

Englist.me



Vocabulary Builder Reference from...

Leila Pirhaji: The medical potential of AI and metabolites | TED Talk

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

All Words

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

sequence

n. a series of related events, actions, numbers, etc., which have a particular order

synonym: arrangement, succession, series

(1) the **sequence** of the seasons, (2) the DNA **sequence**

We do move forward with those tasks in **sequence** next week.

genome

n. the complete set or sequence of genes of a human, animal, plant, or other living things

(1) sequencing of the human **genome**, (2) **genome** analyses

The human **genome** contains approximately three billion chemical base pairs.

disease

n. a disorder or illness that affects the body or mind, often characterized by specific symptoms or abnormal functioning of organs or systems

synonym: illness, ailment, affliction

(1) **disease** prevention, (2) **disease** control

The doctor diagnosed him with a rare **disease** that had no known cure.

addition

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

synonym: accumulation, expansion, addendum

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

In **addition**, private corporations provide healthcare services.

environment

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

synonym: atmosphere, surroundings, climate

(1) **environment** affairs, (2) chaotic **environment**

Every human is responsible for taking care of the Earth's **environment**.

develop

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

synonym: evolve, progress, advance

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

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

fatty

adj. containing a lot of fat

synonym: greasy, oily

(1) less **fatty** meat, (2) **fatty** acid

You should keep away from **fatty** foods.

liver

n. a large organ in the body, involved in many metabolic processes, such as detoxification of the organism, and the synthesis of proteins

(1) **liver** disease, (2) fatty **liver**

The patient will undergo **liver** transplant surgery tomorrow.

cancer

n. abnormal growth of cells that can invade and destroy surrounding tissues and organs; a disease characterized by the uncontrolled growth and spread of abnormal cells

synonym : tumor, carcinoma, malignancy

(1) **cancer** diagnosis, (2) **cancer** research

Breast **cancer** is the most common type of cancer in women.

therapeutic

adj. relating to or involved in the treatment of illness or injury

synonym : healing, remedial, curative

(1) **therapeutic** massage, (2) **therapeutic** administration

Yoga is known to have **therapeutic** benefits for the mind and body.

molecule

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

synonym : particle, element, atom

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

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

metabolite

n. a substance produced by metabolic processes in living organisms, especially those that are essential for normal physiological functions

synonym : intermediate

(1) **metabolite** concentration, (2) drug **metabolite**

The liver **metabolite** levels were higher than usual.

glucose

n. a type of sugar that is found in plants, especially fruit, and is an essential energy source in living things

synonym : sugar, blood sugar

(1) blood **glucose** test, (2) **glucose** level

The doctor injected **glucose** into his patient's veins.

fructose

n. a simple sugar that is found in many fruits and vegetables and is about twice as sweet as sucrose

synonym : fruit sugar, levulose, laevulose

(1) **fructose** content, (2) heredity **fructose** intolerance

High **fructose** corn syrup is a common ingredient in processed foods.

cholesterol

n. a type of fat that is found in the blood and cells of the body and that is important for many bodily functions but can also contribute to heart disease and stroke when levels are too high

synonym: fat, lipid, sterol

(1) **cholesterol** levels, (2) low **cholesterol**

High levels of **cholesterol** can increase the risk of heart disease.

involve

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

synonym: implicate, include, engage

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

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

metabolism

n. the set of chemical reactions in cells or organisms that are necessary for life-sustaining

(1) **metabolism** enzyme, (2) hemoglobin **metabolism**

Better sleep leads to increased **metabolism**.

downstream

adv. in the direction that a stream or river flows; (adjective) in the direction of a stream's current

synonym: lower, below, later

(1) go **downstream** in a boat, (2) **downstream** processing

The boat drifted **downstream** and was carried away by the current.

essential

adj. indispensable; fundamental

synonym: critical, crucial, basic

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

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

patient

n. a person who is receiving medical treatment, care, or attention from a healthcare professional, such as a doctor, nurse, or therapist; a personal quality or

characteristic

synonym : client, recipient, subject

(1) **patient** in the hospital, (2) **patient** with weight loss

The doctor carefully examined the **patient's** medical history.

medical

adj. relating to the treatment of illness or injuries; relating to the practice of medicine

synonym : health, disease, treatment

(1) a **medical** opinion, (2) temporary **medical** treatment

The **medical** team worked quickly to save the patient's life.

