# **Englist.me**

### Vocabulary Builder Reference from...

Sarah Rugheimer: The search for microscopic aliens | TED Talk

https://www.ted.com/talks/sarah\_rugheimer\_the\_sear ch\_for\_microscopic\_aliens



### All Words

#### **IMPORTANT**

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

alien

 a person who comes from a different country, race, or group; a form of life assumed to exist outside the Earth or its atmosphere

*synonym*: foreigner, unfamiliar, unknown

(1) alien fungi, (2) resident aliens

**Alien** species have drastically altered the ecosystem in this area.

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.

detect

v. to find or recognize something, especially something difficult to see, hear, etc.

synonym: catch, observe, notice

(1) **detect** a bad event, (2) **detect** smuggling across borders The security camera has **detected** four intruders.

hurdle

1. a barrier or obstacle that must be overcome

*synonym*: obstacle, barrier, challenge

(1) overcome hurdles, (2) hurdle race The company faced several **hurdles** in the development of its

new product.

#### confirm

to support or establish the truth or certainty of something previously believed or suspected to be the case

synonym: affirm, verify, assure

(1) **confirm** the diagnosis, (2) **confirm** a transaction Please write to **confirm** your reservation.

#### telescope

- a device like a tube in shape containing lenses used to n. magnify and observe distant objects
- (1) a binocular **telescope**, (2) look through a **telescope** This facility has the largest astronomical **telescope** in the country.

#### interpret

to explain or assign the meaning of information, actions, etc.

synonym: decode, decipher, analyze

(1) **interpret** a graph, (2) **interpret** the question Different people might interpret this news differently.

#### extraterrestrial

adj. relating to or existing outside of the Earth's atmosphere or planetary boundaries; pertaining to beings or phenomena that originate from beyond the Earth

synonym: alien, outer, otherworldly

(1) extraterrestrial planet, (2) extraterrestrial intelligence Scientists are constantly searching for signs of extraterrestrial life in the universe.

#### 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.

#### optimistic

adj. hoping or expecting that good thing will happen or something will be successful

synonym: hopeful, auspicious, cheery

(1) he is **optimistic**, (2) **optimistic** outlook

Most executives were **optimistic** about future business conditions.

#### radiation

n. the energy that comes from a nuclear reaction in the form of rays, waves, or particles and that can be hazardous to health

synonym: dissemination, emission, irradiation

(1) exposure to **radiation**, (2) electromagnetic **radiation** He tried every possible treatment, including chemotherapy and **radiation** therapy.

#### dominate

v. to have or control a lot of power and influence over somebody or something

synonym: govern, rule, prevail

(1) **dominate** possession, (2) **dominate** over the weak The perspective of his right brain **dominates** his consciousness.

### biosphere

 n. the part of the Earth and its atmosphere in which living organisms exist, including plants, animals, and microorganisms

synonym: ecosphere, ecospace, ecosystem

(1) terrestrial **biosphere**, (2) artificial **biosphere**The balance of the **biosphere** is crucial for the survival of species.

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.

#### atmosphere

- n. the mass of air that surrounds the Earth; the pervading tone or mood of a place, situation, or creative worksynonym: air, ambiance, circumstances
- (1) carbon dioxide in the **atmosphere**, (2) a convivial **atmosphere**

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

#### astronomer

- n. a physicist who studies astronomysynonym: stargazer, cosmologist, astrophysicist
- (1) amateur astronomer,(2) solar astronomerThis question has fascinated solar astronomers for decades.

### oxygen

- the chemical element with the symbol O that is present in air and water and is necessary for people, animals, and plants to live
- (1) the hydrogen binds the oxygen, (2) lack of oxygen The passenger grabbed for the oxygen mask.

#### methane

- a chemical compound with the chemical formula CH4 with no smell or color, often used as a fuel
- (1) atmospheric **methane**, (2) reduce **methane** emissions The ignition of **methane** gas in the plant killed five employees.

#### nit

- n. the egg of a louse (= that is a tiny insect that lives in human hair) or some other insect; a foolish person
- (1) **nit** in the dog's fur, (2) she is a little **nit** Careful brushing can remove **nit**.

#### 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.

#### indicate

v. to show, point out, or make known something, often through a sign or a symbol; to suggest or imply

something without stating it directly

synonym: hint, suggest, show

(1) **indicate** a preference, (2) **indicate** an error

The data **indicates** that the company's profits have steadily increased over the past quarter.

#### astronomy

the scientific study of objects and matter outside the n. Earth's atmosphere, especially the positions, motions, and evolution of celestial bodies

synonym: astrophysics, stargazing, cosmology

- (1) astronomy science, (2) a branch of astronomy He had a deep passion for extragalactic astronomy and spent hours observing the night sky.
- the path of an object around a celestial body, especially a planet, star, or moon, under the influence of gravity. synonym: path, course, trajectory
- (1) the **orbit** of the moon, (2) a planetary **orbit** The rocket engine is used to put the satellite into **orbit**.

adv. in a way that is very difficult to believe; exceedingly or extremely

synonym: enormously, exceptionally, extraordinarily

(1) incredibly cheerful character, (2) get incredibly insecure

Several cities are experiencing incredibly high unemployment rates.

#### determinant

a factor, circumstance, or condition that contributes to n. the shaping, influencing, or determining of a particular outcome or result

synonym: cause, factor, element

(1) environmental **determinant**, (2) a **determinant** of crop yields

One **determinant** of success is having a positive attitude and a strong work ethic.

orbit

incredibly

#### firefly

- a flying nocturnal insect common in warm regions with a tail that shines in the dark
- (1) the glow of a **firefly**, (2) sparkle like **firefly** In that country, there is a culture of eating live **firefly** squid.

### spotlight

 a beam of light used to illuminate a particular area or person

synonym: limelight, stage light, highlight

(1) **spotlight** effect, (2) **spotlight** moment The singer was in the **spotlight** as she performed her hit song.

