, deface, disfigure

(1) **mar** a proper relationship, (2) **mar** the reputation The scratches on the car **marred** its otherwise perfect appearance.

distant

adj. far away in space, time, or where you are; far apart in relevance, relationship, or kinship

synonym: far, isolated, remote

(1) a distant memory, (2) distant ancestors

The sun set over the crest of distant hills.

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.

minimal

adj. tiny in amount; the least possible synonym: tiniest, essential, minimum

(1) minimal effort, (2) minimal amount

The process was carried out at **minimal** cost.

packet

 a small container or envelope that holds one or more items typically used for storing or transporting items like food, medicine, or marketing materials

synonym: package, parcel, bundle

(1) packet delivery, (2) packet data network

I need to buy a **packet** of biscuits from the store.

crop

a plant that is cultivated in large amounts, particularly for food

synonym: output, produce, product

(1) **crop** field, (2) **crop** herbicide

Sow early for an early **crop**.

duration

n. the length of time something lasts or continues

synonym: period, span, course

(1) the **duration** of insurance, (2) short **duration** 

The military incarcerated him for the **duration** of the war.

#### involve

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

synonym: implicate, include, engage

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

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

## microorganism

 a very small living thing that may exist in its single-celled form or as a colony of cells and is too small to be seen without a microscope

synonym: germ, microbe, bacterium

(1) pathogenic **microorganism**, (2) **microorganisms** in his gut

This **microorganism** is a producer of respiratory disease.

# hydrogen

- the chemical element that is the lightest gas is colorless, odorless, tasteless, and combines with oxygen to form water
- hydrogen gas, (2) heavy hydrogen
   The hydrogen and the oxygen react and then form water.

#### microbe

 a tiny living thing that can only be seen with a microscope and that may cause disease

synonym: germ, microorganism, bacterium

(1) pathogenic **microbe**, (2) **microbes** sterilizer **Microbes** thrive on the surface of the human skin.

#### virtue

- n. high moral standards in behavior or attitudessynonym: integrity, probity, goodness
- (1) **virtue** of frugality, (2) acquire a **virtue**She had many good **virtues** and few faults.

#### carbon

- a chemical element that can be found in pure form as diamond or graphite, and it is also an essential part of coal and oil and is found in all plants and animals
- (1) carbon dioxide, (2) carbon emission

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

#### sustain

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

synonym: maintain, nurture, support

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

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

#### onboard

v. to become or make part of a team, group, or system; to install, activate, or begin using a piece of equipment or software; (adjective) included or integrated into a particular system, machine, or device

synonym: embark, aboard, on-load

(1) **onboard** the new employees, (2) **onboard** computer The passengers were instructed to **onboard** the aircraft as quickly as possible so that the flight could depart on time.

# spacecraft

- n. a vehicle designed to travel through space, typically carrying astronauts or scientific instrumentssynonym: spaceship, satellite, probe
- (1) spacecraft launch, (2) alien spacecraft

The human-crewed **spacecraft** successfully landed on the moon, fulfilling its mission.

#### oxide

- a chemical compound that contains at least one oxygen atom and one other element
- (1) silver oxide, (2) combined oxideThe blood's red coloring comes from iron oxide.

capture

v. to catch a person or an animal and confine them in an area which they cannot escape

synonym: catch, arrest, imprison

(1) **capture** a glimpse, (2) **capture** customers' hearts I was able to **capture** the moment on film.

#### 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.

#### exhale

loop

v. to breathe out air or vapor from the lungs or mouth; to release or emit something slowly or gently

synonym: breathe out, expel, emit

- (1) **exhale** a big sigh, (2) **exhale** cigarette smoke He took a deep breath and slowly began to **exhale**.
- a shape like a curve or a circle made by something long and thin, such as a piece of string, that bends round and crosses itself

synonym: circle, curl, spiral

(1) exit from a **loop**, (2) positive feedback **loop** Many people in this city use the **loop** railway for transportation.

### survive

- v. to live or exist despite a dangerous event or periodsynonym: endure, persist, stay
- (1) **survive** a blizzard, (2) **survive** a plane crash These birds can only **survive** in temperate climates.

# 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.

## colleague

 one of a group of a coworker, especially in a profession or a business

synonym: coworker, associate, fellow

(1) collaborate with colleagues, (2) former colleague

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I decided to seek counseling on the advice of my colleague.

reed

n. a tall, slender-leaved plant that grows in water; a thin strip of wood or metal that vibrates to produce sound in certain musical instruments such as oboe, clarinet, and saxophone

synonym: cane, grass

(1) **reed** instrument, (2) a young bud of **reed** 

The **reed** in the wind instrument needs to be replaced.

climate

n. the weather in a particular location averaged over some long period

*synonym*: atmosphere, weather, environment

(1) a cold **climate**, (2) effects of **climate** change **Climate** and weather have an impact on every part of our lifestyles.

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 century

Her research team made an important discovery.

spaceship

 n. (especially in science fiction) a spacecraft designed to carry a crew into interstellar space

*synonym*: starship, rocket, spacecraft

(1) a **spaceship** to survey the moon, (2) alien **spaceship** They launched a crewless **spaceship** into space.

cultivate

- v. to prepare and foster land for growing crops or plants synonym: boost, foster, nurture
- (1) **cultivate** a field, (2) **cultivate** relationships University is a great place to **cultivate** our minds and expertise.

### supercharge

- v. to increase the power or energy of something synonym: boost, enhance, power up
- (1) **supercharge** economic growth, (2) **supercharge** the battery

They **supercharged** the engine to get more power.

