

Englist.me



Vocabulary Builder Reference from...

Heidi Hammel and Nadia Drake: The marvels and mysteries revealed by the James Webb Space Telescope | TED Talk

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

Advanced Words Only

IMPORTANT

This material is a commentary and does not contain any copyrighted material of the reference source. We strongly recommend accessing/buying the reference source at the same time.

Session 1: Word List

pristine

adj. new and completely free from dirt or contamination

synonym : chaste, pure, immaculate

(1) **pristine** beach, (2) maintain the **pristine** condition

It is terrific to camp in **pristine** nature.

honeycomb

n. a structure of hexagonal cells made of wax by bees as a place to store honey and to rear their young

synonym : hexagonal, beehive, lattice

(1) **honeycomb** lattice, (2) **honeycomb** pattern

The beehive was made of an intricate **honeycomb** pattern.

unfold

v. to open up or spread out something that is folded or rolled up; to reveal or disclose something that was previously hidden or unknown

synonym : open, spread out, expose

(1) **unfold** the story, (2) **unfold** the stroller

The mystery **unfolded** as the detectives gathered more clues.

contraption

n. a machine or device that is made up of a combination of interconnected parts and often appears complicated or

unusual

synonym : device, gadget, machinery

(1) farming **contraption**, (2) complicated **contraption**

The inventor created a **contraption** that could turn salt water into drinking water.

unbolt

n. to remove a bolt or lock from a door or window

synonym : unlock, unfasten, open

(1) **unbolt** direction of evolution, (2) **unbolt** the lock

She had to **unbolt** the door to escape the room.

enclose

v. to surround, as with a fence, wall, or barrier; to put within boundaries; to include

synonym : surround, encase, contain

(1) **enclose** a check with a letter, (2) **enclose** area

The walls were **enclosed** to create a private outdoor space.

fingertip

n. the end or tip of a finger

(1) apply **fingertip** pressure, (2) burn my **fingertip**

The archaeologist ran his **fingertips** along the pattern of the tombstones.

primordial

adj. existing from the beginning of time or the start of a particular process; relating to the earliest stage of the universe

synonym : ancient, original, primary

(1) **primordial** forms of life, (2) **primordial** gas

The discovery of the **primordial** soup was a crucial step in understanding the origins of life on Earth.

murky

adj. dark and gloomy or difficult to see through

synonym : dim, fuzzy, foggy

(1) **murky** waters, (2) a **murky** dungeon

Prospects for the suspect's conviction are **murky** due to a lack of helpful evidence.

phenomenal

adj. extremely good or impressive; outstanding

synonym : extraordinary, remarkable, impressive

(1) **phenomenal** success, (2) **phenomenal** growth

The athlete's **phenomenal** performance broke all previous records.

beryllium

n. a light, strong, brittle metallic element with the symbol Be and atomic number 4, used in nuclear reactors, aerospace, and other high-tech applications

synonym : Be, glucinium

(1) **beryllium** ore, (2) **beryllium** alloy

The rocket's casing was made of **beryllium** for its light weight and strength.

miner

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

synonym : digger, excavator, miner

(1) **miner** strike, (2) **miner** industry

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

spectrograph

n. an instrument that separates light into its component wavelengths and records the distribution of intensities as a graph, used for chemical analysis or to determine the properties of stars and galaxies

synonym : spectrometer, spectroscope, instrument

(1) **spectrograph** analysis, (2) acoustic **spectrograph**

The **spectrograph** data showed that the element was composed of multiple spectral lines.

cosmos

n. another name for the universe, mainly used when it is thought of as an ordered system

synonym : universe, macrocosm

(1) exploration of **cosmos**, (2) origin of the **cosmos**

Supercomputers enable scientists to create computational

models of the **cosmos**.

evocative

adj. tending to evoke or bring something to mind

synonym: suggestive, stimulating, provocative

(1) **evocative** memories, (2) **evocative** language

The music was **evocative** of a bygone era.

poetic

adj. of or relating to poetry (= a piece of writing that emphasizes the expression of feelings and ideas); using language in an imaginative and expressive way

synonym: literary, verse-like, rhythmic

(1) **poetic** genius, (2) **poetic** justice

The sunset was so beautiful it looked like a **poetic** scene from a movie.

poke

v. to push or prod with a sharp object or the finger

synonym: prod, jab, push

(1) **poke** around the desk, (2) **poke** a fire

They **poked** fun at each other's jokes, laughing and teasing.

knob

n. a round handle, especially one used for opening or closing a door, drawer, or cabinet

synonym: handle, lever

(1) handy **knob**, (2) **knob** closure

The **knob** on the drawer was loose and needed to be tightened.

nebula

n. a cloud of gas and dust in space, visible in the night sky, typically as a diffuse light source

synonym: cloud, mist, stardust

(1) a spiral **nebula**, (2) emission **nebula**

The galactic **nebula** was a beautiful sight through the telescope, with its vibrant colors and swirling clouds.