#### continent

one of the earth's large landmasses; (adjective)
 abstaining from your feelings, especially your desire to have sex

synonym: landmass, (adjective) chaste, (adjective) pure

(1) the inland of a **continent**, (2) **continent** urinary diversion Flight across the **continent** was a daring adventure in its day.

### amazing

adj. extremely surprising, especially in a way that you like or admire

synonym: exceptional, extraordinary, wonderful

(1) **amazing** advances, (2) the most **amazing** feeling The golfer recorded an **amazing** distance.

#### overcome

v. to succeed in controlling or dealing with something, such as a problem or difficulty; to defeat or overwhelm someone

synonym: beat, confound, overwhelm

(1) **overcome** opponents, (2) **overcome** all difficulties He tried to **overcome** a bad reputation and win the election.

### technological

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

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

#### barrier

a fence or other obstruction that makes it hard to move or get in; any condition that makes it difficult to make progress or to achieve an objective

synonym: border, barricade, fence

(1) cost barrier, (2) information barrier

The police placed a **barrier** across the street to halt traffic.

#### 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.

### biosignature

distinctive chemical or physical features that indicate the presence of past or current life

*synonym*: indicators, signs, evidence

(1) biosignatures detection, (2) biosignatures discovery Scientists are searching for **biosignatures** on other planets that could indicate the presence of life.

#### tricky

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

synonym: thorny, problematic, crafty

(1) **tricky** problem, (2) a **tricky** recipe to follow We have discussed the entirety of this **tricky** problem.

#### necessarily

adv. in an essential manner; in such a way as could not be otherwise

synonym: inevitable, certainly, automatically

(1) not **necessarily** a problem, (2) **necessarily** true This accident was something that happened **necessarily**.

### biology

- the scientific study of life and the natural processes of living things
- (1) evolutionary biology, (2) cell and molecular biology In junior high school, we had to dissect a frog in biology

class.

### geology

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

synonym: earth science

(1) bureau of **geology**, (2) local **geology** 

He was a visiting **geology** professor at the University of Tokyo.

### identify

v. to recognize someone or something and say or prove who or what they are

synonym: determine, specify, recognize

(1) **identify** handwriting, (2) **identify** gene sequences I will introduce you to how to **identify** the leading causes of the malfunction.

### preliminary

adj. serving as a preparation for something more important or extensive; introductory; taking place before the main event or decision

*synonym*: initial, preparatory, introductory

(1) **preliminary** investigation, (2) **preliminary** agreement Before starting the project, we need to go through some **preliminary** research and planning.

#### detection

 the act of discovering or identifying the presence of something

*synonym*: discovery, identification, recognition

(1) **detection** by the security software, (2) importance of early **detection** 

This smartphone has a collision detection function.

### phosphine

 a colorless, flammable gas that is made up of one phosphorus atom and three hydrogen atoms and has a fishy or garlic-like odor

synonym: phosphorus hydride, diphosphine, phosphorus trihydride

(1) phosphine gas, (2) organic phosphine

The synthesis of **phosphine** was first achieved in the 17th

#### century.

### compelling

adj. arousing strong and irresistible interest, attention, or admiration

synonym: tempting, captivating, influential

(1) tell a **compelling** story, (2) new and **compelling** evidence

His **compelling** presentation deeply moved everyone.

#### confuse

v. to mistake one thing for another; to make somebody hard to understand

synonym: confound, obscure, disorient

(1) **confuse** the listener, (2) **confuse** fantasy with reality Her remarks **confused** the debate.

#### hell

the place thought to be where bad people go and are punished after death, often depicted as being located beneath the earth; an extraordinarily unpleasant or difficult place

synonym: inferno, agony, misery

(1) run like **hell**, (2) **hell** broke loose

The battlefield became **hell** on earth.

### temperature

- n. the degree of hotness or coldness of a thing or placesynonym: climate, warmth, degree
- (1) extreme **temperatures**, (2) the atmospheric **temperature**

Cities around the world set records for highest **temperatures** this summer.

### degree

 a unit of measurement for angles, temperature, or level of proficiency or achievement; a rank or level of academic or professional attainment

synonym: level, qualification, diploma

(1) bachelor's **degree**, (2) **degree** centigrade

She received her degree in psychology from the university.

#### temperate

adj. mild or moderate in temperature or climate; exhibiting self-restraint, particularly about the consumption of food, drink, or other indulgences; showing moderation or restraint in behavior or attitude

synonym: moderate, mild, genial

(1) **temperate** grassland, (2) **temperate** behavior The **temperate** climate of the region made it an ideal vacation spot.

### reproduce

 to make a copy of something such as a picture, piece of text, music, etc.; to produce offspring through a sexual or asexual process

synonym: duplicate, breed, imitate

(1) **reproduce** the painting, (2) **reproduce** by myself By dividing and creating copies of themselves, bacteria **reproduce**.

### 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.

vet

n. (also a veterinarian) a person who has a medical degree trained to examine and take care of the health of animals; (verb) to carefully examine, investigate, or evaluate someone or something, often for the purpose of determining suitability or eligibility

synonym: veterinarian, inspector, examiner

(1) vet clinic, (2) vet check-up

We had to take our dog to the **vet** because she was not feeling well.

verify

v. to check that something exists or is true, or to prove that something is correct

synonym:

affirm, ascertain, confirm

(1) **verify** a document, (2) **verify** identity

We always **verify** all critical information independently.

#### unexpected

*adj.* not anticipated or regarded as likely to happen *synonym*: surprising, unanticipated, incredible

an unexpected visitor, (2) some unexpected events
 the unexpected rainstorm caused the collapse of the corral.

### photochemical

adj. relating to or caused by the chemical effects of light, particularly those that involve the absorption or emission of light by molecules in a reaction

synonym: photooxidative, photoreactive, phototoxic

(1) **photochemical** degradation, (2) **photochemical** reaction

**Photochemical** smog is a major problem in many urban areas.

### 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.

### profound

- adj. extremely great; sensed or experienced very strongly;displaying a high level of knowledge or comprehensionsynonym: deep, unsounded, far-reaching
- (1) a **profound** book, (2) the **profound** depths of the sea My mother's illness had a **profound** impact on us all.