### largely

adv. virtually entirely; to a large degree synonym: mainly, chiefly, broadly

(1) **largely** accepted, (2) **largely** mitigate the issue Nevada is **largely** a desert state.

### overlook

v. to fail to notice something; to watch over someone; to provide a view from above

synonym: disregard, look down, supervise

(1) overlook a street, (2) overlook that factWe cannot overlook an opportunity for great success.

cult

 a small religious group, especially one that is not part of a larger religion and that is regarded as outside the norm; followers of an exclusive system of beliefs and practices

synonym: sect, faith, religion

(1) cult members, (2) cult's practices

The **cult** leader promised his followers that they would achieve enlightenment if they followed his teachings.

lab

 a workplace for the conduct of scientific research; a laboratory

synonym: workshop, laboratory, research chamber

(1) **lab** instrument, (2) medical **lab** 

The Prime Minister will pay a courtesy visit to the Nobel laureate's **lab**.

#### essential

adj. indispensable; fundamental synonym: critical, crucial, basic

(1) essential amino acid, (2) essential commodities of life

Trial and error is an **essential** part of education.

#### amino

- n. compounds and functional groups that contain a basic nitrogen atom with a lone pair (NH2) that combine to make protein
- (1) amino compound, (2) amino acid

This company was granted a patent for its **amino** resin manufacturing process.

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.

# protein

- a molecule made up of a long chain of amino acids, which is essential for the structure and function of the body's tissues
- (1) stress **protein**, (2) **protein** synthesis

The body needs a certain amount of **protein** to build and repair tissues.

### 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.
- n. a group of fruits that belong to the citrus family, including

oranges, lemons, limes, and grapefruits; the trees that bear these fruits

synonym: orange, lemon, lime

(1) citrus trees, (2) citrus scent

Citrus fruits like oranges and lemons are high in vitamin C.

citrus

### flavoring

 a substance or combination of substances used to add taste or aroma to food or drink; a controlled substance used to mask the taste or odor of another substance

synonym: spice, seasoning, essence

(1) beverage **flavoring**, (2) natural **flavoring** 

The recipe calls for adding a dash of vanilla **flavoring** to the batter.

# fragrance

 a pleasant or sweet smell, especially one that is natural to a particular substance

synonym: aroma, scent, perfume

(1) fragrance oil, (2) lavender fragrance

The **fragrance** of the roses filled the air and brought a smile to my face.

# biodegrade

- v. to decay naturally by microorganisms, such as bacteria and fungi
- (1) **biodegrade** by the microorganism, (2) bioplastic designed to **biodegrade**

The company's plastic products are easily **biodegraded** thanks to a unique manufacturing process.

jet

 a type of aircraft that is powered by one or more jet engines and can fly at high speeds, typically over long distances

synonym: plane, aircraft, flier

(1) private jet, (2) commercial jet

The **jet** flew over the ocean at high speed, reaching its destination in hours.

fuel

a substance that is typically burned to generate heat or energy

synonym: energy, power, gas

(1) biomass fuel, (2) smokeless fuel

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

### palm

n. the inner surface of the hand from the wrist to the base of the fingers; any plant of the family Palmae having an unbranched trunk crowned by large pinnate or palmate leaves

synonym: hand, fist

(1) the **palm** side of the forearm, (2) coconut **palm** trees This high-performance camera is compact enough to fit in the **palm** of your hand.

#### consume

v. to spend something, especially fuel, energy, or time, in a large amount

synonym: absorb, ingest, use up

(1) **consume** a large of alcohol, (2) **consume** electricity A smaller car will **consume** less fuel.

### 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.

### profitable

adj. making or likely to make material gain or profit synonym: advantageous, beneficial, thriving

(1) a profitable job, (2) profitable trade

The Prohibition amendment made bootlegging profitable.

#### beneficial

adj. helpful, useful, or sound; promoting or enhancing well-being

synonym: useful, advantageous, fruitful

(1) a **beneficial** result, (2) **beneficial** to all countries Laughing is **beneficial** to our health.

# agriculture

 the practice or science of cultivating the land or raising stock

synonym: farming, husbandry, agribusiness

(1) organic agriculture, (2) intensive agriculture

# **Agriculture** is the foundation of our economy.

### sustainable

adj. able to continue or be continued for a long time synonym: continuable, endurable, tolerable

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

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

#### estimate

v. to guess or calculate the cost, size, value, etc. of something

synonym: calculate, gauge, evaluate

(1) **estimate** a fair value, (2) **estimate** this chicken to weigh three pounds

We **estimated** the season's total trade deficit at \$50 billion.

#### 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.

### modern

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

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

emit

v. to give off or send out something such as light, heat, sound, gas, etc.

synonym: give off, radiate, expel

(1) **emit** a gamma ray, (2) **emit** air pollution During the unloading, the container box **emits** a clicking sound.

### greenhouse

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

### conservatory

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

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

#### combine

- v. to join or merge to form a single thing or group synonym: coalesce, cohere, blend
- (1) **combine** chemically with another substance,
- (2) **combine** augmented reality

Hydrogen and oxygen **combine** to form water.

#### livestock

farm animals and birds such as cows, sheep, and chickens

synonym: cattle, oxen, herd

(1) **livestock** agriculture, (2) **livestock** industry **Livestock** feed is made from fodder crops.