swirl

v. to move in a circular or spiral pattern

synonym: spin, whirl, turn

(1) **swirl** the wine, (2) **swirl** up dirt and dust
The chef expertly **swirled** the sauce onto the plate.

quintet

n. a group or set of five people or things or a musical composition for five performers

synonym: five-piece, ensemble

(1) **quintet** group, (2) piano **quintet**

The **quintet** of musicians played a beautiful symphony together.

interloper

n. a person who intrudes into a place or sphere of activity where they are not wanted or are considered not to belong

synonym: intruder, trespasser, intruder

(1) an annoying **interloper**, (2) interstellar **interloper**

The **interloper** at the party was not on the guest list and was asked to leave.

foreground

n. the part of a view, picture, etc., that is nearest to the viewer

(1) **foreground** segmentation, (2) **foreground** galaxy

A happy group of friends occupies the **foreground** of the picture.

photobombing

n. the act of unexpectedly appearing in someone else's photo as a joke or ruining the shot

(1) a squirrel **photobombing**, (2) **photobombing** accident

A **photobombing** seagull ruined the group photo.

fingerprint

n. a unique pattern of ridges and valleys on the surface of a finger that can be used to identify a person

synonym: print, mark, impression

(1) **fingerprint** at a crime scene, (2) **fingerprint** identification

The police used a **fingerprint** scanner to identify the suspect.

tomography

n. a diagnostic imaging technique used to produce detailed images of structures inside the body, typically by using X-rays, CT scans, or ultrasound

synonym : imaging, scanning, x-ray

(1) acoustic **tomography**, (2) **tomography** image

The **tomography** scan showed a clear image of the patient's internal organs.

astrophysics

n. the branch of physics concerned with the study of the properties and behavior of celestial objects and the physical processes that govern the behavior and evolution of the universe

(1) **astrophysics** research, (2) neutrino **astrophysics**

He was studying **astrophysics** in an attempt to understand the origins of the universe.

astronomer

n. a physicist who studies astronomy

synonym : stargazer, cosmologist, astrophysicist

(1) amateur **astronomer**, (2) solar **astronomer**

This question has fascinated solar **astronomers** for decades.

helium

n. a colorless, odorless, tasteless, non-toxic, inert, monatomic gas, the first in the noble gas series in the periodic table

synonym : He, light gas, noble gas

(1) **helium** atom, (2) **helium** gas

The **helium-filled** balloons floated into the sky.

Jovian

adj. relating to Jupiter or its characteristics

synonym : Jupiter, giant planet

(1) **Jovian** satellites, (2) **Jovian** planet

The **Jovian** moon Europa is believed to have an ocean beneath its icy surface.

scatter

v. to cause to separate and go in different directions

synonym : disperse, spread, bestrew

(1) **scatter** seeds, (2) **scatter** around the internet

The hunter's approach **scattered** the geese.

doe *n.* a mature female of mammals of which the male is called a buck, such as a deer or a rabbit
synonym: rabbit, bunny, hare
(1) **doe** rabbit, (2) buck and **doe**
Hunters use a whistle that makes the **doe** sound to lure stags.

rover *n.* a vehicle designed to travel over rough terrain, especially on the surface of a planet or moon
synonym: vehicle, robot, explorer
(1) **rover** mission, (2) lunar **rover**
The **rover** on Mars is gathering data on the planet's surface and sending it back to Earth.

biosignature *n.* 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.

curveball *n.* a pitch in baseball that breaks unexpectedly; a surprising or unexpected twist or turn in a situation
synonym: surprise, twist, deviation
(1) life's little **curveball**, (2) **curveball** situation
The pitcher threw a sharp **curveball** that the batter was not expecting.

inward *adj.* directed or facing towards the inside; inside or inward-looking
synonym: internal, introspective, interior
(1) **inward** peace, (2) **inward** cargo
The **inward** motion of the tide was gradually slowing down.

Martian

adj. of or relating to Mars or its imaginary inhabitants

(1) **Martian** geography, (2) **Martian** surface

There is very little water in the **Martian** atmosphere.

confine

v. to restrict the movement of someone or something

synonym: restrict, limit, contain

(1) **confine** themselves solely, (2) **confine** the scope of use

The animal was **confined** in a small cage.

mind-boggling

adj. extremely surprising or overwhelming and, therefore, difficult to understand or imagine

synonym: overwhelming, amazing, astonishing

(1) a **mind-boggling** puzzle, (2) a **mind-boggling** display

Educating hundreds of thousands of recruits is a **mind-boggling** task.

astrobiology

n. the study of the origin, evolution, distribution, and future of life in the universe, including the search for extraterrestrial life