### generation

all the people born and living at about the same time,
 regarded collectively; the production of heat or electricity

synonym: cohort, age group, era

	(1) <b>generation</b> gap, (2) the <b>generation</b> of electricity The younger <b>generation</b> has different values and beliefs than the older one.
sober	<ul><li>adj. not drunk or affected by alcohol; dignified in manner or character and committed to keeping promises</li><li>synonym: calm, lucid, temperate</li></ul>
	(1) <b>sober</b> discussion, (2) as <b>sober</b> as a judge He led a <b>sober</b> life.
distant	<ul><li>adj. far away in space, time, or where you are; far apart in relevance, relationship, or kinship</li><li>synonym: far, isolated, remote</li></ul>
	(1) a distant memory, (2) distant ancestors
	The sun set over the crest of <b>distant</b> hills.
weird	adj. extraordinary, unexpected, or difficult to explain synonym: bizarre, creepy, peculiar
	(1) a <b>weird</b> dress, (2) the state of being <b>weird</b>
	My computer has been acting weird recently.
density	<ul><li>n. the quality of compactness of a substance</li><li>synonym: tightness, viscosity</li></ul>
	(1) population <b>density</b> , (2) higher pixel <b>density</b>
	Do you know the <b>density</b> of the population in Hong Kong?
cotton	<ul> <li>a plant that is grown in warm countries and bears bolls containing seeds with soft and long hairs that are made into textile fiber and thread for sewing</li> </ul>
	(1) cotton cloth, (2) culture of cotton
	The price of raw <b>cotton</b> continued to rise.
molten	adj. in a liquid state as a result of being heated synonym: melted, liquefied, fused
	(1) a molten image, (2) molten lava
	The <b>molten</b> metal was poured into the mold.
	•

flare

claim

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

synonym: blaze, ignite, light up

- flare up into a major crisis, (2) the flare of a match
   The Sun flared and caused a sudden brightening in the sky.
- v. to assert that something is true; to demand or request something as one's own; to lay legal or moral right to something; (noun) a demand or assertion of a right or something that one believes to be true

synonym: assert, declare, maintain

(1) claim responsibility, (2) false claim

He wants to **claim** ownership of the abandoned property.

distinguish

v. to notice or understand the difference between two people or things

synonym: determine, differentiate, characterize

(1) **distinguish** these two things, (2) **distinguish** man from the other animals

This study **distinguished** four different ways to run a business.

ambiguity

the quality of being open to more than one interpretation; the uncertainty of meaning

synonym: uncertainty, vagueness, obscurity

- (1) free from **ambiguity**, (2) avoid **ambiguity** in writing The **ambiguity** in the instructions made it difficult for her to complete the task.
- an object, a piece of evidence, or some information that helps someone to find the answer to a problem, question, or mystery

synonym: hint, indication, inkling

(1) a **clue** about the crime, (2) a **clue** to the diagnosis The police couldn't find a **clue** to her whereabouts.

clue

#### 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.

### explore

v. to travel to or penetrate an area or a country to learn about it; to thoroughly examine a subject or a possibility to learn more about it

synonym: analyze, delve into, examine

(1) explore the world, (2) explore our optionsThe management must explore strategies to increase office

security.

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.

#### universe

 everything that exists, especially all physical matter, including planets, stars, galaxies, and all other forms of matter and energy

synonym: cosmos, macrocosm

(1) theory of the **universe**, (2) expansion of the **universe** The **universe** is about 13.8 billion years old.

debate

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

synonym: argument, discussion, dispute

(1) debate topic, (2) debate competition

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

#### stretch

v. to make or be capable of making anything longer or broader without hurting or breaking

synonym: lengthen, prolong, extend

(1) **stretch** along the coast, (2) **stretch** a story

Some herds have been observed to **stretch** hundreds of kilometers.

#### desire

- n. a strong feeling of wanting to have or do somethingsynonym: ambition, appetite, greed
- unsatisfied desire, (2) fleshly desire
   Low sexual desire typically correlates with low testosterone levels.

#### nuanced

adj. characterized by subtle differences in appearance, meaning, sound, etc.

synonym: fine, subtle, slight

(1) **nuanced** view, (2) the common but **nuanced** opinion The sommelier can distinguish **nuanced** variance in the flavor of the wine.

balance

 a condition in which everything has the same weight or force; something left after other parts have been taken away

synonym: equilibrium, counterpoise, remainder

(1) the **balance** of power, (2) asset on the company's **balance** sheet

Try to keep a **balance** between work and off.

#### dual

*adj.* having two parts, aspects, or elements *synonym*: twofold, binary, double

synonym: tworoid, biriary, double

(1) dual purpose, (2) dual nationality

This laptop has a **dual-core** processor, making it fast and efficient.

### skepticism

 an attitude of doubting or questioning that claims or statements are true or valuable or that something will happen; the disbelief in any claims of ultimate

### knowledge

synonym: distrust, doubt, suspicion

(1) natural **skepticism**, (2) **skepticism** toward bureaucracy This party expresses **skepticism** about the efficacy of the health insurance system.

#### teleport

 to transport or transmit instantly from one location to another, typically using advanced technology or imagined supernatural powers

synonym: beam, transport, transmit

(1) **teleport** objects through space, (2) **teleport** to any location in the world

The magician seemed to **teleport** instantly from one side of the stage to the other.

### kangaroo

 a large marsupial native to Australia with powerful hind legs for jumping and carrying young in a pouch on the mother's belly

synonym: bouncy, marsupial, joey

(1) giant kangaroo, (2) red kangaroo

The female **kangaroo** carries and nurses her young, or joey, in a pouch on her belly.