# roughly

adv. approximately but not precisely; with a violent manner synonym: approximately, more or less, around

(1) **roughly** explain my idea, (2) **roughly** speaking Five miles is **roughly** similar to eight kilometers.

# specific

- adj. clearly defined or particular to a certain thing or situation; distinct, explicit, and precisesynonym: particular, definite, distinct
- (1) **specific** instructions, (2) industry- **specific** regulations The scientist conducted a study that provided **specific** details about the species' behavior.

### virgin

 a person who has never had sex; (adjective) being used or worked for the first time

synonym: virtuous, vestal, beginner

virgin material, (2) enter virgin territory
 Within a few years, no virgin forests will remain.

#### rainforest

- a forest rich in biodiversity that is generally found in tropical settings with heavy annual rainfall
- (1) **rainforest** destruction, (2) tropical **rainforest**The destruction of the **rainforest** is a ticking time bomb for the Earth.

# approximately

adv. close to a specific number or time but not exactly that number or time

synonym: about, around, roughly

(1) **approximately** 3 feet long, (2) **approximately** same This trail takes **approximately** 2.5 hours.

# diversity

 the quality or fact of many different types of things or people being included in something; a range of different things or people

synonym: variety, multiplicity, variousness

(1) the **diversity** policy of the university, (2) lingual **diversity** He was impressed by the range and **diversity** of the collection.

# 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.

insect

- any small creature that has six legs and a body divided into three sections
- (1) insect antenna, (2) insect biology

These **insects** are more prevalent above a certain latitude.

#### sink

v. to submerge or go down below the surface of a liquid or substance; to decline or deteriorate; to cause something

to go down into a liquid substance or sink into something else

synonym: descend, drop, plummet

(1) **sink** a lot of capital, (2) **sink** a buzzer-beater

The abandoned ship slowly began to **sink** into the murky waters of the harbor.

# primarily

adv. mainly

synonym: largely, mainly, mostly

(1) intended **primarily** for young people, (2) **primarily** affect adults

All peaceful cooperation is based **primarily** on mutual trust.

#### mention

- v. to speak or write about something or someone briefly synonym: reference, allude, cite
- (1) **mention** name, (2) **mention** in a report I **mentioned** to him that I had seen his sister at the grocery store earlier that day.

# detergent

 a substance used for washing or cleaning, especially one that can remove dirt or stains effectively

synonym: soap, cleanser, disinfectant

(1) **detergent** solution, (2) laundry **detergent**I use environmentally friendly **detergent** when I wash my clothes and dishes.

#### numerous

- adj. amounting to a large indefinite number synonym: many, considerable, countless
- (1) **numerous** countries, (2) as **numerous** as the sand These descriptions are based on a number of **numerous** assumptions.

# beneficiary

- n. a person who receives benefits or advantage from something, especially a financial trust or a willsynonym: recipient, heir, inheritor
- (1) the **beneficiary** of a trust, (2) primary **beneficiary**

She was the sole **beneficiary** of her grandfather's estate.

## specifically

adv. only associated with or meant for one thingsynonym: especially, particularly, notably

(1) designed **specifically** for men, (2) for **specifically** American customers

This ad campaign is aimed **specifically** at young women.

### ecosystem

- all the plants and living creatures in an area and the way they affect each other and the environment
- (1) marine **ecosystem**, (2) change the **ecosystem**Human conservation efforts often fail unexpectedly because they disturb the balance of the **ecosystem**.

#### thrive

- v. to grow vigorously; to make steady progresssynonym: bloom, flourish, prosper
- (1) **thrive** in a society, (2) **thrive** on pressure Without investment, a business cannot **thrive**.

### exotic

- adj. originating from or characteristic of a foreign country or culture; strikingly unusual, uncommon, or intriguingsynonym: foreign, alien, unfamiliar
- exotic species, (2) exotic vacation
   love trying exotic foods from different cultures.

# hydrothermal

adj. relating to hot water or steam, especially in the Earth's crust, and the thermal energy and chemical reactions that occur as a result

synonym: geothermal, thermal, volcanic

(1) **hydrothermal** vents, (2) **hydrothermal** chemistry The **hydrothermal** activity in this area creates a unique environment for marine creatures.

#### vent

 a small opening to escape or release gas, air, liquid, etc.; activity or process that frees or expresses strong creative energy or emotion

synonym: duct, outlet, venthole

(1) volcanic vent, (2) vent tube

He gave **vent** to his anger by playing the guitar.

### nutrient

 any substance that is essential for the maintenance and growth of living things

*synonym*: food, vitamin

(1) nutrient medicine, (2) a nutrient for hair

They used fast-acting **nutrients** on the flowers in the flower beds.

# carbohydrate

 (also carb) any of a class of organic compounds that includes sugars, starch, and cellulose and are a principal source of energy in the diet of animals

synonym: sugar, starch, cellulose

(1) complex **carbohydrate**, (2) **carbohydrate** metabolism Foods high in **carbohydrates** include bread, pasta, and rice.

# integral

adj. necessary to make a whole complete; essential, or fundamental; combining with something else to form a whole; (noun, of mathematics) a fundamental concept in calculus that represents the area under a curve between two points on a graph

synonym: essential, fundamental, indispensable

(1) integral function, (2) integral component

Effective communication is an **integral** part of any successful team.