(1) **astrobiology** finding, (2) valuable data for **astrobiology**

The discovery of liquid water on Mars has opened up new avenues for **astrobiology** research.

lingo

n. the special vocabulary or terminology used by a particular group or profession

synonym: language, jargon, slang

(1) computer **lingo**, (2) medical **lingo**

The language used in the article was technical **lingo**, making it difficult for non-experts to understand.

flyby

n. a close approach to a celestial body, especially a planet, by a spacecraft without landing or entering orbit

synonym: passby, flyover, whizz by

(1) **flyby** mission, (2) a five-plane **flyby**

The spacecraft will conduct a **flyby** of the moon to gather data.

gravitational

adj. relating to or caused by gravity (= the force that attracts objects towards one another)

synonym: weighty, heavy, earthbound

(1) **gravitational** energy, (2) **gravitational** waves

The **gravitational** force of the black hole was so strong that nothing, not even light, could escape.

deflect

v. to cause something, especially a criticism or attack, to be directed away from someone

synonym: deter, redirect, sidetrack

(1) **deflect** a blow, (2) **deflect** his criticism

The soccer player was able to **deflect** the ball away from the goal.

volcano

n. a mountain or hill, typically conical, having a crater or vent through which lava, rock fragments, hot vapor, and gas are or have been erupted from the earth's crust.

synonym: mount, peak, crater

(1) **volcano** alert level, (2) active **volcano**

The island was formed by a **volcano** millions of years ago.

resonant

adj. tending to reinforce or prolong sound by sympathetic vibration; having a quality that elicits a similar response or feeling

synonym: echoing, reverberating, resonating

(1) **resonant** with the sound, (2) **resonant** cavity

The **resonant** frequency of the guitar string was measured with a tuner.

creditor

n. a person, company, etc. to whom a debtor owes money

(1) the **creditor's** claims, (2) bankrupt **creditor**

I asked the lawyer to initiate **creditor** negotiations for voluntary liquidation.

retrograde

adj. moving or occurring in a direction opposite to the usual or normal one or going back to an earlier or worse condition

synonym : backward, regressive, declining

(1) **retrograde** motion, (2) **retrograde** arguments

The **retrograde** motion of the planet was unusual and required further investigation.

cryovolcano

n. a type of volcano that erupts volatile substances such as gases or cryo-lavas (cold, volatile-rich mixtures) instead of molten rock (magma)

(1) **cryovolcano** eruption, (2) **cryovolcano** activity

Scientists believe a **cryovolcano** may have erupted on one of Saturn's moons.

erupt

v. (of a volcano) to become active and eject rocks, smoke, etc.; to start abruptly and violently

synonym : eject, emit, burst

(1) **erupt** in anger, (2) **erupt** into tears

Battles between whites and blacks **erupted** immediately.

abode

n. a place where one lives; a dwelling; a house, or other shelters

synonym : dwelling, residence, home

(1) a temporary **abode**, (2) humble **abode**

The small cabin in the woods was his **abode** for many years.

goofy

adj. silly or foolish

synonym : silly, crazy, dopey

(1) wore a **goofy** hat, (2) with a **goofy** expression

He made a **goofy** face as he recalled this morning's events.

carsick

adj. feeling nauseous or dizzy as a result of being in a moving vehicle

synonym : nauseous, dizzy, queasy

(1) get **carsick** easily, (2) feel **carsick**

The car's motion made her **carsick**, and she had to pull over.

kindle

v. to start a fire; to light

synonym :

ignite, light, start

(1) **kindle** strife, (2) **kindle** a passion

He **kindled** a fire in the fireplace to warm the room.

nag

v. to annoy or irritate someone persistently with repeated complaints, requests, or criticism; (noun) an old or over-worked horse

synonym: hassle, bother, badger

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

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

unanswered

adj. not responded to or explained

synonym: ignored, unrequited, undecided

(1) **unanswered** love, (2) **unanswered** e-mail

Pardon me for leaving some of your questions **unanswered**.

disparate

adj. very different or distinct from something else and is not connected or comparable in any way

synonym: different, distinct, separate

(1) **disparate** impact, (2) physically **disparate** location

The organization worked to bring together **disparate** groups in the community.

inhabit

v. to live in a specific location; to reside

synonym: settle, occupy, populate

(1) **inhabit** a cave, (2) **inhabit** the stomach

I have no idea what sort of folks **inhabit** the neighborhood.

happenstance

n. an occurrence that happens by chance; a fortuitous event, or a coincidence

synonym: coincidence, chance, accident

(1) **happenstance** event, (2) meet by **happenstance**

It was a mere **happenstance** that they both ended up at the same restaurant.