### intelligent

adj. having the capacity for thought and reason, especially to a high degree

synonym: brilliant, clever, competent

(1) an **intelligent** person, (2) **intelligent** assisting system **Intelligent** robots that can cooperate with humans have limited motor output for safety.

teem

- v. to be abuzz; to move in large numbers; to fall heavily synonym: brim, swarm, overflow
- (1) **teem** with activity, (2) **teem** down The city **teems** with traffic on holiday.

#### complexity

 the state or quality of being complicated or intricate and difficult to understand

synonym: intricacy, sophistication, elaboration

(1) cognitive complexity, (2) complexity theory

The project's **complexity** made it difficult for the team to complete it on time.

#### humble

adj. having or showing a modest or low estimate of one's quality or importance

synonym: modest, unpretentious, abject

(1) a **humble** cottage, (2) **humble** opinion

The nobler, the more **humble**.

#### uncertain

adj. not being sure of something; not being able to choose synonym: doubtful, skeptical, pending

(1) numerous **uncertain** factors, (2) take an **uncertain** attitude

She was **uncertain** about her friend's intentions.

# **Session 2: Spelling**

1.	bioures discovery	n.	distinctive chemical or physical features that indicate the presence of past or current life
2.	new and comng evidence	adj.	arousing strong and irresistible interest, attention, or admiration
3.	prs improvement	n.	a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products
4.	hue race	n.	a barrier or obstacle that must be overcome
5.	a prnd book	adj.	extremely great; sensed or experienced very strongly; displaying a high level of knowledge or comprehension
6.	ovme all difficulties	v.	to succeed in controlling or dealing with something, such as a problem or difficulty; to defeat or overwhelm someone
7.	dote over the weak	v.	to have or control a lot of power and influence over somebody or something
8.	teccal policy	adj.	based on scientific and industrial progress
9.	dissh man from the other animals	v.	to notice or understand the difference between two people or things

ANSWERS: 1. biosignature, 2. compelling, 3. process, 4. hurdle, 5. profound, 6. overcome, 7. dominate, 8. technological, 9. distinguish

10.	dee topic	n.	a formal discussion or argument of opposing viewpoints, often to persuade others to adopt a specific position; a public discussion, often on an issue of current interest, in which participants offer opinions and differing perspectives
11.	information bar	n.	a fence or other obstruction that makes it hard to move or get in; any condition that makes it difficult to make progress or to achieve an objective
12.	comty theory	n.	the state or quality of being complicated or intricate and difficult to understand
13.	inet the question	<i>v</i> .	to explain or assign the meaning of information, actions, etc.
14.	a mon image	adj.	in a liquid state as a result of being heated
15.	exe our options	v.	to travel to or penetrate an area or a country to learn about it; to thoroughly examine a subject or a possibility to learn more about it
16.	run like hl	n.	the place thought to be where bad people go and are punished after death, often depicted as being located beneath the earth; an extraordinarily unpleasant or difficult place
17.	bioures detection	n.	distinctive chemical or physical features that indicate the presence of past or current life
18.	vey identity	v.	to check that something exists or is true, or to prove that something is correct

ANSWERS: 10. debate, 11. barrier, 12. complexity, 13. interpret, 14. molten, 15. explore, 16. hell, 17. biosignature, 18. verify

19.	coe the listener	<i>v</i> .	to mistake one thing for another; to make somebody hard to understand
20.	the atmospheric temre	n.	the degree of hotness or coldness of a thing or place
21.	deon by the security software	n.	the act of discovering or identifying the presence of something
22.	bureau of gey	n.	a science that deals with the history of the earth as recorded in rocks
23.	phne gas	n.	a colorless, flammable gas that is made up of one phosphorus atom and three hydrogen atoms and has a fishy or garlic-like odor
24.	dissh these two things	<i>v</i> .	to notice or understand the difference between two people or things
25.	bachelor's dee	n.	a unit of measurement for angles, temperature, or level of proficiency or achievement; a rank or level of academic or professional attainment
26.	avoid amty in writing	n.	the quality of being open to more than one interpretation; the uncertainty of meaning
27.	et a gamma ray	<i>v</i> .	to give off or send out something such as light, heat, sound, gas, etc.
28.	asset on the company's bae sheet	n.	a condition in which everything has the same weight or force; something left after other parts have been taken away
29.	hue opinion	adj.	having or showing a modest or low estimate of one's quality or importance
30.	idfy handwriting	ν.	to recognize someone or something and say or prove who or what they are

ANSWERS: 19. confuse, 20. temperature, 21. detection, 22. geology, 23. phosphine, 24. distinguish, 25. degree, 26. ambiguity, 27. emit, 28. balance, 29. humble, 30. identify

31.	a dit memory	adj.	far away in space, time, or where you are; far apart in relevance, relationship, or kinship
32.	she is a little n_t	n.	the egg of a louse (= that is a tiny insect that lives in human hair) or some other insect; a foolish person
33.	phocal degradation	adj.	relating to or caused by the chemical effects of light, particularly those that involve the absorption or emission of light by molecules in a reaction
34.	exposure to raon	n.	the energy that comes from a nuclear reaction in the form of rays, waves, or particles and that can be hazardous to health
35.	cell and molecular biy	n.	the scientific study of life and the natural processes of living things
36.	dit ancestors	adj.	far away in space, time, or where you are; far apart in relevance, relationship, or kinship
37.	a hue cottage	adj.	having or showing a modest or low estimate of one's quality or importance
38.	a detnt of crop yields	n.	a factor, circumstance, or condition that contributes to the shaping, influencing, or determining of a particular outcome or result
39.	a convivial atmre	n.	the mass of air that surrounds the Earth; the pervading tone or mood of a place, situation, or creative work
40.	dee my position	<i>v</i> .	to state or explain precisely the nature, scope, or meaning of something

ANSWERS: 31. distant, 32. nit, 33. photochemical, 34. radiation, 35. biology, 36. distant, 37. humble, 38. determinant, 39. atmosphere, 40. define