#### noir

 adj. a type of film or literature that emphasizes crime, darkness, and moral ambiguity, often using shadowy, low-light cinematography or atmospheric prose; meaning "black" or "dark" in French

synonym: dark, shadowy, black

(1) **noir** crime novel, (2) **noir** atmosphere

The film **noir** genre is known for its dark and brooding atmosphere.

brew

 to make beer or tea by mixing a substance with hot water

*synonym*: make, prepare

(1) brew a cup of tea, (2) brew beer

I am going to **brew** some coffee this morning.

associate

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

synonym: tie in, link, consociate

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

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

geography

 a field of science devoted to the study of the lands, features, inhabitants, and phenomena of the Earth

synonym: landscape, terrain, topography

(1) **geography** class, (2) economic **geography** 

She did well on her **geography** exam.

locate

v. to specify or determine the exact position of someone or something

synonym: discover, find, place

(1) locate a missing pet, (2) locate a tumor

The robot can accurately **locate** construction material.

vertical

adj. upright or perpendicular to a horizontal surface or line synonym: perpendicular, upright, plumb

(1) vertical takeoff, (2) vertical axis

The ladder leaned against the **vertical** surface of the building.

tradition

 a belief, custom, or way of doing something that has been passed down from generation to generation within a group or society

synonym: custom, practice, ritual

(1) a tradition of a culture, (2) against tradition

It is a **tradition** in many families to have a big Thanksgiving dinner with all their relatives.

### horizontal

adj. parallel to the ground or in a baseline; being at the same level as all members of a group

synonym: even, lying, parallel

(1) horizontal lines, (2) horizontal stripes

Airplanes need **horizontal** tails to improve stability.

### implement

- v. to put a decision, plan, or system into effect synonym: execute, enforce, put through
- (1) **implement** a corporate strategy, (2) **implement** security measures

The government promised to **implement** a new system to control the financial crisis.

#### instance

- n. a particular example or single occurrence of somethingsynonym: example, sample, illustration
- (1) for **instance**, (2) notable **instance**

These articles cite five **instances** of climate change.

# soybean

 a legume crop widely cultivated for its nutritious seeds, often ground into meal or pressed into oil for food products, with other uses including animal feed, fuel, and industrial applications

synonym: soya, edamame

(1) **soybean** oil, (2) **soybean** production

The farmer harvested his **soybean** crop and took it to market.

# 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.

### wheat

 a cereal plant that is the most important kind grown in temperate countries, the grain of which is ground to make flour for bread, pasta, pastry, etc

synonym: grain, cereal

(1) harvesting wheat, (2) wheat crop

The farmer grew **wheat** on his land.

#### coconut

- the large, hard-shelled seed of a tropical palm, which has a fibrous husk surrounding a single-seeded nut
- (1) coconut milk, (2) coconut oil

He cracked open a **coconut** to drink the milk.

#### nutritional

adj. of or relating to the substance required by the body to maintain health and growth

synonym: nourishing, healthy, wholesome

(1) nutritional supplement, (2) bit of nutritional yeast

The **nutritional** value of the food should be clearly labeled on the packaging.

### quo

 the existing state or condition of something, especially in relation to a particular situation or issue

synonym: status, condition, state

(1) status **quo** politician, (2) **quo** warranto

The company has been successful in maintaining the status **quo**.

### progeny

n. the descendants or offspring of a person, animal, or plant

synonym: offspring, children, descendants

(1) progeny viral DNA, (2) progeny of plants

The royal family has much **progeny** scattered across the globe.

### abundance

 a significant amount of something; the situation in which there is too much of something synonym: plenty, affluence, plentitude

(1) an age of **abundance**, (2) an **abundance** of examples A healthy farm provides an **abundance** of food.

# **Session 2: Spelling**

1. primary ben\_\_\_\_ry

2. s\_k a lot of capital

3. ex\_\_\_c vacation

4. am\_\_o acid

5. laundry de nt

6. me\_\_\_\_n in a report

7. mo n poetry

8. heavy hy\_\_\_en

9. c p field

- a person who receives benefits or advantage from something, especially a financial trust or a will
- v. to submerge or go down below the surface of a liquid or substance; to decline or deteriorate; to cause something to go down into a liquid substance or sink into something else

adj. originating from or characteristic of a foreign country or culture; strikingly unusual, uncommon, or intriguing

- n. compounds and functional groups that contain a basic nitrogen atom with a lone pair (NH2) that combine to make protein
- a substance used for washing or cleaning, especially one that can remove dirt or stains effectively
- v. to speak or write about something or someone briefly
- adj. of or belonging to the present time or recent times
- the chemical element that is the lightest gas is colorless, odorless, tasteless, and combines with oxygen to form water
- a plant that is cultivated in large amounts, particularly for food

ANSWERS: 1. beneficiary, 2. sink, 3. exotic, 4. amino, 5. detergent, 6. mention, 7. modern, 8. hydrogen, 9. crop

to give off or send out something such 10. e t air pollution ν. as light, heat, sound, gas, etc. 11. man\_\_\_\_re an enzyme to make goods in large numbers, ν. usually in a factory using machines 12. an ab\_\_\_\_ce of examples a significant amount of something; the n. situation in which there is too much of something a small container or envelope that holds 13. pa\_\_\_t data network one or more items typically used for storing or transporting items like food, medicine, or marketing materials 14. la\_\_\_\_y accepted adv. virtually entirely; to a large degree 15. volcanic v\_\_t a small opening to escape or release gas, air, liquid, etc.; activity or process that frees or expresses strong creative energy or emotion a person who has never had sex; 16. enter vi\_\_\_n territory n. (adjective) being used or worked for the first time a workplace for the conduct of scientific 17. medical l b n. research; a laboratory one of a group of a coworker, especially 18. former co\_\_\_\_ue n. in a profession or a business 19. co e augmented reality to join or merge to form a single thing or group 20. mi\_\_\_\_es sterilizer a tiny living thing that can only be seen with a microscope and that may cause