mathematics

n. the science dealing with the logic of quantities, shapes, spaces, and arrangement

synonym : arithmetic, calculation, calculus

(1) a good grounding in **mathematics**, (2) **mathematics** competition

He has a flair for **mathematics**.

medicinal

adj. of or relating to the treatment or cure of disease

synonym : curative, therapeutic, healing

(1) **medicinal** chemistry, (2) traditional **medicinal**

The **medicinal** properties of this herb have been known to help with various ailments.

algorithm

n. a set of rules or rigorous instructions typically used to solve a specific problem or to perform a computation

synonym : logic, method, rule

(1) the RSA **algorithm**, (2) **algorithm** for image processing

We can evaluate the performance of an **algorithm** in terms of computation time.

analyze

v. to think about in-depth and evaluate to discover essential features or meaning

synonym : explore, examine, investigate

(1) **analyze** a chemical compound, (2) **analyze** your real motives

The teacher attempted to **analyze** the root cause of our mistake.

biology

n. 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.

intervene

v. to intentionally get involved in a situation to improve it or prevent it from getting worse

synonym: interfere, mediate, intercede

(1) **intervene** in a dispute, (2) **intervene** between quarreling parties

Following international law, our country does not **intervene** in the internal affairs of our neighbors.

molecular

adj. of or relating to molecules (= a group of two or more atoms held together by attractive forces known as chemical bonds)

synonym: microscopic, atomic

(1) **molecular** structure, (2) **molecular** biology

Molecular weight is the sum of all the atoms.

mass

n. a large amount of a substance with no definite shape or form; a large number of people or things grouped or crowded together

synonym: abundance, crowd, mob

(1) a **mass** of molten rock, (2) critical **mass**

The **mass** of people who do not own property is politically impotent.

spectrometer

n. a scientific device used to measure the properties of light or other radiation, often used in chemistry and physics to analyze the composition of materials

synonym: spectroscope, analyzer, detector

(1) **spectrometer** measurement, (2) optical **spectrometer**

The infrared **spectrometer** helped identify the chemical composition of the sample.

instrument

n. an object used to make musical sounds, such as a piano, guitar, or drum; a tool or device used for a specific activity, particularly in specialist or scientific work

synonym : apparatus, tool, device

(1) musical **instruments**, (2) surgical **instruments**

This electronic **instrument** is required to undergo periodic inspections to ensure precision.

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.

experiment

n. the scientific test conducted to observe what happens and gain new knowledge

synonym : experimentation, investigation

(1) **experiment** design, (2) series of **experiments**

His **experiments** showed highly positive results.

intelligence

n. the ability to learn, comprehend, or make judgments or conclusions based on reasons

synonym : brains, brightness, cleverness

(1) an **intelligence** test, (2) field of artificial **intelligence**

In terms of **intelligence**, he was head and shoulders above his classmates.

AI

n. (abbreviation for artificial intelligence) the theory and development of computer systems capable of doing activities that would ordinarily need human intelligence, such as object recognition, speech recognition, decision-making, and language translation

synonym : robot, machine learning, neural network

(1) **AI** expert, (2) apply **AI** technology to art

The evolution of processors has dramatically improved the performance of **AI**.

platform

n. the raised flat space close to the track at a train station where passengers get on or off the train; (technology) a computational or digital environment in which a piece of software is executed

synonym : stage, podium, forum

(1) an arrival **platform**, (2) a digital **platform** for enterprise

The speaker mounted the **platform** and started to speak.

lever

n. a handle used to operate a vehicle or a machine; a rigid bar resting on a pivot so that one end of it can be pushed or pulled easily

synonym : lifter, crowbar, bar

(1) a gear change **lever**, (2) **lever** for reform

This initiative will be a **lever** for increasing company sales.

database

n. a large amount of data stored in a computer system in such a way that it can be searched and updated easily

(1) **database** administrator, (2) employee **database**

Each country's officials can access the central **database**.

interaction

n. the act of connecting with someone, mainly when working, playing, or spending time with them

synonym : dealings, exchange, relations

(1) the **interaction** between man and his environment,

(2) **interaction** among human beings

The **interaction** of the two groups is good for brainstorming.

combine

v. to join or merge to form a single thing or group

synonym : coalesce, cohere, blend

(1) **combine** chemically with another substance,

(2) **combine** augmented reality

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

tissue

n. an ensemble of similar cells of the animal or plant that together carry out a specific function

synonym: structure, texture, anatomy

(1) a facial **tissue**, (2) loss of muscle **tissue**

The researcher separated the nervous **tissue** for microscopic examinations.