41.	the state of being wed	adj.	extraordinary, unexpected, or difficult to explain
42.	spht effect	n.	a beam of light used to illuminate a particular area or person
43.	tert to any location in the world	v.	to transport or transmit instantly from one location to another, typically using advanced technology or imagined supernatural powers
44.	try problem	adj.	requiring care and skill because challenging to do or deal with
45.	atmospheric mee	n.	a chemical compound with the chemical formula CH4 with no smell or color, often used as a fuel
46.	tete behavior	adj.	mild or moderate in temperature or climate; exhibiting self-restraint, particularly about the consumption of food, drink, or other indulgences; showing moderation or restraint in behavior or attitude
47.	tert objects through space	v.	to transport or transmit instantly from one location to another, typically using advanced technology or imagined supernatural powers
48.	n_t in the dog's fur	n.	the egg of a louse (= that is a tiny insect that lives in human hair) or some other insect; a foolish person
49.	m_r a proper relationship	<i>v</i> .	to damage or spoil the appearance or surface of something
50.	prery investigation	adj.	serving as a preparation for something more important or extensive; introductory; taking place before the main event or decision

ANSWERS: 41. weird, 42. spotlight, 43. teleport, 44. tricky, 45. methane, 46. temperate, 47. teleport, 48. nit, 49. mar, 50. preliminary

51.	prery agreement	adj.	serving as a preparation for something more important or extensive; introductory; taking place before the main event or decision
52.	plt like the Earth	n.	any of the nine large celestial bodies that circle in the solar system; any celestial body that revolves around a star
53.	extial intelligence	adj.	relating to or existing outside of the Earth's atmosphere or planetary boundaries; pertaining to beings or phenomena that originate from beyond the Earth
54.	the great diry of the century	n.	the act or process of finding information, a place, or an object, or learning about something that was previously not known
55.	tell a comng story	adj.	arousing strong and irresistible interest, attention, or admiration
56.	det a bad event	ν.	to find or recognize something, especially something difficult to see, hear, etc.
57.	a planetary ort	n.	the path of an object around a celestial body, especially a planet, star, or moon, under the influence of gravity.
58.	electromagnetic raon	n.	the energy that comes from a nuclear reaction in the form of rays, waves, or particles and that can be hazardous to health
59.	a try recipe to follow	adj.	requiring care and skill because challenging to do or deal with

ANSWERS: 51. preliminary, 52. planet, 53. extraterrestrial, 54. discovery, 55. compelling, 56. detect, 57. orbit, 58. radiation, 59. tricky

60.	combined oxe	n.	a chemical compound that contains at least one oxygen atom and one other element
61.	take an unin attitude	adj.	not being sure of something; not being able to choose
62.	the common but nud opinion	adj.	characterized by subtle differences in appearance, meaning, sound, etc.
63.	culture of con	n.	a plant that is grown in warm countries and bears bolls containing seeds with soft and long hairs that are made into textile fiber and thread for sewing
64.	the inland of a cont	n.	one of the earth's large landmasses; (adjective) abstaining from your feelings, especially your desire to have sex
65.	v_t clinic	n.	(also a veterinarian) a person who has a medical degree trained to examine and take care of the health of animals; (verb) to carefully examine, investigate, or evaluate someone or something, often for the purpose of determining suitability or eligibility
66.	play a vil role	adj.	necessary for the success or continued existence of something
67.	dee centigrade	n.	a unit of measurement for angles, temperature, or level of proficiency or achievement; a rank or level of academic or professional attainment
68.	a binocular tepe	n.	a device like a tube in shape containing lenses used to magnify and observe distant objects

ANSWERS: 60. oxide, 61. uncertain, 62. nuanced, 63. cotton, 64. continent, 65. vet, 66. vital, 67. degree, 68. telescope

69.	inte a preference	v.	to show, point out, or make known something, often through a sign or a symbol; to suggest or imply something without stating it directly
70.	mon lava	adj.	in a liquid state as a result of being heated
71.	expansion of the unse	n.	everything that exists, especially all physical matter, including planets, stars, galaxies, and all other forms of matter and energy
72.	an intnt person	adj.	having the capacity for thought and reason, especially to a high degree
73.	con cloth	n.	a plant that is grown in warm countries and bears bolls containing seeds with soft and long hairs that are made into textile fiber and thread for sewing
74.	local gey	n.	a science that deals with the history of the earth as recorded in rocks
75.	look through a tepe	n.	a device like a tube in shape containing lenses used to magnify and observe distant objects
76.	teccal advancement	adj.	based on scientific and industrial progress
77.	the bae of power	n.	a condition in which everything has the same weight or force; something left after other parts have been taken away
78.	unsatisfied dee	n.	a strong feeling of wanting to have or do something
79.	red kaoo	n.	a large marsupial native to Australia with powerful hind legs for jumping and carrying young in a pouch on the mother's belly

ANSWERS: 69. indicate, 70. molten, 71. universe, 72. intelligent, 73. cotton, 74. geology, 75. telescope, 76. technological, 77. balance, 78. desire, 79. kangaroo

80.	amateur aster	n.	a physicist who studies astronomy
81.	spht moment	n.	a beam of light used to illuminate a particular area or person
82.	silver oxe	n.	a chemical compound that contains at least one oxygen atom and one other element
83.	the fle of a match	v.	to burn brightly with a sudden, intense burst of flame or light; (noun) a sudden and brief burst of bright flame or light; a sudden and intense burst of radiation from the Sun's surface
84.	extial planet	adj.	relating to or existing outside of the Earth's atmosphere or planetary boundaries; pertaining to beings or phenomena that originate from beyond the Earth
85.	sor discussion	adj.	not drunk or affected by alcohol; dignified in manner or character and committed to keeping promises
86.	rece the painting	<i>v</i> .	to make a copy of something such as a picture, piece of text, music, etc.; to produce offspring through a sexual or asexual process
87.	artificial bire	n.	the part of the Earth and its atmosphere in which living organisms exist, including plants, animals, and microorganisms
88.	v_t check-up	n.	(also a veterinarian) a person who has a medical degree trained to examine and take care of the health of animals; (verb) to carefully examine, investigate, or evaluate someone or something, often for the purpose of determining suitability or eligibility