Session 2: Spelling

1. ast_____ics research
n. the branch of physics concerned with the study of the properties and behavior of celestial objects and the physical processes that govern the behavior and evolution of the universe
2. hap_____nce event
n. an occurrence that happens by chance; a fortuitous event, or a coincidence
3. un____d the stroller
v. to open up or spread out something that is folded or rolled up; to reveal or disclose something that was previously hidden or unknown
4. acoustic tom_____hy
n. a diagnostic imaging technique used to produce detailed images of structures inside the body, typically by using X-rays, CT scans, or ultrasound
5. de_____t a blow
v. to cause something, especially a criticism or attack, to be directed away from someone
6. handy k__b
n. a round handle, especially one used for opening or closing a door, drawer, or cabinet
7. ev_____ve memories
adj. tending to evoke or bring something to mind
8. vo_____o alert level
n. a mountain or hill, typically conical, having a crater or vent through which lava, rock fragments, hot vapor, and gas are or have been erupted from the earth's crust.

ANSWERS: 1. astrophysics, 2. happenstance, 3. unfold, 4. tomography, 5. deflect, 6. knob, 7. evocative, 8. volcano

9. cu_____ll situation *n.* a pitch in baseball that breaks unexpectedly; a surprising or unexpected twist or turn in a situation
10. Jo____n satellites *adj.* relating to Jupiter or its characteristics
11. Ma_____n surface *adj.* of or relating to Mars or its imaginary inhabitants
12. lunar ro____r *n.* a vehicle designed to travel over rough terrain, especially on the surface of a planet or moon
13. p__e a fire *v.* to push or prod with a sharp object or the finger
14. mu__y waters *adj.* dark and gloomy or difficult to see through
15. n_g about the minor thing *v.* to annoy or irritate someone persistently with repeated complaints, requests, or criticism; (noun) an old or over-worked horse
16. co_____e themselves solely *v.* to restrict the movement of someone or something
17. emission ne____a *n.* a cloud of gas and dust in space, visible in the night sky, typically as a diffuse light source
18. ki____e strife *v.* to start a fire; to light
19. sc_____r seeds *v.* to cause to separate and go in different directions
20. neutrino ast_____ics *n.* the branch of physics concerned with the study of the properties and behavior of celestial objects and the physical processes that govern the behavior and evolution of the universe

ANSWERS: 9. curveball, 10. Jovian, 11. Martian, 12. rover, 13. poke, 14. murky, 15. nag, 16. confine, 17. nebula, 18. kindle, 19. scatter, 20. astrophysics

21. maintain the pr____ne condition *adj.* new and completely free from dirt or contamination
22. sw__l up dirt and dust *v.* to move in a circular or spiral pattern
23. ki___e a passion *v.* to start a fire; to light
24. be_____um alloy *n.* a light, strong, brittle metallic element with the symbol Be and atomic number 4, used in nuclear reactors, aerospace, and other high-tech applications
25. en_____e area *v.* to surround, as with a fence, wall, or barrier; to put within boundaries; to include
26. a min_____ing display *adj.* extremely surprising or overwhelming and, therefore, difficult to understand or imagine
27. ret_____de arguments *adj.* moving or occurring in a direction opposite to the usual or normal one or going back to an earlier or worse condition
28. in___d peace *adj.* directed or facing towards the inside; inside or inward-looking
29. un___t direction of evolution *n.* to remove a bolt or lock from a door or window
30. er__t into tears *v.* (of a volcano) to become active and eject rocks, smoke, etc.; to start abruptly and violently
31. valuable data for ast_____ogy *n.* the study of the origin, evolution, distribution, and future of life in the universe, including the search for extraterrestrial life

ANSWERS: 21. pristine, 22. swirl, 23. kindle, 24. beryllium, 25. enclose, 26. mind-boggling, 27. retrograde, 28. inward, 29. unbolt, 30. erupt, 31. astrobiology

32. Ma_____n geography *adj.* of or relating to Mars or its imaginary inhabitants
33. cry_____no eruption *n.* a type of volcano that erupts volatile substances such as gases or cryo-lavas (cold, volatile-rich mixtures) instead of molten rock (magma)
34. an annoying int_____er *n.* a person who intrudes into a place or sphere of activity where they are not wanted or are considered not to belong
35. a temporary ab__e *n.* a place where one lives; a dwelling; a house, or other shelters
36. ro__r mission *n.* a vehicle designed to travel over rough terrain, especially on the surface of a planet or moon
37. qu_____t group *n.* a group or set of five people or things or a musical composition for five performers
38. bankrupt cr_____or *n.* a person, company, etc. to whom a debtor owes money
39. spe_____aph analysis *n.* an instrument that separates light into its component wavelengths and records the distribution of intensities as a graph, used for chemical analysis or to determine the properties of stars and galaxies
40. active vo_____o *n.* a mountain or hill, typically conical, having a crater or vent through which lava, rock fragments, hot vapor, and gas are or have been erupted from the earth's crust.