mention

v. to speak or write about something or someone briefly

synonym: reference, allude, cite

(1) **mention** name, (2) **mention** in a report

I **mentioned** to him that I had seen his sister at the grocery store earlier that day.

galactose

n. a simple sugar that is found in milk and dairy products and is an important component of lactose, also used in the production of certain types of biodegradable plastics

synonym: sugar

(1) consumption of **galactose**, (2) **galactose** metabolism

People with **galactose** intolerance must avoid dairy products because their bodies cannot break down this sugar.

function

n. the purpose or use of an object, system, or process; a particular activity or operation that is designed to serve a specific purpose; a mathematical concept that describes a relationship between two sets of values, called the input and output sets; (verb) to operate or work in a specific way, or to perform a particular task or purpose

synonym: purpose, mapping, job

(1) **function** properly, (2) immune **function**

The brain is an incredibly complex organ that controls the body's **function**.

ambiguity

n. 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.

infer

v. to form an opinion or conclude that something is true based on existing facts

synonym: guess, deduce, assume

(1) **infer** quality from price, (2) **infer** the possibility
Animal desire and preference are always **inferred** from their behavior.

discovery

n. 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**.

novel

n. an extended fictional work in prose; usually in the form of a story; (adjective) original and of a kind not seen before

synonym: fiction, story, (adjective) innovative

(1) historical **novel**, (2) **novel** effect

The **novel** has largely gotten positive feedback.

mechanism

n. a part of a machine, or a set of parts that performs a task; a natural or established process that occurs during a specific situation or reaction

synonym: means, method, system

(1) the **mechanism** for DNA replication, (2) defense **mechanism**

He discovered unique **mechanisms** for photochemical reactions.

start-up

n. a newly established company or business

(1) **start-up** business, (2) early-stage **start-up**
Our company's services are targeted at **start-up** executives.

accumulation

n. an amount of something obtained via natural growth or addition

synonym: accretion, pileup, upsurge

(1) **accumulation** of wealth, (2) **accumulation** effect
Accumulation of fuel discounts is common practice among many retailers.

epidemic

n. the widespread outbreak of a particular disease in a large number of people at the same time

synonym: outbreak, contagion, plague

(1) a worldwide **epidemic**, (2) health **epidemic**
The disease is now reaching **epidemic** proportions in our country.

moving

adj. causing strong emotions or feelings, especially sadness or sympathy

synonym: emotional, poignant, touching

(1) **moving** experience, (2) **moving** ceremony
His **moving** speech about his struggles with addiction brought tears to the audience's eyes.

tackle

v. to try to deal with a complex problem or situation

synonym: deal with, dive into, work on

(1) **tackle** the issue, (2) help **tackle** climate change
The government is determined to **tackle** sharp inflation.

vision

n. the ability to think about or see the future with imagination and intelligence; the faculty of being able to see

synonym: sight, image, concept

(1) a prodigious **vision**, (2) telescopic **vision**
Driving is difficult for me because of my poor **vision**.

Session 2: Spelling

- | | |
|--|---|
| 1. mat_____cs competition | <i>n.</i> the science dealing with the logic of quantities, shapes, spaces, and arrangement |
| 2. chaotic env_____nt | <i>n.</i> the natural world such as air, water, and land in which humans, animals, and plants live |
| 3. heredity fr_____se intolerance | <i>n.</i> a simple sugar that is found in many fruits and vegetables and is about twice as sweet as sucrose |
| 4. small mo_____les | <i>n.</i> a group of two or more atoms held together by attractive forces known as chemical bonds |
| 5. no__l effect | <i>n.</i> an extended fictional work in prose; usually in the form of a story; (adjective) original and of a kind not seen before |
| 6. field of artificial int_____nce | <i>n.</i> the ability to learn, comprehend, or make judgments or conclusions based on reasons |
| 7. es_____al amino acid | <i>adj.</i> indispensable; fundamental |
| 8. id_____fy handwriting | <i>v.</i> to recognize someone or something and say or prove who or what they are |
| 9. mo_____g ceremony | <i>adj.</i> causing strong emotions or feelings, especially sadness or sympathy |
| 10. the great di_____ry of the century | <i>n.</i> the act or process of finding information, a place, or an object, or learning about something that was previously not known |

ANSWERS: 1. mathematics, 2. environment, 3. fructose, 4. molecule, 5. novel, 6. intelligence, 7. essential, 8. identify, 9. moving, 10. discovery