ANSWERS: 80. astronomer, 81. spotlight, 82. oxide, 83. flare, 84. extraterrestrial, 85. sober, 86. reproduce, 87. biosphere, 88. vet

89.	skesm toward bureaucracy	n.	an attitude of doubting or questioning that claims or statements are true or valuable or that something will happen; the disbelief in any claims of ultimate knowledge
90.	clm responsibility	v.	to assert that something is true; to demand or request something as one's own; to lay legal or moral right to something; (noun) a demand or assertion of a right or something that one believes to be true
91.	an uneed visitor	adj.	not anticipated or regarded as likely to happen
92.	sth a story	<i>v</i> .	to make or be capable of making anything longer or broader without hurting or breaking
93.	get incly insecure	adv.	in a way that is very difficult to believe; exceedingly or extremely
94.	inet a graph	<i>v</i> .	to explain or assign the meaning of information, actions, etc.
95.	dl nationality	adj.	having two parts, aspects, or elements
96.	not necly a problem	adv.	in an essential manner; in such a way as could not be otherwise
97.	viI for a healthy society	adj.	necessary for the success or continued existence of something
98.	pathogenic mie	n.	a tiny living thing that can only be seen with a microscope and that may cause disease
99.	natural skesm	n.	an attitude of doubting or questioning that claims or statements are true or valuable or that something will happen; the disbelief in any claims of ultimate knowledge

ANSWERS: 89. skepticism, 90. claim, 91. unexpected, 92. stretch, 93. incredibly, 94. interpret, 95. dual, 96. necessarily, 97. vital, 98. microbe, 99. skepticism

100. com the diagnosis	<i>v</i> .	to support or establish the truth or certainty of something previously believed or suspected to be the case
101. lack of oxn	n.	the chemical element with the symbol O that is present in air and water and is necessary for people, animals, and plants to live
102. intnt assisting system	adj.	having the capacity for thought and reason, especially to a high degree
103. com a transaction	ν.	to support or establish the truth or certainty of something previously believed or suspected to be the case
104. sparkle like fiy	n.	a flying nocturnal insect common in warm regions with a tail that shines in the dark
105. coe fantasy with reality	<i>v</i> .	to mistake one thing for another; to make somebody hard to understand
106. ovme opponents	ν.	to succeed in controlling or dealing with something, such as a problem or difficulty; to defeat or overwhelm someone
107. a ce to the diagnosis	n.	an object, a piece of evidence, or some information that helps someone to find the answer to a problem, question, or mystery
108. tete grassland	adj.	mild or moderate in temperature or climate; exhibiting self-restraint, particularly about the consumption of food, drink, or other indulgences; showing moderation or restraint in behavior or attitude

ANSWERS: 100. confirm, 101. oxygen, 102. intelligent, 103. confirm, 104. firefly, 105. confuse, 106. overcome, 107. clue, 108. temperate

109. fleshly dee	n.	a strong feeling of wanting to have or do something
110. the genon of electricity	n.	all the people born and living at about the same time, regarded collectively; the production of heat or electricity
111. cognitive comty	n.	the state or quality of being complicated or intricate and difficult to understand
112. solar aster	n.	a physicist who studies astronomy
113. a ce about the crime	n.	an object, a piece of evidence, or some information that helps someone to find the answer to a problem, question, or mystery
114. cost bar	n.	a fence or other obstruction that makes it hard to move or get in; any condition that makes it difficult to make progress or to achieve an objective
115. fle up into a major crisis	ν.	to burn brightly with a sudden, intense burst of flame or light; (noun) a sudden and brief burst of bright flame or light; a sudden and intense burst of radiation from the Sun's surface
116. cont urinary diversion	n.	one of the earth's large landmasses; (adjective) abstaining from your feelings, especially your desire to have sex
117. free from amty	n.	the quality of being open to more than one interpretation; the uncertainty of meaning
118. incly cheerful character	adv.	in a way that is very difficult to believe; exceedingly or extremely
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ANSWERS: 109. desire, 110. generation, 111. complexity, 112. astronomer, 113. clue, 114. barrier, 115. flare, 116. continent, 117. ambiguity, 118. incredibly

119. optic outlook	adj.	hoping or expecting that good thing will happen or something will be successful
120. inte an error	ν.	to show, point out, or make known something, often through a sign or a symbol; to suggest or imply something without stating it directly
121. overcome hues	n.	a barrier or obstacle that must be overcome
122. hl broke loose	n.	the place thought to be where bad people go and are punished after death, often depicted as being located beneath the earth; an extraordinarily unpleasant or difficult place
123. tm down	<i>v</i> .	to be abuzz; to move in large numbers; to fall heavily
124. asmy science	n.	the scientific study of objects and matter outside the Earth's atmosphere, especially the positions, motions, and evolution of celestial bodies
125. as sor as a judge	adj.	not drunk or affected by alcohol; dignified in manner or character and committed to keeping promises
126. the glow of a fiy	n.	a flying nocturnal insect common in warm regions with a tail that shines in the dark
127. terrestrial bire	n.	the part of the Earth and its atmosphere in which living organisms exist, including plants, animals, and microorganisms

ANSWERS: 119. optimistic, 120. indicate, 121. hurdle, 122. hell, 123. teem, 124. astronomy, 125. sober, 126. firefly, 127. biosphere