ANSWERS: 10. emit, 11. manufacture, 12. abundance, 13. packet, 14. largely, 15. vent, 16. virgin, 17. lab, 18. colleague, 19. combine, 20. microbe

disease

27. survive, 28. specifically, 29. integral

30.	carate metabolism	n.	(also carb) any of a class of organic compounds that includes sugars, starch, and cellulose and are a principal source of energy in the diet of animals	
31.	int biology	n.	any small creature that has six legs and a body divided into three sections	
32.	sue a plane crash	<i>v</i> .	to live or exist despite a dangerous event or period	
33.	emissions of grese gases	n.	a building with walls and roof made chiefly of transparent material, such as glass, for growing plants in	
34.	bw a cup of tea	<i>v</i> .	to make beer or tea by mixing a substance with hot water	
35.	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	
36.	prole trade	adj.	making or likely to make material gain or profit	
37.	q_o warranto	n.	the existing state or condition of something, especially in relation to a particular situation or issue	
38.	the duon of insurance	n.	the length of time something lasts or continues	
39.	bioplastic designed to biode	v.	to decay naturally by microorganisms, such as bacteria and fungi	
40.	manre a product	v.	to make goods in large numbers, usually in a factory using machines	
ANSWERS: 30. carbohydrate, 31. insect, 32. survive, 33. greenhouse, 34. brew, 35. develop, 36. profitable, 37. quo, 38. duration, 39. biodegrade, 40. manufacture				

Vocab-Builder Ref from "Lisa Dyson: A forgotten Space Age technology could change how we grow food | TED Talk" (102 words)

adj. making or likely to make material gain 41. a pro\_\_\_\_le job or profit 42. c p herbicide a plant that is cultivated in large amounts, particularly for food a tiny living thing that can only be seen 43. pathogenic mi e n. with a microscope and that may cause disease 44. co\_\_\_\_e electricity to spend something, especially fuel, energy, or time, in a large amount 45. b w beer to make beer or tea by mixing a ν. substance with hot water 46. sup\_\_\_\_ge economic growth to increase the power or energy of something 47. ca e customers' hearts to catch a person or an animal and ν. confine them in an area which they cannot escape 48. ov\_\_\_ok a street to fail to notice something; to watch ν. over someone; to provide a view from above the descendants or offspring of a 49. pr\_\_\_y of plants n. person, animal, or plant 50. pr s improvement a series of actions or operations n. 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

ANSWERS: 41. profitable, 42. crop, 43. microbe, 44. consume, 45. brew, 46. supercharge, 47. capture, 48. overlook, 49. progeny, 50. process

suitable for consumption or use in other

dairy products

ANSWERS: 51. jet, 52. mention, 53. microorganism, 54. biodegrade, 55. horizontal, 56. implement, 57. distant, 58. minimal, 59. spaceship, 60. astronaut, 61. convert, 62. lab

ANSWERS: 63. planet, 64. acid, 65. acid, 66. jet, 67. specific, 68. astronaut, 69. approximately, 70. cult, 71. packet

ANSWERS: 72. livestock, 73. process, 74. soybean, 75. vertical, 76. specifically, 77. livestock, 78. primarily, 79. recycle, 80. mar, 81. nutrient

ANSWERS: 82. cultivate, 83. minimal, 84. rainforest, 85. progeny, 86. integral, 87. fragrance, 88. horizontal, 89. wheat, 90. roughly, 91. flavoring

ANSWERS: 92. geography, 93. spaceship, 94. virtue, 95. modern, 96. fragrance, 97. sustain, 98. ecosystem, 99. citrus, 100. exotic, 101. carbohydrate

Vocab-Builder Ref from "Lisa Dyson: A forgotten Space Age technology could change how we grow food | TED Talk" (102 words)

111. adon of vectors	n.	the act or process of adding something to something else; the process of adding numbers
112. stress prn	n.	a molecule made up of a long chain of amino acids, which is essential for the structure and function of the body's tissues
113. aste with people widely	ν.	to mentally connect someone or something with someone or something else
114. the benry of a trust	n.	a person who receives benefits or advantage from something, especially a financial trust or a will
115. acquire a vie	n.	high moral standards in behavior or attitudes
116. cot milk	n.	the large, hard-shelled seed of a tropical palm, which has a fibrous husk surrounding a single-seeded nut
117. cae a glimpse	v.	to catch a person or an animal and confine them in an area which they cannot escape
118. notable ince	n.	a particular example or single occurrence of something
119. a cold cle	n.	the weather in a particular location averaged over some long period
120. ct members	n.	a small religious group, especially one that is not part of a larger religion and that is regarded as outside the norm; followers of an exclusive system of beliefs and practices

ANSWERS: 111. addition, 112. protein, 113. associate, 114. beneficiary, 115. virtue, 116. coconut, 117. capture, 118. instance, 119. climate, 120. cult

ANSWERS: 121. sustainable, 122. insect, 123. agriculture, 124. spacecraft, 125. consume, 126. carbon, 127. oxide, 128. largely, 129. tradition, 130. primarily, 131. industrial, 132. palm

135. ro\_\_\_\_y speaking
 136. nu us countries
 adv. approximately but not precisely; with a violent manner
 adj. amounting to a large indefinite number