11. the me_____sm for DNA replication *n.* a part of a machine, or a set of parts that performs a task; a natural or established process that occurs during a specific situation or reaction
12. a me_____l opinion *adj.* relating to the treatment of illness or injuries; relating to the practice of medicine
13. in_____e a high degree of risk *v.* to include or affect someone or something as a necessary part of something else
14. optical spe_____ter *n.* a scientific device used to measure the properties of light or other radiation, often used in chemistry and physics to analyze the composition of materials
15. me_____n name *v.* to speak or write about something or someone briefly
16. consumption of ga_____se *n.* a simple sugar that is found in milk and dairy products and is an important component of lactose, also used in the production of certain types of biodegradable plastics
17. in_____ne between quarreling parties *v.* to intentionally get involved in a situation to improve it or prevent it from getting worse
18. in_____ne in a dispute *v.* to intentionally get involved in a situation to improve it or prevent it from getting worse
19. less fa__y meat *adj.* containing a lot of fat
20. fatty li__r *n.* a large organ in the body, involved in many metabolic processes, such as detoxification of the organism, and the synthesis of proteins

ANSWERS: 11. mechanism, 12. medical, 13. involve, 14. spectrometer, 15. mention, 16. galactose, 17. intervene, 18. intervene, 19. fatty, 20. liver

21. int_____on among human beings *n.* the act of connecting with someone, mainly when working, playing, or spending time with them
22. di_____e control *n.* a disorder or illness that affects the body or mind, often characterized by specific symptoms or abnormal functioning of organs or systems
23. in__r quality from price *v.* to form an opinion or conclude that something is true based on existing facts
24. an_____e a chemical compound *v.* to think about in-depth and evaluate to discover essential features or meaning
25. the se_____ce of the seasons *n.* a series of related events, actions, numbers, etc., which have a particular order
26. traditional me_____al *adj.* of or relating to the treatment or cure of disease
27. env_____nt affairs *n.* the natural world such as air, water, and land in which humans, animals, and plants live
28. an_____e your real motives *v.* to think about in-depth and evaluate to discover essential features or meaning
29. a facial ti_____e *n.* an ensemble of similar cells of the animal or plant that together carry out a specific function
30. me_____al chemistry *adj.* of or relating to the treatment or cure of disease
31. the_____ic administration *adj.* relating to or involved in the treatment of illness or injury

ANSWERS: 21. interaction, 22. disease, 23. infer, 24. analyze, 25. sequence, 26. medicinal, 27. environment, 28. analyze, 29. tissue, 30. medicinal, 31. therapeutic

32. immune fu____on *n.* the purpose or use of an object, system, or process; a particular activity or operation that is designed to serve a specific purpose; a mathematical concept that describes a relationship between two sets of values, called the input and output sets; (verb) to operate or work in a specific way, or to perform a particular task or purpose
33. help ta___e climate change *v.* to try to deal with a complex problem or situation
34. mo___g experience *adj.* causing strong emotions or feelings, especially sadness or sympathy
35. chemical ad____on *n.* the act or process of adding something to something else; the process of adding numbers
36. an arrival pl____rm *n.* the raised flat space close to the track at a train station where passengers get on or off the train; (technology) a computational or digital environment in which a piece of software is executed
37. apply AI technology to art *n.* (abbreviation for artificial intelligence) the theory and development of computer systems capable of doing activities that would ordinarily need human intelligence, such as object recognition, speech recognition, decision-making, and language translation
38. loss of muscle ti___e *n.* an ensemble of similar cells of the animal or plant that together carry out a specific function

ANSWERS: 32. function, 33. tackle, 34. moving, 35. addition, 36. platform, 37. AI, 38. tissue

39. a gear change le__r *n.* a handle used to operate a vehicle or a machine; a rigid bar resting on a pivot so that one end of it can be pushed or pulled easily
40. st____up business *n.* a newly established company or business
41. ta___e the issue *v.* to try to deal with a complex problem or situation
42. early-stage st____up *n.* a newly established company or business
43. met_____sm enzyme *n.* the set of chemical reactions in cells or organisms that are necessary for life-sustaining
44. da_____se administrator *n.* a large amount of data stored in a computer system in such a way that it can be searched and updated easily
45. ca___r research *n.* abnormal growth of cells that can invade and destroy surrounding tissues and organs; a disease characterized by the uncontrolled growth and spread of abnormal cells
46. telescopic vi___n *n.* the ability to think about or see the future with imagination and intelligence; the faculty of being able to see
47. le__r for reform *n.* a handle used to operate a vehicle or a machine; a rigid bar resting on a pivot so that one end of it can be pushed or pulled easily
48. hemoglobin met_____sm *n.* the set of chemical reactions in cells or organisms that are necessary for life-sustaining

