Englist.me

Vocabulary Builder Reference from...

Ed Boyden: A new way to study the brain's invisible secrets | TED Talk https://www.ted.com/talks/ed_boyden_a_new_way_to _study_the_brain_s_invisible_secrets



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

swell	 v. to become larger or more inflated; to become more intense or important synonym: expand, increase, inflate
	(1) swell at room temperature, (2) swell a population
	His arm was swelling from the insect bite.
biomolecule	 n. a molecule produced by a living organism, typically composed of carbon, hydrogen, oxygen, nitrogen, and other elements, plays a vital role in various biological processes such as metabolism, energy production, and genetic information transfer synonym: biochemical, molecule, protein
	(1) biomolecule structure, (2) protein biomolecule
	DNA is a complex biomolecule that contains the genetic information of an organism.
pinpoint	 v. to locate or identify the exact position in space or time of something synonym: name, direct, identify
	(1) pinpoint the problem, (2) pinpoint signs of manipulation
	This radar quickly pinpoints the position of the enemy.

Alzheimer	 n. a neurodegenerative disease that causes memory loss, cognitive decline, and behavioral issues; is the most common cause of dementia in older adults synonym: dementia, memory loss, cognitive decline 				
	(1) Alzheimer's brain, (2) Alzheimer's risk factors				
	My grandmother has Alzheimer's disease requires special				
	care and attention from her caregivers.				
epilepsy	 n. a neurological disorder characterized by recurrent seizures or convulsions, which can manifest in a variety of ways and be caused by various factors synonym: seizures, convulsions, fits 				
	(1) epilepsy seizure, (2) epilepsy medication				
	The flashing lights at the concert triggered her epilepsy and caused a seizure.				
neuroscience	<i>n.</i> the scientific study of the function, structure, and disorder of the brain and the nervous system				
	(1) the branch of neuroscience , (2) a theoretical concept in neuroscience				
	Our university is famous for its professors, who are				
	well-versed in behavioral neuroscience.				
neuron	 a cell that is specialized to carry information within the brain and between the brain and other parts of the body synonym: nerve cell 				
	(1) excite the neurons , (2) neuron cell body				
	Our body transfers information along each neuron using an				
	electrical impulse.				
synapse	<i>n.</i> the fact or state of failing to finish an activity and of stopping using, making, or doing it				
	(1) synapse circuit, (2) end at a synapse				
	Animals transmit nerve impulses through synapses.				
rendition	<i>n.</i> a performance or interpretation, often of a piece of music or artwork; a version or translation of something				

	into another language or style; the act of surrendering someone to another country for interrogation or punishment synonym: interpretation, performance, presentation
	(1) rendition of judgment, (2) film rendition
	The singer gave a beautiful rendition of the classic song during the concert.
nanoscale	adj. on a scale that can be measured in nanometres (= one billionth of a meter); on a very small scale
	(1) nanoscale device, (2) things at the nanoscale
	This process improves the strength of the metal by controlling the nanoscale lattice structure of the metal.
mediate	 v. to try to bring about an agreement or understanding between people who are in conflict synonym: arbitrate, reconcile, intervene
	(1) mediate allergic reaction, (2) mediate a negotiation
	The teacher had to mediate a disagreement between two
	students over a stolen pencil.
afflict	 v. to cause pain, suffering, or distress to someone or something
	synonym: trouble, distress, bother
	(1) afflict with the plague, (2) afflict the economy
	The disease can afflict both humans and animals.
blob	<i>n.</i> a small amount or drop of a thick liquid or sticky substance
	synonym: chunk, lump, hunk
	(1) a big blob of yellow, (2) a blob of jelly
	A blob of ink fell on the floor.
voxel	 a 3D pixel (= a small but volumetric unit) in a three-dimensional space defined by x-, y-, and z- coordinates; a digital image element representing a tiny cube in a 3D picture, with its color and brightness