128. he is optic	adj.	hoping or expecting that good thing will happen or something will be successful
129. mies sterilizer	n.	a tiny living thing that can only be seen with a microscope and that may cause disease
130. dl purpose	adj.	having two parts, aspects, or elements
131. vey a document	v.	to check that something exists or is true, or to prove that something is correct
132. reduce mee emissions	n.	a chemical compound with the chemical formula CH4 with no smell or color, often used as a fuel
133. the prnd depths of the sea	adj.	extremely great; sensed or experienced very strongly; displaying a high level of knowledge or comprehension
134. extreme temres	n.	the degree of hotness or coldness of a thing or place
135. dee a word	<i>v</i> .	to state or explain precisely the nature, scope, or meaning of something
136. idfy gene sequences	v.	to recognize someone or something and say or prove who or what they are
137. environmental detnt	n.	a factor, circumstance, or condition that contributes to the shaping, influencing, or determining of a particular outcome or result
138. false clm	ν.	to assert that something is true; to demand or request something as one's own; to lay legal or moral right to something; (noun) a demand or assertion of a right or something that one believes to be true

ANSWERS: 128. optimistic, 129. microbe, 130. dual, 131. verify, 132. methane, 133. profound, 134. temperature, 135. define, 136. identify, 137. determinant, 138. claim

139. m_r the reputation	<i>v</i> .	to damage or spoil the appearance or surface of something
140. tm with activity	<i>v</i> .	to be abuzz; to move in large numbers; to fall heavily
141. a wed dress	adj.	extraordinary, unexpected, or difficult to explain
142. genon gap	n.	all the people born and living at about the same time, regarded collectively; the production of heat or electricity
143. evolutionary biy	n.	the scientific study of life and the natura processes of living things
144. det smuggling across borders	<i>v</i> .	to find or recognize something, especially something difficult to see, hear, etc.
145. decision-making prs	n.	a series of actions or operations performed to achieve a particular outcome or goal; a systematic procedure or approach used to accomplish a specific task or objective; a method of treating milk to make it suitable for consumption or use in other dairy products
146. giant kaoo	n.	a large marsupial native to Australia with powerful hind legs for jumping and carrying young in a pouch on the mother's belly
147. 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

ANSWERS: 139. mar, 140. teem, 141. weird, 142. generation, 143. biology, 144. detect, 145. process, 146. kangaroo, 147. discovery

148. rece by myself	v.	to make a copy of something such as a picture, piece of text, music, etc.; to produce offspring through a sexual or asexual process
149. sth along the coast	<i>v</i> .	to make or be capable of making anything longer or broader without hurting or breaking
150. population dey	n.	the quality of compactness of a substance
151. numerous unin factors	adj.	not being sure of something; not being able to choose
152. nud view	adj.	characterized by subtle differences in appearance, meaning, sound, etc.
153. et air pollution	<i>v</i> .	to give off or send out something such as light, heat, sound, gas, etc.
154. the ort of the moon	n.	the path of an object around a celestial body, especially a planet, star, or moon, under the influence of gravity.
155. dee competition	n.	a formal discussion or argument of opposing viewpoints, often to persuade others to adopt a specific position; a public discussion, often on an issue of current interest, in which participants offer opinions and differing perspectives
156. exe the world	ν.	to travel to or penetrate an area or a country to learn about it; to thoroughly examine a subject or a possibility to learn more about it
157. a branch of asmy	n.	the scientific study of objects and matter outside the Earth's atmosphere, especially the positions, motions, and evolution of celestial bodies

ANSWERS: 148. reproduce, 149. stretch, 150. density, 151. uncertain, 152. nuanced, 153. emit, 154. orbit, 155. debate, 156. explore, 157. astronomy

158. aln fungi	n.	a person who comes from a different country, race, or group; a form of life assumed to exist outside the Earth or its atmosphere
159. necly true	adv.	in an essential manner; in such a way as could not be otherwise
160. amg advances	adj.	extremely surprising, especially in a way that you like or admire
161. theory of the unse	n.	everything that exists, especially all physical matter, including planets, stars, galaxies, and all other forms of matter and energy
162. carbon dioxide in the atmre	n.	the mass of air that surrounds the Earth; the pervading tone or mood of a place, situation, or creative work
163. resident alns	n.	a person who comes from a different country, race, or group; a form of life assumed to exist outside the Earth or its atmosphere
164. the most amg feeling	adj.	extremely surprising, especially in a way that you like or admire
165. importance of early deon	n.	the act of discovering or identifying the presence of something
166. higher pixel dey	n.	the quality of compactness of a substance
167. the hydrogen binds the oxn	n.	the chemical element with the symbol O that is present in air and water and is necessary for people, animals, and plants to live

ANSWERS: 158. alien, 159. necessarily, 160. amazing, 161. universe, 162. atmosphere, 163. alien, 164. amazing, 165. detection, 166. density, 167. oxygen

168. save the plt	n.	any of the nine large celestial bodies that circle in the solar system; any celestial body that revolves around a star
169. phocal reaction	adj.	relating to or caused by the chemical effects of light, particularly those that involve the absorption or emission of light by molecules in a reaction
170. dote possession	<i>v</i> .	to have or control a lot of power and influence over somebody or something
171. organic phne	n.	a colorless, flammable gas that is made up of one phosphorus atom and three hydrogen atoms and has a fishy or garlic-like odor
172. some uneed events	adj.	not anticipated or regarded as likely to happen

ANSWERS: 168. planet, 169. photochemical, 170. dominate, 171. phosphine, 172. unexpected

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

1.	The battlefield became on earth.
n.	the place thought to be where bad people go and are punished after death, often depicted as being located beneath the earth; an extraordinarily unpleasant or difficult place
2.	The Sun and caused a sudden brightening in the sky.
v.	to burn brightly with a sudden, intense burst of flame or light; (noun) a sudden and brief burst of bright flame or light; a sudden and intense burst of radiation from the Sun's surface
3.	This question has fascinated solar for decades.
n.	a physicist who studies astronomy
4.	The metal was poured into the mold.
adj.	in a liquid state as a result of being heated
5.	The younger has different values and beliefs than the older one.
n.	all the people born and living at about the same time, regarded collectively; the production of heat or electricity
6.	species have drastically altered the ecosystem in this area.
n.	a person who comes from a different country, race, or group; a form of life assumed to exist outside the Earth or its atmosphere
7.	smog is a major problem in many urban areas.
adj.	relating to or caused by the chemical effects of light, particularly those that involve the absorption or emission of light by molecules in a reaction
	SWERS: 1. hell, 2. flared, 3. astronomers, 4. molten, 5. generation, 6. Alien, 7. tochemical