ANSWERS: 32. Martian, 33. cryovolcano, 34. interloper, 35. abode, 36. rover, 37. quintet, 38. creditor, 39. spectrograph, 40. volcano

41. for_____nd galaxy *n.* the part of a view, picture, etc., that is nearest to the viewer
42. get ca_____k easily *adj.* feeling nauseous or dizzy as a result of being in a moving vehicle
43. fin_____nt at a crime scene *n.* a unique pattern of ridges and valleys on the surface of a finger that can be used to identify a person
44. ast_____ogy finding *n.* the study of the origin, evolution, distribution, and future of life in the universe, including the search for extraterrestrial life
45. po____c genius *adj.* of or relating to poetry (= a piece of writing that emphasizes the expression of feelings and ideas); using language in an imaginative and expressive way
46. origin of the co____s *n.* another name for the universe, mainly used when it is thought of as an ordered system
47. phe_____al growth *adj.* extremely good or impressive; outstanding
48. co_____e the scope of use *v.* to restrict the movement of someone or something
49. po____c justice *adj.* of or relating to poetry (= a piece of writing that emphasizes the expression of feelings and ideas); using language in an imaginative and expressive way
50. a min_____ing puzzle *adj.* extremely surprising or overwhelming and, therefore, difficult to understand or imagine

ANSWERS: 41. foreground, 42. carsick, 43. fingerprint, 44. astrobiology, 45. poetic, 46. cosmos, 47. phenomenal, 48. confine, 49. poetic, 50. mind-boggling

51. solar ast_____er *n.* a physicist who studies astronomy
52. un___t the lock *n.* to remove a bolt or lock from a door or window
53. medical li__o *n.* the special vocabulary or terminology used by a particular group or profession
54. d_e rabbit *n.* a mature female of mammals of which the male is called a buck, such as a deer or a rabbit
55. un___d the story *v.* to open up or spread out something that is folded or rolled up; to reveal or disclose something that was previously hidden or unknown
56. computer li__o *n.* the special vocabulary or terminology used by a particular group or profession
57. be_____um ore *n.* a light, strong, brittle metallic element with the symbol Be and atomic number 4, used in nuclear reactors, aerospace, and other high-tech applications
58. in___d cargo *adj.* directed or facing towards the inside; inside or inward-looking
59. exploration of co___s *n.* another name for the universe, mainly used when it is thought of as an ordered system
60. n_g political leaders *v.* to annoy or irritate someone persistently with repeated complaints, requests, or criticism; (noun) an old or over-worked horse
61. in_____t the stomach *v.* to live in a specific location; to reside

ANSWERS: 51. astronomer, 52. unbolt, 53. lingo, 54. doe, 55. unfold, 56. lingo, 57. beryllium, 58. inward, 59. cosmos, 60. nag, 61. inhabit

62. re_____nt cavity *adj.* tending to reinforce or prolong sound by sympathetic vibration; having a quality that elicits a similar response or feeling
63. gra_____nal waves *adj.* relating to or caused by gravity (= the force that attracts objects towards one another)
64. en_____e a check with a letter *v.* to surround, as with a fence, wall, or barrier; to put within boundaries; to include
65. ware a go__y hat *adj.* silly or foolish
66. fin_____nt identification *n.* a unique pattern of ridges and valleys on the surface of a finger that can be used to identify a person
67. he___m atom *n.* a colorless, odorless, tasteless, non-toxic, inert, monatomic gas, the first in the noble gas series in the periodic table
68. sc_____r around the internet *v.* to cause to separate and go in different directions
69. bio_____ures discovery *n.* distinctive chemical or physical features that indicate the presence of past or current life
70. pho_____ing accident *n.* the act of unexpectedly appearing in someone else's photo as a joke or ruining the shot
71. farming con_____on *n.* a machine or device that is made up of a combination of interconnected parts and often appears complicated or unusual

ANSWERS: 62. resonant, 63. gravitational, 64. enclose, 65. goofy, 66. fingerprint, 67. helium, 68. scatter, 69. biosignature, 70. photobombing, 71. contraption

72. ho_____mb pattern *n.* a structure of hexagonal cells made of wax by bees as a place to store honey and to rear their young
73. burn my fi_____ip *n.* the end or tip of a finger
74. fo_____nd segmentation *n.* the part of a view, picture, etc., that is nearest to the viewer
75. mi__r industry *n.* a person who works in a mine (= excavation in the Earth from which ores and minerals are extracted), especially one who extracts coal, minerals, or precious metals from the Earth
76. cry_____no activity *n.* a type of volcano that erupts volatile substances such as gases or cryo-lavas (cold, volatile-rich mixtures) instead of molten rock (magma)
77. k__b closure *n.* a round handle, especially one used for opening or closing a door, drawer, or cabinet
78. the cr_____or's claims *n.* a person, company, etc. to whom a debtor owes money
79. piano qu_____t *n.* a group or set of five people or things or a musical composition for five performers
80. a mu__y dungeon *adj.* dark and gloomy or difficult to see through
81. pri_____al forms of life *adj.* existing from the beginning of time or the start of a particular process; relating to the earliest stage of the universe
82. pr_____ne beach *adj.* new and completely free from dirt or contamination