137. collaborate with co\_\_\_\_ues n. one of a group of a coworker, especially in a profession or a business

139. the film c w

140. a di t memory

141. ov ok that fact

142. a ben\_\_\_\_al result

144. th e in a society

143. bit of nut\_\_\_\_al yeast

138. spa\_\_\_\_ft launch

n. a vehicle designed to travel through space, typically carrying astronauts or

n. a group of people who work together, especially on a ship or airplane

scientific instruments

adj. far away in space, time, or where you are; far apart in relevance, relationship, or kinship

v. to fail to notice something; to watch over someone; to provide a view from above

adj. helpful, useful, or sound; promoting or enhancing well-being

adj. of or relating to the substance required by the body to maintain health and growth

v. to grow vigorously; to make steady progress

ANSWERS: 133. involve, 134. detergent, 135. roughly, 136. numerous, 137. colleague, 138. spacecraft, 139. crew, 140. distant, 141. overlook, 142. beneficial, 143. nutritional, 144. thrive

 a very small living thing that may exist in its single-celled form or as a colony of cells and is too small to be seen without a microscope

v. to breathe out air or vapor from the lungs or mouth; to release or emit something slowly or gently

adj. clearly defined or particular to a certain thing or situation; distinct, explicit, and precise

ANSWERS: 145. sustain, 146. virgin, 147. combine, 148. amino, 149. coconut, 150. rainforest, 151. abundance, 152. microorganism, 153. exhale, 154. specific

152. pathogenic mic ism

153. ex\_\_\_e a big sigh

154. sp\_\_\_\_ic instructions

types of things or people being included in something; a range of different things or people 157. m r the reputation

to damage or spoil the appearance or surface of something

a substance or combination of n. substances used to add taste or aroma to food or drink; a controlled substance used to mask the taste or odor of another substance

to specify or determine the exact ν. position of someone or something

a legume crop widely cultivated for its n. nutritious seeds, often ground into meal or pressed into oil for food products, with other uses including animal feed, fuel, and industrial applications

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

adj. a type of film or literature that emphasizes crime, darkness, and moral ambiguity, often using shadowy, low-light cinematography or atmospheric prose; meaning "black" or "dark" in French

ANSWERS: 155. develop, 156. diversity, 157. mar, 158. flavoring, 159. locate, 160. soybean, 161. discovery, 162. noir

- 158. natural fl ng
- 159. lo\_\_\_e a tumor
- 160. so n production
- 161. the great di\_\_\_\_ry of the century
- 162. n r atmosphere

163. principles of s development	usle	adj.	able to continue or be continued for a long time
164. este a fa	air value	ν.	to guess or calculate the cost, size, value, etc. of something
165. imnt se	curity measures	<i>v</i> .	to put a decision, plan, or system into effect
166. cot fat ir	nto energy	<i>v</i> .	to have a talk with someone; (adjective) reversed in order, relation, or action
167. status q_o po	litician	n.	the existing state or condition of something, especially in relation to a particular situation or issue
168. este this three pounds	chicken to weigh	ν.	to guess or calculate the cost, size, value, etc. of something
169. indal al	cohol	adj.	of or relating to or resulting from industry
170. the p_m side	e of the forearm	n.	the inner surface of the hand from the wrist to the base of the fingers; any plant of the family Palmae having an unbranched trunk crowned by large pinnate or palmate leaves
171. a nunt fo	or hair	n.	any substance that is essential for the maintenance and growth of living things
172. hydma	al chemistry	adj.	relating to hot water or steam, especially in the Earth's crust, and the thermal energy and chemical reactions that occur as a result
173. a young bud o	f rd	n.	a tall, slender-leaved plant that grows in water; a thin strip of wood or metal that vibrates to produce sound in certain musical instruments such as oboe, clarinet, and saxophone

ANSWERS: 163. sustainable, 164. estimate, 165. implement, 166. convert, 167. quo, 168. estimate, 169. industrial, 170. palm, 171. nutrient, 172. hydrothermal, 173. reed

1/4. chemical adon	n.	to something else; the process of adding numbers
175. cute relationships	<i>v</i> .	to prepare and foster land for growing crops or plants
176. ine a high degree of risk	ν.	to include or affect someone or something as a necessary part of something else
177. 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
178. for ince	n.	a particular example or single occurrence of something
179. silver oxe	n.	a chemical compound that contains at least one oxygen atom and one other element
180. the dity policy of the university	n.	the quality or fact of many different types of things or people being included in something; a range of different things or people
181. as nuus as the sand	adj.	amounting to a large indefinite number
182. biomass fI	n.	a substance that is typically burned to generate heat or energy
183. et a gamma ray	<i>v</i> .	to give off or send out something such as light, heat, sound, gas, etc.
184. positive feedback Ip	n.	a shape like a curve or a circle made by something long and thin, such as a piece of string, that bends round and crosses itself

ANSWERS: 174. addition, 175. cultivate, 176. involve, 177. discovery, 178. instance, 179. oxide, 180. diversity, 181. numerous, 182. fuel, 183. emit, 184. loop