	determined by the values assigned to the voxels in its vicinity
	synonym: 3d pixel, volumetric pixel
	(1) voxel engine, (2) 3D voxel model
	Doctors used voxel-based imaging to create a 3D model of the patient's brain.
darn	 v. to mend a piece of clothing by sewing over a hole or tear with small, tight stitches synonym: mend, repair, patch
	(1) darn stockings, (2) darn hole
	I have to darn these socks before they become unwearable.
hundredfold	adj. a hundred times as great or as much
	(1) rise nearly hundredfold, (2) improve hundredfold
	The development team reported two hundredfold increases in performance.
exert	 v. to put forth effort; to put into action; to bring into play synonym: exert, apply, use
	(1) exert control, (2) exert influence
	He exerted himself to lift the heavyweight.
monomer	 <i>n</i>. a molecule capable of bonding chemically with other molecules to form a polymer, which is the basic building block of larger molecular structures <i>synonym</i>: building block, molecule, polymer unit
	(1) acrylamide monomer , (2) vinyl monomer
	The monomer units are joined together to form a polymer chain.
loosen	 v. to make something less tight, firm, or fixed; to free from restraint or constraint; to relax synonym: relax, slacken, untie
	(1) loosen grip, (2) loosen knot
	Please loosen the screws on the back panel so we can

access the inside of the machine.

glowing	adj. highly enthusiastic; greatly praised		
	synonym: burning, bright, flaming		
	(1) glowing reviews, (2) glowing cheeks		
	The western sky was glowing pink.		
constellation	 a group of stars that form a recognizable pattern and have a name; a group of related or similar ideas, things, or people 		
	synonym: asterism, array, pattern		
	(1) the stars of the Scorpion constellation , (2) northern constellation		
	Navigators still use the Little Bear constellation at sea.		
infuse	 v. to fill something with a particular quality, feeling, or influence; to imbue synonym: instill, fill, permeate 		
	(1) infuse with spirit, (2) infuse life with meaning		
	She infused fresh herbs into the soup for added flavor.		
threefold	<i>adj.</i> three times as great or as many <i>synonym</i> : three, triple, three times		
	(1) rise nearly threefold, (2) threefold increase		
	The price of the item was reduced threefold after the sale.		
biomedical	<i>adj.</i> relating to the application of the natural sciences, especially biology, and physiology, to clinical medicine and healthcare		
	synonym: medical, clinical, health-related		
	(1) biomedical assay, (2) cutting-edge biomedical		
	Biomedical engineering focuses on developing new medical		
	technologies and innovations to improve patient health outcomes.		
biopsy	<i>n.</i> the process of removing and examining tissue from the body of the sick person to determine the existence or		