ANSWERS: 39. lever, 40. start-up, 41. tackle, 42. start-up, 43. metabolism, 44. database, 45. cancer, 46. vision, 47. lever, 48. metabolism

49. me_____n in a report *v.* to speak or write about something or someone briefly
50. go dow_____am in a boat *adv.* in the direction that a stream or river flows; (adjective) in the direction of a stream's current
51. the_____ic massage *adj.* relating to or involved in the treatment of illness or injury
52. exp_____nt design *n.* the scientific test conducted to observe what happens and gain new knowledge
53. a scientific di_____ry *n.* the act or process of finding information, a place, or an object, or learning about something that was previously not known
54. low cho_____ol *n.* a type of fat that is found in the blood and cells of the body and that is important for many bodily functions but can also contribute to heart disease and stroke when levels are too high
55. ge___e analyses *n.* the complete set or sequence of genes of a human, animal, plant, or other living things
56. fu_____on properly *n.* the purpose or use of an object, system, or process; a particular activity or operation that is designed to serve a specific purpose; a mathematical concept that describes a relationship between two sets of values, called the input and output sets; (verb) to operate or work in a specific way, or to perform a particular task or purpose

ANSWERS: 49. mention, 50. downstream, 51. therapeutic, 52. experiment, 53. discovery, 54. cholesterol, 55. genome, 56. function

57. co____e chemically with another substance *v.* to join or merge to form a single thing or group
58. mo_____ar biology *adj.* of or relating to molecules (= a group of two or more atoms held together by attractive forces known as chemical bonds)
59. cell and molecular bi____y *n.* the scientific study of life and the natural processes of living things
60. de____p a strategy *v.* to grow or expand; to improve or refine through a process of progress and refinement, often to achieve greater sophistication or complexity; to elaborate or add detail to something that is in the process of being created
61. temporary me____l treatment *adj.* relating to the treatment of illness or injuries; relating to the practice of medicine
62. acc_____ion effect *n.* an amount of something obtained via natural growth or addition
63. the DNA se____ce *n.* a series of related events, actions, numbers, etc., which have a particular order
64. mo____le behavior *n.* a group of two or more atoms held together by attractive forces known as chemical bonds
65. critical m__s *n.* a large amount of a substance with no definite shape or form; a large number of people or things grouped or crowded together

ANSWERS: 57. combine, 58. molecular, 59. biology, 60. develop, 61. medical, 62. accumulation, 63. sequence, 64. molecule, 65. mass

66. acc_____ion of wealth *n.* an amount of something obtained via natural growth or addition
67. a m__s of molten rock *n.* a large amount of a substance with no definite shape or form; a large number of people or things grouped or crowded together
68. fa__y acid *adj.* containing a lot of fat
69. health ep_____ic *n.* the widespread outbreak of a particular disease in a large number of people at the same time
70. co_____e augmented reality *v.* to join or merge to form a single thing or group
71. pa_____t with weight loss *n.* a person who is receiving medical treatment, care, or attention from a healthcare professional, such as a doctor, nurse, or therapist; a personal quality or characteristic
72. musical ins_____nts *n.* an object used to make musical sounds, such as a piano, guitar, or drum; a tool or device used for a specific activity, particularly in specialist or scientific work
73. in__r the possibility *v.* to form an opinion or conclude that something is true based on existing facts
74. a worldwide ep_____ic *n.* the widespread outbreak of a particular disease in a large number of people at the same time
75. dow_____am processing *adv.* in the direction that a stream or river flows; (adjective) in the direction of a stream's current

ANSWERS: 66. accumulation, 67. mass, 68. fatty, 69. epidemic, 70. combine, 71. patient, 72. instrument, 73. infer, 74. epidemic, 75. downstream