185. short duon	n.	the length of time something lasts or continues
186. appely 3 feet long	adv.	close to a specific number or time but not exactly that number or time
187. vt tube	n.	a small opening to escape or release gas, air, liquid, etc.; activity or process that frees or expresses strong creative energy or emotion
188. loe a missing pet	<i>v</i> .	to specify or determine the exact position of someone or something
189. ree the cardboard boxes	ν.	to sort and collect things to process them and produce valuable materials that can be used again
190. supge the battery	<i>v</i> .	to increase the power or energy of something
191. a tron of a culture	n.	a belief, custom, or way of doing something that has been passed down from generation to generation within a group or society
192. ond computer	ν.	to become or make part of a team, group, or system; to install, activate, or begin using a piece of equipment or software; (adjective) included or integrated into a particular system, machine, or device
193. economic gehy	n.	a field of science devoted to the study of the lands, features, inhabitants, and phenomena of the Earth
194. the cw of a fishing boat	n.	a group of people who work together, especially on a ship or airplane

ANSWERS: 185. duration, 186. approximately, 187. vent, 188. locate, 189. recycle, 190. supercharge, 191. tradition, 192. onboard, 193. geography, 194. crew

195. ve\_\_\_\_al takeoff adj. upright or perpendicular to a horizontal surface or line 196. th e on pressure to grow vigorously; to make steady progress any of the nine large celestial bodies 197. save the pl t n. that circle in the solar system; any celestial body that revolves around a star 198. hy\_\_\_\_en gas the chemical element that is the lightest gas is colorless, odorless, tasteless, and combines with oxygen to form water 199. ca\_\_\_n dioxide a chemical element that can be found in n. pure form as diamond or graphite, and it is also an essential part of coal and oil and is found in all plants and animals a building with walls and roof made 200. exotic plants in a gre\_\_\_\_se n. chiefly of transparent material, such as glass, for growing plants in the practice or science of cultivating the 201. organic agr re n. land or raising stock 202. smokeless f a substance that is typically burned to n. generate heat or energy 203. effects of cl e change the weather in a particular location n. averaged over some long period to breathe out air or vapor from the 204. ex\_\_\_e cigarette smoke lungs or mouth; to release or emit something slowly or gently

ANSWERS: 195. vertical, 196. thrive, 197. planet, 198. hydrogen, 199. carbon, 200. greenhouse, 201. agriculture, 202. fuel, 203. climate, 204. exhale

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

1.	The government should do more to support environmentally agriculture.
adj	able to continue or be continued for a long time
2.	Hydrogen and oxygen to form water.
ν.	to join or merge to form a single thing or group
3.	The Prohibition amendment made bootlegging
adj	making or likely to make material gain or profit
4.	The military incarcerated him for the of the war.
n.	the length of time something lasts or continues
5.	During the unloading, the container box a clicking sound.
ν.	to give off or send out something such as light, heat, sound, gas, etc.
6.	Mercury is the closest to the sun.
n.	any of the nine large celestial bodies that circle in the solar system; any celestial body that revolves around a star
7.	She struggled to the children's reading habits.
v.	to supply enough of what somebody or something needs to survive or exist; to accept as valid
8.	The company has been successful in maintaining the status
n.	the existing state or condition of something, especially in relation to a particular situation or issue
	SWERS: 1. sustainable, 2. combine, 3. profitable, 4. duration, 5. emits, 6. planet, sustain, 8. quo

24.	We cannot an opportunity for great success.
v.	to fail to notice something; to watch over someone; to provide a view from above
25.	Within a few years, no forests will remain.
n.	a person who has never had sex; (adjective) being used or worked for the first time
26.	The flew over the ocean at high speed, reaching its destination in hours.
n.	a type of aircraft that is powered by one or more jet engines and can fly at high speeds, typically over long distances
27.	In private corporations provide healthcare services.
n.	the act or process of adding something to something else; the process of adding numbers
28.	The recipe calls for adding a dash of vanilla to the batter.
n.	a substance or combination of substances used to add taste or aroma to food or drink; a controlled substance used to mask the taste or odor of another substance
29.	This high-performance camera is compact enough to fit in the of your hand.
n.	the inner surface of the hand from the wrist to the base of the fingers; any plant of the family Palmae having an unbranched trunk crowned by large pinnate or palmate leaves
30.	Foods high in include bread, pasta, and rice.
n.	(also carb) any of a class of organic compounds that includes sugars, starch, and cellulose and are a principal source of energy in the diet of animals
	SWERS: 24. overlook, 25. virgin, 26. jet, 27. addition, 28. flavoring, 29. palm, 30. bohydrates

31.	It is a in many families to have a big Thanksgiving dinner with all their relatives.
n.	a belief, custom, or way of doing something that has been passed down from generation to generation within a group or society
32.	I need to buy a of biscuits from the store.
n.	a small container or envelope that holds one or more items typically used for storing or transporting items like food, medicine, or marketing materials
33.	The Prime Minister will pay a courtesy visit to the Nobel laureate's
n.	a workplace for the conduct of scientific research; a laboratory
34.	The scarcity most severely impacted the manufacturing sector
n.	a substance that is typically burned to generate heat or energy
35.	A healthy farm provides an of food.
n.	a significant amount of something; the situation in which there is too much of something
36.	University is a great place to our minds and expertise.
v.	to prepare and foster land for growing crops or plants
37.	She had many good and few faults.
n.	high moral standards in behavior or attitudes
38.	The sun set over the crest of hills.
adj	far away in space, time, or where you are; far apart in relevance, relationship, or kinship
	SWERS: 31. tradition, 32. packet, 33. lab, 34. fuel, 35. abundance, 36. cultivate, virtues, 38. distant