ANSWERS: 72. honeycomb, 73. fingertip, 74. foreground, 75. miner, 76. cryovolcano, 77. knob, 78. creditor, 79. quintet, 80. murky, 81. primordial, 82. pristine

83. una_____ed e-mail *adj.* not responded to or explained
84. acoustic spe_____aph *n.* an instrument that separates light into its component wavelengths and records the distribution of intensities as a graph, used for chemical analysis or to determine the properties of stars and galaxies
85. gra_____nal energy *adj.* relating to or caused by gravity (= the force that attracts objects towards one another)
86. mi__r strike *n.* a person who works in a mine (= excavation in the Earth from which ores and minerals are extracted), especially one who extracts coal, minerals, or precious metals from the Earth
87. buck and d_e *n.* a mature female of mammals of which the male is called a buck, such as a deer or a rabbit
88. physically di_____te location *adj.* very different or distinct from something else and is not connected or comparable in any way
89. re_____nt with the sound *adj.* tending to reinforce or prolong sound by sympathetic vibration; having a quality that elicits a similar response or feeling
90. ho_____mb lattice *n.* a structure of hexagonal cells made of wax by bees as a place to store honey and to rear their young
91. life's little cu_____ll *n.* a pitch in baseball that breaks unexpectedly; a surprising or unexpected twist or turn in a situation

ANSWERS: 83. unanswered, 84. spectrograph, 85. gravitational, 86. miner, 87. doe, 88. disparate, 89. resonant, 90. honeycomb, 91. curveball

92. Jo___n planet *adj.* relating to Jupiter or its characteristics
93. ev_____ve language *adj.* tending to evoke or bring something to mind
94. fl__y mission *n.* a close approach to a celestial body, especially a planet, by a spacecraft without landing or entering orbit
95. una_____ed love *adj.* not responded to or explained
96. tom_____hy image *n.* a diagnostic imaging technique used to produce detailed images of structures inside the body, typically by using X-rays, CT scans, or ultrasound
97. a squirrel pho_____ing *n.* the act of unexpectedly appearing in someone else's photo as a joke or ruining the shot
98. meet by hap_____nce *n.* an occurrence that happens by chance; a fortuitous event, or a coincidence
99. phe_____al success *adj.* extremely good or impressive; outstanding
100. feel ca_____k *adj.* feeling nauseous or dizzy as a result of being in a moving vehicle
101. humble ab__e *n.* a place where one lives; a dwelling; a house, or other shelters
102. in_____t a cave *v.* to live in a specific location; to reside
103. apply fi_____ip pressure *n.* the end or tip of a finger
104. amateur ast_____er *n.* a physicist who studies astronomy
105. a five-plane fl__y *n.* a close approach to a celestial body, especially a planet, by a spacecraft without landing or entering orbit

ANSWERS: 92. Jovian, 93. evocative, 94. flyby, 95. unanswered, 96. tomography, 97. photobombing, 98. happenstance, 99. phenomenal, 100. carsick, 101. abode, 102. inhabit, 103. fingertip, 104. astronomer, 105. flyby

106. er__t in anger *v.* (of a volcano) to become active and eject rocks, smoke, etc.; to start abruptly and violently
107. a spiral ne___a *n.* a cloud of gas and dust in space, visible in the night sky, typically as a diffuse light source
108. sw__l the wine *v.* to move in a circular or spiral pattern
109. complicated con_____on *n.* a machine or device that is made up of a combination of interconnected parts and often appears complicated or unusual
110. ret_____de motion *adj.* moving or occurring in a direction opposite to the usual or normal one or going back to an earlier or worse condition
111. pri_____al gas *adj.* existing from the beginning of time or the start of a particular process; relating to the earliest stage of the universe
112. interstellar int_____er *n.* a person who intrudes into a place or sphere of activity where they are not wanted or are considered not to belong
113. with a go__y expression *adj.* silly or foolish
114. bio_____ures detection *n.* distinctive chemical or physical features that indicate the presence of past or current life
115. p__e around the desk *v.* to push or prod with a sharp object or the finger
116. de_____t his criticism *v.* to cause something, especially a criticism or attack, to be directed away from someone

ANSWERS: 106. erupt, 107. nebula, 108. swirl, 109. contraption, 110. retrograde, 111. primordial, 112. interloper, 113. goofy, 114. biosignature, 115. poke, 116. deflect

117. di_____te impact

adj. very different or distinct from something else and is not connected or comparable in any way