76. ca___r diagnosis *n.* abnormal growth of cells that can invade and destroy surrounding tissues and organs; a disease characterized by the uncontrolled growth and spread of abnormal cells
77. ad_____on of vectors *n.* the act or process of adding something to something else; the process of adding numbers
78. pa_____t in the hospital *n.* a person who is receiving medical treatment, care, or attention from a healthcare professional, such as a doctor, nurse, or therapist; a personal quality or characteristic
79. in_____e a lot of paperwork *v.* to include or affect someone or something as a necessary part of something else
80. defense me_____sm *n.* a part of a machine, or a set of parts that performs a task; a natural or established process that occurs during a specific situation or reaction
81. AI expert *n.* (abbreviation for artificial intelligence) the theory and development of computer systems capable of doing activities that would ordinarily need human intelligence, such as object recognition, speech recognition, decision-making, and language translation
82. al_____hm for image processing *n.* a set of rules or rigorous instructions typically used to solve a specific problem or to perform a computation

ANSWERS: 76. cancer, 77. addition, 78. patient, 79. involve, 80. mechanism, 81. AI, 82. algorithm

83. employee da_____se *n.* a large amount of data stored in a computer system in such a way that it can be searched and updated easily
84. the int_____on between man and his environment *n.* the act of connecting with someone, mainly when working, playing, or spending time with them
85. sequencing of the human ge____e *n.* the complete set or sequence of genes of a human, animal, plant, or other living things
86. di_____e prevention *n.* a disorder or illness that affects the body or mind, often characterized by specific symptoms or abnormal functioning of organs or systems
87. ga_____se metabolism *n.* a simple sugar that is found in milk and dairy products and is an important component of lactose, also used in the production of certain types of biodegradable plastics
88. evolutionary bi_____y *n.* the scientific study of life and the natural processes of living things
89. a digital pl_____rm for enterprise *n.* the raised flat space close to the track at a train station where passengers get on or off the train; (technology) a computational or digital environment in which a piece of software is executed
90. a good grounding in mat_____cs *n.* the science dealing with the logic of quantities, shapes, spaces, and arrangement
91. li__r disease *n.* a large organ in the body, involved in many metabolic processes, such as detoxification of the organism, and the synthesis of proteins

ANSWERS: 83. database, 84. interaction, 85. genome, 86. disease, 87. galactose, 88. biology, 89. platform, 90. mathematics, 91. liver

92. met_____te concentration *n.* a substance produced by metabolic processes in living organisms, especially those that are essential for normal physiological functions
93. gl_____e level *n.* a type of sugar that is found in plants, especially fruit, and is an essential energy source in living things
94. id_____fy gene sequences *v.* to recognize someone or something and say or prove who or what they are
95. avoid am_____ty in writing *n.* the quality of being open to more than one interpretation; the uncertainty of meaning
96. the RSA al_____hm *n.* a set of rules or rigorous instructions typically used to solve a specific problem or to perform a computation
97. mo_____ar structure *adj.* of or relating to molecules (= a group of two or more atoms held together by attractive forces known as chemical bonds)
98. historical no___l *n.* an extended fictional work in prose; usually in the form of a story; (adjective) original and of a kind not seen before
99. fr_____se content *n.* a simple sugar that is found in many fruits and vegetables and is about twice as sweet as sucrose
100. free from am_____ty *n.* the quality of being open to more than one interpretation; the uncertainty of meaning
101. de_____p a skill *v.* to grow or expand; to improve or refine through a process of progress and refinement, often to achieve greater sophistication or complexity; to elaborate or add detail to something that is in the process of being created

ANSWERS: 92. metabolite, 93. glucose, 94. identify, 95. ambiguity, 96. algorithm, 97. molecular, 98. novel, 99. fructose, 100. ambiguity, 101. develop

102. cho_____ol levels *n.* a type of fat that is found in the blood and cells of the body and that is important for many bodily functions but can also contribute to heart disease and stroke when levels are too high
103. blood gl_____e test *n.* a type of sugar that is found in plants, especially fruit, and is an essential energy source in living things
104. es_____al commodities of life *adj.* indispensable; fundamental
105. a prodigious vi____n *n.* the ability to think about or see the future with imagination and intelligence; the faculty of being able to see
106. drug met_____te *n.* a substance produced by metabolic processes in living organisms, especially those that are essential for normal physiological functions
107. surgical ins_____nts *n.* an object used to make musical sounds, such as a piano, guitar, or drum; a tool or device used for a specific activity, particularly in specialist or scientific work
108. spe_____ter measurement *n.* a scientific device used to measure the properties of light or other radiation, often used in chemistry and physics to analyze the composition of materials
109. series of exp_____nts *n.* the scientific test conducted to observe what happens and gain new knowledge
110. an int_____nce test *n.* the ability to learn, comprehend, or make judgments or conclusions based on reasons