<ul><li>39. The of the roses filled the air and brought a smile to my face.</li><li>n. a pleasant or sweet smell, especially one that is natural to a particular substance</li></ul>
40. These are more prevalent above a certain latitude.  n. any small creature that has six legs and a body divided into three sections
41. Human conservation efforts often fail unexpectedly because they disturb the balance of the
n. all the plants and living creatures in an area and the way they affect each other and the environment
42. The scientist conducted a study that provided details about the species' behavior.
adj. clearly defined or particular to a certain thing or situation; distinct, explicit, and precise
<ul><li>43. The majority of synthetic vitamins are from oil.</li><li>ν. to make goods in large numbers, usually in a factory using machines</li></ul>
<ul><li>44. I was able to the moment on film.</li><li>ν. to catch a person or an animal and confine them in an area which they cannot escape</li></ul>
<ul><li>45. A smaller car will less fuel.</li><li>ν. to spend something, especially fuel, energy, or time, in a large amount</li></ul>
46. The royal family has much scattered across the globe.  n. the descendants or offspring of a person, animal, or plant
ANSWERS: 39. fragrance, 40. insects, 41. ecosystem, 42. specific, 43. manufactured 44. capture, 45. consume, 46. progeny

47.	to him that I had seen his sister at the grocery store earlier that day.
ν.	to speak or write about something or someone briefly
48.	and weather have an impact on every part of our lifestyles.
n.	the weather in a particular location averaged over some long period
49. <sup>-</sup>	This ad campaign is aimed at young women.
adv.	only associated with or meant for one thing
50.	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
51. <sup>-</sup>	The body needs a certain amount of to build and repair tissues.
n.	a molecule made up of a long chain of amino acids, which is essential for the structure and function of the body's tissues
	We must a new system to streamline our workflow and increase efficiency.
<i>v</i> .	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
	The leader promised his followers that they would achieve enlightenment if they followed his teachings.
n.	a small religious group, especially one that is not part of a larger religion and that is regarded as outside the norm; followers of an exclusive system of beliefs and practices
	SWERS: 47. mentioned, 48. Climate, 49. specifically, 50. process, 51. protein, 52. elop, 53. cult

54. The robot can accurately construction material.
v. to specify or determine the exact position of someone or something
<ul> <li>55. The abandoned ship slowly began to into the murky waters of the harbor.</li> <li>ν. to submerge or go down below the surface of a liquid or substance; to decline or deteriorate; to cause something to go down into a liquid substance or sink into something else</li> </ul>
56. The passengers were instructed to the aircraft as quickly as possible so that the flight could depart on time.
v. to become or make part of a team, group, or system; to install, activate, or begin using a piece of equipment or software; (adjective) included or integrated into a particular system, machine, or device
57. These descriptions are based on a number of assumptions.
adj. amounting to a large indefinite number
58. I love trying foods from different cultures.  adj. originating from or characteristic of a foreign country or culture; strikingly unusual, uncommon, or intriguing
59. The scratches on the car its otherwise perfect appearance.
v. to damage or spoil the appearance or surface of something
60. During pregnancy, the stomach generates less than usual.
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
61. The shuttle trained for months before embarking on the space mission.
n. a person trained by a space agency to travel outside the Earth's atmosphere
ANSWERS: 54. locate, 55. sink, 56. onboard, 57. numerous, 58. exotic, 59. marred, 60. acid, 61. astronaut

79 design has become more focused on human nature aspect than ever before.  adj. of or relating to or resulting from industry
<ul><li>80. The blood's red coloring comes from iron</li><li>n. a chemical compound that contains at least one oxygen atom and one other element</li></ul>
<ul><li>81. The and the oxygen react and then form water.</li><li>n. the chemical element that is the lightest gas is colorless, odorless, tasteless, and combines with oxygen to form water</li></ul>
82. I want to my sadness into strength.
v. to have a talk with someone; (adjective) reversed in order, relation, or action
83. The destruction of the is a ticking time bomb for the Earth.
<ul> <li>a forest rich in biodiversity that is generally found in tropical settings with heavy annual rainfall</li> </ul>
84. We largely the circuit board of cell phones because they contain a lot of valuable metals.
v. to sort and collect things to process them and produce valuable materials that can be used again
85 thrive on the surface of the human skin.
<ul> <li>a tiny living thing that can only be seen with a microscope and that may cause disease</li> </ul>
86. The process was carried out at cost.
adj. tiny in amount; the least possible
ANSWERS: 79. Industrial, 80. oxide, 81. hydrogen, 82. convert, 83. rainforest, 84. recycle, 85. Microbes, 86. minimal

adj.	
-	of or relating to the substance required by the body to maintain health and growth
96	feed is made from fodder crops.
n.	farm animals and birds such as cows, sheep, and chickens
97. T	hey the engine to get more power.
ν.	to increase the power or energy of something
98. T	he in the wind instrument needs to be replaced.
	a tall, slender-leaved plant that grows in water; a thin strip of wood or metal that vibrates to produce sound in certain musical instruments such as oboe, clarinet, and saxophone
99. I	am going to some coffee this morning.
<i>v</i> .	to make beer or tea by mixing a substance with hot water
100. I	Nevada is a desert state.
adv.	virtually entirely; to a large degree
101. <sup>-</sup>	This company was granted a patent for its resin manufacturing process.
n.	compounds and functional groups that contain a basic nitrogen atom with a lone pair (NH2) that combine to make protein
102. I	decided to seek counseling on the advice of my
n.	one of a group of a coworker, especially in a profession or a business
	WERS: 95. nutritional, 96. Livestock, 97. supercharged, 98. reed, 99. brew, 100. ly, 101. amino, 102. colleague