ANSWERS: 8. clue, 9. overcome, 10. continent, 11. unexpected, 12. Technological, 13. vet, 14. stretch, 15. profound

16. l	He led a life.
adj.	not drunk or affected by alcohol; dignified in manner or character and committed to keeping promises
17. <sup>-</sup>	The sommelier can distinguish variance in the flavor of the wine.
adj.	characterized by subtle differences in appearance, meaning, sound, etc.
18. <sup>-</sup>	The city with traffic on holiday.
<i>v</i> .	to be abuzz; to move in large numbers; to fall heavily
19. (	Careful brushing can remove
n.	the egg of a louse (= that is a tiny insect that lives in human hair) or some other insect; a foolish person
20.	Do you know the of the population in Hong Kong?
n.	the quality of compactness of a substance
21. <sup>-</sup>	The synthesis of was first achieved in the 17th century.
n.	a colorless, flammable gas that is made up of one phosphorus atom and three hydrogen atoms and has a fishy or garlic-like odor
22.	Please write to your reservation.
v.	to support or establish the truth or certainty of something previously believed or suspected to be the case
23. (	Cities around the world set records for highest this summer.
n.	the degree of hotness or coldness of a thing or place
	The female carries and nurses her young, or joey, in a pouch on her belly.
n.	a large marsupial native to Australia with powerful hind legs for jumping and carrying young in a pouch on the mother's belly
	SWERS: 16. sober, 17. nuanced, 18. teems, 19. nit, 20. density, 21. phosphine, confirm, 23. temperatures, 24. kangaroo

ANSWERS: 25. extraterrestrial, 26. degree, 27. astronomy, 28. hurdles, 29. biosignatures, 30. vital, 31. universe

galaxies, and all other forms of matter and energy

everything that exists, especially all physical matter, including planets, stars,

32. Low sexual typically correlates with low testosterone levels.
n. a strong feeling of wanting to have or do something
33. The golfer recorded an distance.
adj. extremely surprising, especially in a way that you like or admire
34. I will introduce you to how to the leading causes of the malfunction.
v. to recognize someone or something and say or prove who or what they are
35. The police placed a across the street to halt traffic.
n. a fence or other obstruction that makes it hard to move or get in; any condition that makes it difficult to make progress or to achieve an objective
36. Her remarks the debate.
v. to mistake one thing for another; to make somebody hard to understand
37. He was a visiting professor at the University of Tokyo.
n. a science that deals with the history of the earth as recorded in rocks
38. By dividing and creating copies of themselves, bacteria
v. to make a copy of something such as a picture, piece of text, music, etc.; to produce offspring through a sexual or asexual process
39. The singer was in the as she performed her hit song.
n. a beam of light used to illuminate a particular area or person
40. This laptop has a processor, making it fast and efficient.
adj. having two parts, aspects, or elements
ANSWERS: 32. desire, 33. amazing, 34. identify, 35. barrier, 36. confused, 37. geology, 38. reproduce, 39. spotlight, 40. dual-core

ANSWERS: 41. verify, 42. uncertain, 43. marred, 44. Intelligent, 45. cotton, 46. determinant, 47. distant, 48. telescope

distant objects

a device like a tube in shape containing lenses used to magnify and observe

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

56. Mercury is the closest \_\_\_\_\_ to the sun.

ANSWERS: 49. incredibly, 50. detected, 51. teleport, 52. radiation, 53. explore, 54. necessarily, 55. ambiguity, 56. planet

ANSWERS: 57. methane, 58. oxide, 59. detection, 60. discovery, 61. oxygen, 62.

complexity, 63. tricky, 64. biology, 65. optimistic

74.	The nobler, the more
adj.	having or showing a modest or low estimate of one's quality or importance
	This party expresses about the efficacy of the health insurance system.
n.	an attitude of doubting or questioning that claims or statements are true or valuable or that something will happen; the disbelief in any claims of ultimate knowledge
76.	This study four different ways to run a business.
	to notice or understand the difference between two people or things
77.	Different people might this news differently.
<i>v</i> .	to explain or assign the meaning of information, actions, etc.
78.	His presentation deeply moved everyone.
adj.	arousing strong and irresistible interest, attention, or admiration
79.	The balance of the is crucial for the survival of species.
n.	the part of the Earth and its atmosphere in which living organisms exist, including plants, animals, and microorganisms
80.	The over climate change continues to be a hot topic in politics.
n.	a formal discussion or argument of opposing viewpoints, often to persuade others to adopt a specific position; a public discussion, often on an issue of current interest, in which participants offer opinions and differing perspectives
	The data that the company's profits have steadily increased over the past quarter.
<i>v</i> .	to show, point out, or make known something, often through a sign or a symbol; to suggest or imply something without stating it directly
	SWERS: 74. humble, 75. skepticism, 76. distinguished, 77. interpret, 78. npelling, 79. biosphere, 80. debate, 81. indicates

82.	Before starting the project, we need to go through someand planning.	research
ad	j. serving as a preparation for something more important or extensive; introductory; taking place before the main event or decision	
83.	During the unloading, the container box a clicking sound.	
<i>v</i> .	to give off or send out something such as light, heat, sound, gas, etc	
84.	Try to keep a between work and off.	
n.	a condition in which everything has the same weight or force; somethafter other parts have been taken away	ning left
85.	The perspective of his right brain his consciousness.	
<i>v</i> .	to have or control a lot of power and influence over somebody or sor	nething
86.	The spaceship began to burn up as it approached the Earth's	•
n.	the mass of air that surrounds the Earth; the pervading tone or mood place, situation, or creative work	of a
AN	ISWERS: 82. preliminary, 83. emits, 84. balance, 85. dominates, 86. atr	nosphere