ANSWERS: 102. cholesterol, 103. glucose, 104. essential, 105. vision, 106. metabolite, 107. instrument, 108. spectrometer, 109. experiment, 110. intelligence

ANSWERS:

Session 3: Fill in the Blanks

1. The doctor diagnosed him with a rare _____ that had no known cure.
n. a disorder or illness that affects the body or mind, often characterized by specific symptoms or abnormal functioning of organs or systems
2. His _____ speech about his struggles with addiction brought tears to the audience's eyes.
adj. causing strong emotions or feelings, especially sadness or sympathy
3. The speaker mounted the _____ and started to speak.
n. the raised flat space close to the track at a train station where passengers get on or off the train; (technology) a computational or digital environment in which a piece of software is executed
4. Hydrogen and oxygen _____ to form water.
v. to join or merge to form a single thing or group
5. The investigation _____ several government agencies and is expected to take several months.
v. to include or affect someone or something as a necessary part of something else
6. Better sleep leads to increased _____.
n. the set of chemical reactions in cells or organisms that are necessary for life-sustaining
7. The _____ of people who do not own property is politically impotent.
n. a large amount of a substance with no definite shape or form; a large number of people or things grouped or crowded together

ANSWERS: 1. disease, 2. moving, 3. platform, 4. combine, 5. involves, 6. metabolism, 7. mass

8. The researcher separated the nervous _____ for microscopic examinations.
n. an ensemble of similar cells of the animal or plant that together carry out a specific function
9. High _____ corn syrup is a common ingredient in processed foods.
n. a simple sugar that is found in many fruits and vegetables and is about twice as sweet as sucrose
10. In junior high school, we had to dissect a frog in _____ class.
n. the scientific study of life and the natural processes of living things
11. He discovered unique _____ for photochemical reactions.
n. a part of a machine, or a set of parts that performs a task; a natural or established process that occurs during a specific situation or reaction
12. Our company's services are targeted at _____ executives.
n. a newly established company or business
13. The boat drifted _____ and was carried away by the current.
adv. in the direction that a stream or river flows; (adjective) in the direction of a stream's current
14. This initiative will be a _____ for increasing company sales.
n. a handle used to operate a vehicle or a machine; a rigid bar resting on a pivot so that one end of it can be pushed or pulled easily
15. The _____ team worked quickly to save the patient's life.
adj. relating to the treatment of illness or injuries; relating to the practice of medicine

ANSWERS: 8. tissue, 9. fructose, 10. biology, 11. mechanisms, 12. start-up, 13. downstream, 14. lever, 15. medical

16. I _____ to him that I had seen his sister at the grocery store earlier that day.
v. to speak or write about something or someone briefly
17. 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
18. Animal desire and preference are always _____ from their behavior.
v. to form an opinion or conclude that something is true based on existing facts
19. The _____ of the two groups is good for brainstorming.
n. the act of connecting with someone, mainly when working, playing, or spending time with them
20. Following international law, our country does not _____ in the internal affairs of our neighbors.
v. to intentionally get involved in a situation to improve it or prevent it from getting worse
21. The teacher attempted to _____ the root cause of our mistake.
v. to think about in-depth and evaluate to discover essential features or meaning
22. He has a flair for _____.
n. the science dealing with the logic of quantities, shapes, spaces, and arrangement
23. We must _____ a new system to streamline our workflow and increase efficiency.
v. to grow or expand; to improve or refine through a process of progress and refinement, often to achieve greater sophistication or complexity; to elaborate or add detail to something that is in the process of being created

ANSWERS: 16. mentioned, 17. identify, 18. inferred, 19. interaction, 20. intervene, 21. analyze, 22. mathematics, 23. develop

24. Trial and error is an _____ part of education.

adj. indispensable; fundamental

25. _____ of fuel discounts is common practice among many retailers.

n. an amount of something obtained via natural growth or addition

26. Breast _____ is the most common type of cancer in women.

n. abnormal growth of cells that can invade and destroy surrounding tissues and organs; a disease characterized by the uncontrolled growth and spread of abnormal cells

27. The evolution of processors has dramatically improved the performance of ____.

n. (abbreviation for artificial intelligence) the theory and development of computer systems capable of doing activities that would ordinarily need human intelligence, such as object recognition, speech recognition, decision-making, and language translation