118. he___m gas

n. a colorless, odorless, tasteless, non-toxic, inert, monatomic gas, the first in the noble gas series in the periodic table

ANSWERS: 117. disparate, 118. helium

Session 3: Fill in the Blanks

1. He was studying _____ in an attempt to understand the origins of the universe.
 - n.* the branch of physics concerned with the study of the properties and behavior of celestial objects and the physical processes that govern the behavior and evolution of the universe

2. He _____ a fire in the fireplace to warm the room.
 - v.* to start a fire; to light

3. The beehive was made of an intricate _____ pattern.
 - n.* a structure of hexagonal cells made of wax by bees as a place to store honey and to rear their young

4. There is very little water in the _____ atmosphere.
 - adj.* of or relating to Mars or its imaginary inhabitants

5. A _____ seagull ruined the group photo.
 - n.* the act of unexpectedly appearing in someone else's photo as a joke or ruining the shot

6. The archaeologist ran his _____ along the pattern of the tombstones.
 - n.* the end or tip of a finger

7. It is terrific to camp in _____ nature.
 - adj.* new and completely free from dirt or contamination

8. Educating hundreds of thousands of recruits is a _____ task.
 - adj.* extremely surprising or overwhelming and, therefore, difficult to understand or imagine

ANSWERS: 1. astrophysics, 2. kindled, 3. honeycomb, 4. Martian, 5. photobombing, 6. fingertips, 7. pristine, 8. mind-boggling

9. Scientists are searching for _____ on other planets that could indicate the presence of life.
n. distinctive chemical or physical features that indicate the presence of past or current life
10. I have no idea what sort of folks _____ the neighborhood.
v. to live in a specific location; to reside
11. The small cabin in the woods was his _____ for many years.
n. a place where one lives; a dwelling; a house, or other shelters
12. The _____ on Mars is gathering data on the planet's surface and sending it back to Earth.
n. a vehicle designed to travel over rough terrain, especially on the surface of a planet or moon
13. The _____ motion of the tide was gradually slowing down.
adj. directed or facing towards the inside; inside or inward-looking
14. The _____ force of the black hole was so strong that nothing, not even light, could escape.
adj. relating to or caused by gravity (= the force that attracts objects towards one another)
15. Prospects for the suspect's conviction are _____ due to a lack of helpful evidence.
adj. dark and gloomy or difficult to see through
16. He made a _____ face as he recalled this morning's events.
adj. silly or foolish

ANSWERS: 9. biosignatures, 10. inhabit, 11. abode, 12. rover, 13. inward, 14. gravitational, 15. murky, 16. goofy

17. The _____ moon Europa is believed to have an ocean beneath its icy surface.
adj. relating to Jupiter or its characteristics
18. The car's motion made her _____ and she had to pull over.
adj. feeling nauseous or dizzy as a result of being in a moving vehicle
19. The _____ balloons floated into the sky.
n. a colorless, odorless, tasteless, non-toxic, inert, monatomic gas, the first in the noble gas series in the periodic table
20. The pitcher threw a sharp _____ that the batter was not expecting.
n. a pitch in baseball that breaks unexpectedly; a surprising or unexpected twist or turn in a situation
21. The spacecraft will conduct a _____ of the moon to gather data.
n. a close approach to a celestial body, especially a planet, by a spacecraft without landing or entering orbit
22. The _____ on the drawer was loose and needed to be tightened.
n. a round handle, especially one used for opening or closing a door, drawer, or cabinet
23. She couldn't stop _____ her husband to take out the trash.
v. to annoy or irritate someone persistently with repeated complaints, requests, or criticism; (noun) an old or over-worked horse
24. The chef expertly _____ the sauce onto the plate.
v. to move in a circular or spiral pattern

ANSWERS: 17. Jovian, 18. carsick, 19. helium-filled, 20. curveball, 21. flyby, 22. knob, 23. nagging, 24. swirled

25. The sunset was so beautiful it looked like a _____ scene from a movie.
adj. of or relating to poetry (= a piece of writing that emphasizes the expression of feelings and ideas); using language in an imaginative and expressive way
26. A happy group of friends occupies the _____ of the picture.
n. the part of a view, picture, etc., that is nearest to the viewer
27. The _____ scan showed a clear image of the patient's internal organs.
n. a diagnostic imaging technique used to produce detailed images of structures inside the body, typically by using X-rays, CT scans, or ultrasound
28. Scientists believe a _____ may have erupted on one of Saturn's moons.
n. a type of volcano that erupts volatile substances such as gases or cryo-lavas (cold, volatile-rich mixtures) instead of molten rock (magma)
29. The galactic _____ was a beautiful sight through the telescope, with its vibrant colors and swirling clouds.
n. a cloud of gas and dust in space, visible in the night sky, typically as a diffuse light source
30. The police used a _____ scanner to identify the suspect.
n. a unique pattern of ridges and valleys on the surface of a finger that can be used to identify a person
31. The hunter's approach _____ the geese.
v. to cause to separate and go in different directions
32. The _____ at the party was not on the guest list and was asked to leave.
n. a person who intrudes into a place or sphere of activity where they are not wanted or are considered not to belong

ANSWERS: 25. poetic, 26. foreground, 27. tomography, 28. cryovolcano, 29. nebula, 30. fingerprint, 31. scattered, 32. interloper

33. She had to _____ the door to escape the room.
n. to remove a bolt or lock from a door or window
34. The coal _____ worked tirelessly to extract valuable minerals from deep underground.
n. a person who works in a mine (= excavation in the Earth from which ores and minerals are extracted), especially one who extracts coal, minerals, or precious metals from the Earth
35. The inventor created a _____ that could turn salt water into drinking water.
n. a machine or device that is made up of a combination of interconnected parts and often appears complicated or unusual
36. The rocket's casing was made of _____ for its light weight and strength.
n. a light, strong, brittle metallic element with the symbol Be and atomic number 4, used in nuclear reactors, aerospace, and other high-tech applications
37. Pardon me for leaving some of your questions _____.
adj. not responded to or explained
38. The island was formed by a _____ millions of years ago.
n. a mountain or hill, typically conical, having a crater or vent through which lava, rock fragments, hot vapor, and gas are or have been erupted from the earth's crust.
39. The mystery _____ as the detectives gathered more clues.
v. to open up or spread out something that is folded or rolled up; to reveal or disclose something that was previously hidden or unknown

ANSWERS: 33. unbolt, 34. miner, 35. contraption, 36. beryllium, 37. unanswered, 38. volcano, 39. unfolded

40. The soccer player was able to _____ the ball away from the goal.
- v.* to cause something, especially a criticism or attack, to be directed away from someone
41. The _____ frequency of the guitar string was measured with a tuner.
- adj.* tending to reinforce or prolong sound by sympathetic vibration; having a quality that elicits a similar response or feeling
42. Battles between whites and blacks _____ immediately.
- v.* (of a volcano) to become active and eject rocks, smoke, etc.; to start abruptly and violently
43. This question has fascinated solar _____ for decades.
- n.* a physicist who studies astronomy
44. The discovery of liquid water on Mars has opened up new avenues for _____ research.
- n.* the study of the origin, evolution, distribution, and future of life in the universe, including the search for extraterrestrial life
45. The language used in the article was technical _____ making it difficult for non-experts to understand.
- n.* the special vocabulary or terminology used by a particular group or profession
46. The music was _____ of a bygone era.
- adj.* tending to evoke or bring something to mind
47. The walls were _____ to create a private outdoor space.
- v.* to surround, as with a fence, wall, or barrier; to put within boundaries; to include

ANSWERS: 40. deflect, 41. resonant, 42. erupted, 43. astronomers, 44. astrobiology, 45. lingo, 46. evocative, 47. enclosed

48. The athlete's _____ performance broke all previous records.
adj. extremely good or impressive; outstanding
49. The organization worked to bring together _____ groups in the community.
adj. very different or distinct from something else and is not connected or comparable in any way
50. It was a mere _____ that they both ended up at the same restaurant.
n. an occurrence that happens by chance; a fortuitous event, or a coincidence
51. They _____ fun at each other's jokes, laughing and teasing.
v. to push or prod with a sharp object or the finger
52. I asked the lawyer to initiate _____ negotiations for voluntary liquidation.
n. a person, company, etc. to whom a debtor owes money
53. The animal was _____ in a small cage.
v. to restrict the movement of someone or something
54. Supercomputers enable scientists to create computational models of the _____.
n. another name for the universe, mainly used when it is thought of as an ordered system
55. The _____ of musicians played a beautiful symphony together.
n. a group or set of five people or things or a musical composition for five performers
56. The discovery of the _____ soup was a crucial step in understanding the origins of life on Earth.
adj. existing from the beginning of time or the start of a particular process; relating to the earliest stage of the universe

ANSWERS: 48. phenomenal, 49. disparate, 50. happenstance, 51. poked, 52. creditor, 53. confined, 54. cosmos, 55. quintet, 56. primordial

57. The _____ data showed that the element was composed of multiple spectral lines.
- n.* an instrument that separates light into its component wavelengths and records the distribution of intensities as a graph, used for chemical analysis or to determine the properties of stars and galaxies
58. The _____ motion of the planet was unusual and required further investigation.
- adj.* moving or occurring in a direction opposite to the usual or normal one or going back to an earlier or worse condition
59. Hunters use a whistle that makes the ____ sound to lure stags.
- n.* a mature female of mammals of which the male is called a buck, such as a deer or a rabbit

ANSWERS: 57. spectrograph, 58. retrograde, 59. doe