28. Every human is responsible for taking care of the Earth's _____.

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

29. His _____ showed highly positive results.

n. the scientific test conducted to observe what happens and gain new knowledge

30. The human _____ contains approximately three billion chemical base pairs.

n. the complete set or sequence of genes of a human, animal, plant, or other living things

31. The _____ has largely gotten positive feedback.

n. an extended fictional work in prose; usually in the form of a story; (adjective) original and of a kind not seen before

ANSWERS: 24. essential, 25. Accumulation, 26. cancer, 27. AI, 28. environment, 29. experiments, 30. genome, 31. novel

32. We can evaluate the performance of an _____ in terms of computation time.
- n.* a set of rules or rigorous instructions typically used to solve a specific problem or to perform a computation
33. Each country's officials can access the central _____.
- n.* a large amount of data stored in a computer system in such a way that it can be searched and updated easily
34. In _____ private corporations provide healthcare services.
- n.* the act or process of adding something to something else; the process of adding numbers
35. In terms of _____ he was head and shoulders above his classmates.
- n.* the ability to learn, comprehend, or make judgments or conclusions based on reasons
36. We do move forward with those tasks in _____ next week.
- n.* a series of related events, actions, numbers, etc., which have a particular order
37. The doctor carefully examined the _____ medical history.
- n.* a person who is receiving medical treatment, care, or attention from a healthcare professional, such as a doctor, nurse, or therapist; a personal quality or characteristic
38. High levels of _____ can increase the risk of heart disease.
- n.* a type of fat that is found in the blood and cells of the body and that is important for many bodily functions but can also contribute to heart disease and stroke when levels are too high

ANSWERS: 32. algorithm, 33. database, 34. addition, 35. intelligence, 36. sequence, 37. patient's, 38. cholesterol

39. Yoga is known to have _____ benefits for the mind and body.
adj. relating to or involved in the treatment of illness or injury
40. The _____ properties of this herb have been known to help with various ailments.
adj. of or relating to the treatment or cure of disease
41. The _____ in the instructions made it difficult for her to complete the task.
n. the quality of being open to more than one interpretation; the uncertainty of meaning
42. The liver _____ levels were higher than usual.
n. a substance produced by metabolic processes in living organisms, especially those that are essential for normal physiological functions
43. The patient will undergo _____ transplant surgery tomorrow.
n. a large organ in the body, involved in many metabolic processes, such as detoxification of the organism, and the synthesis of proteins
44. The doctor injected _____ into his patient's veins.
n. a type of sugar that is found in plants, especially fruit, and is an essential energy source in living things
45. The disease is now reaching _____ proportions in our country.
n. the widespread outbreak of a particular disease in a large number of people at the same time
46. Her research team made an important _____.
n. the act or process of finding information, a place, or an object, or learning about something that was previously not known

ANSWERS: 39. therapeutic, 40. medicinal, 41. ambiguity, 42. metabolite, 43. liver, 44. glucose, 45. epidemic, 46. discovery

47. _____ weight is the sum of all the atoms.

adj. of or relating to molecules (= a group of two or more atoms held together by attractive forces known as chemical bonds)

48. The brain is an incredibly complex organ that controls the body's _____.

n. the purpose or use of an object, system, or process; a particular activity or operation that is designed to serve a specific purpose; a mathematical concept that describes a relationship between two sets of values, called the input and output sets; (verb) to operate or work in a specific way, or to perform a particular task or purpose

49. The government is determined to _____ sharp inflation.

v. to try to deal with a complex problem or situation

50. You should keep away from _____ foods.

adj. containing a lot of fat

51. The shape of the DNA _____ is a double helix.

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

52. This electronic _____ is required to undergo periodic inspections to ensure precision.

n. an object used to make musical sounds, such as a piano, guitar, or drum; a tool or device used for a specific activity, particularly in specialist or scientific work

53. People with _____ intolerance must avoid dairy products because their bodies cannot break down this sugar.

n. a simple sugar that is found in milk and dairy products and is an important component of lactose, also used in the production of certain types of biodegradable plastics

ANSWERS: 47. Molecular, 48. function, 49. tackle, 50. fatty, 51. molecule, 52. instrument, 53. galactose

54. Driving is difficult for me because of my poor _____.

- n.* the ability to think about or see the future with imagination and intelligence; the faculty of being able to see

55. The infrared _____ helped identify the chemical composition of the sample.

- n.* a scientific device used to measure the properties of light or other radiation, often used in chemistry and physics to analyze the composition of materials

ANSWERS: 54. vision, 55. spectrometer