(1) biopsy of bone marrow, (2) liquid biopsy The doctor performed an excisional breast biopsy.medicinaladj. of or relating to the treatment or cure of disease symonym: curative, therapeutic, healing (1) medicinal chemistry, (2) traditional medicinal The medicinal properties of this herb have been known to help with various ailments.guessworkn. the act or process of making an estimate or speculation based on incomplete or uncertain information; conjecture or supposition symonym: speculation, conjecture, estimation (1) pure guesswork, (2) rely on guesswork Making decisions based on guesswork can lead to costly mistakes.aerodynamicsn. the study of the motion of air, particularly its interaction with solid objects moving through it, such as aircraft or cars symonym: aeromechanics, aeronautics, airflow (1) aerodynamics of the car allowed it to glide smoothly through the air.bioengineeringn. the application of engineering principles to the design and production of biological systems and products synonym: biomedical engineering, genetic engineering, biotechnology (1) bioengineering field, (2) bioengineering techniques		cause of a disease synonym: examination, autopsy
The doctor performed an excisional breast biopsy.medicinaladj. 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 		
medicinaladj. 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.guessworkn. the act or process of making an estimate or speculation based on incomplete or uncertain information; conjecture or supposition synonym: speculation, conjecture, estimation (1) pure guesswork, (2) rely on guesswork Making decisions based on guesswork can lead to costly mistakes.aerodynamicsn. the study of the motion of air, particularly its interaction with solid objects moving through it, such as aircraft or cars synonym: aeromechanics, aeronautics, airflow (1) aerodynamics of the car allowed it to glide smoothly through the air.bioengineeringn. the application of engineering principles to the design and production of biological systems and products synonym: biomedical engineering, genetic engineering, biotechnology (1) bioengineering field, (2) bioengineering techniques		
synonym: curative, therapeutic, healing(1) medicinal chemistry, (2) traditional medicinal The medicinal properties of this herb have been known to help with various ailments.guessworkn. the act or process of making an estimate or speculation based on incomplete or uncertain information; conjecture or supposition synonym: speculation, conjecture, estimation (1) pure guesswork, (2) rely on guesswork Making decisions based on guesswork can lead to costly mistakes.aerodynamicsn. the study of the motion of air, particularly its interaction with solid objects moving through it, such as aircraft or cars synonym: aeromechanics, aeronautics, airflow (1) aerodynamics research, (2) aerodynamics design The aerodynamics of the car allowed it to glide smoothly through the air.bioengineeringn. the application of engineering principles to the design and production of biological systems and products synonym: biomedical engineering, genetic engineering, biotechnology (1) bioengineering field, (2) bioengineering techniques		The doctor performed an excisional breast biopsy .
The medicinal properties of this herb have been known to help with various ailments.guessworkn. the act or process of making an estimate or speculation based on incomplete or uncertain information; conjecture or supposition synonym: speculation, conjecture, estimation (1) pure guesswork, (2) rely on guesswork Making decisions based on guesswork can lead to costly mistakes.aerodynamicsn. the study of the motion of air, particularly its interaction with solid objects moving through it, such as aircraft or cars synonym: aeromechanics, aeronautics, airflow (1) aerodynamics of the car allowed it to glide smoothly through the air.bioengineeringn. the application of engineering principles to the design and production of biological systems and products synonym: biomedical engineering, genetic engineering, biotechnology (1) bioengineering field, (2) bioengineering techniques	medicinal	-
The medicinal properties of this herb have been known to help with various ailments.guessworkn. the act or process of making an estimate or speculation based on incomplete or uncertain information; conjecture or supposition synonym: speculation, conjecture, estimation (1) pure guesswork, (2) rely on guesswork Making decisions based on guesswork can lead to costly mistakes.aerodynamicsn. the study of the motion of air, particularly its interaction with solid objects moving through it, such as aircraft or cars synonym: aeromechanics, aeronautics, airflow (1) aerodynamics of the car allowed it to glide smoothly through the air.bioengineeringn. the application of engineering principles to the design and production of biological systems and products synonym: biomedical engineering, genetic engineering, biotechnology (1) bioengineering field, (2) bioengineering techniques		(1) medicinal chemistry, (2) traditional medicinal
help with various ailments.guessworkn. the act or process of making an estimate or speculation based on incomplete or uncertain information; conjecture or supposition synonym: speculation, conjecture, estimation (1) pure guesswork, (2) rely on guesswork Making decisions based on guesswork can lead to costly mistakes.aerodynamicsn. the study of the motion of air, particularly its interaction with solid objects moving through it, such as aircraft or cars synonym: aeromechanics, aeronautics, airflow (1) aerodynamics research, (2) aerodynamics design The aerodynamics of the car allowed it to glide smoothly through the air.bioengineeringn. the application of engineering principles to the design and production of biological systems and products synonym: biomedical engineering, genetic engineering, biotechnology (1) bioengineering field, (2) bioengineering techniques		
based on incomplete or uncertain information; conjecture or supposition synonym: speculation, conjecture, estimation (1) pure guesswork, (2) rely on guesswork Making decisions based on guesswork can lead to costly mistakes. aerodynamics n. the study of the motion of air, particularly its interaction with solid objects moving through it, such as aircraft or cars synonym: aeromechanics, aeronautics, airflow (1) aerodynamics research, (2) aerodynamics design The aerodynamics of the car allowed it to glide smoothly through the air. bioengineering n. the application of engineering principles to the design and production of biological systems and products synonym: biomedical engineering, genetic engineering, biotechnology (1) bioengineering field, (2) bioengineering techniques		
 (1) pure guesswork, (2) rely on guesswork Making decisions based on guesswork can lead to costly mistakes. aerodynamics n. the study of the motion of air, particularly its interaction with solid objects moving through it, such as aircraft or cars synonym: aeromechanics, aeronautics, airflow (1) aerodynamics research, (2) aerodynamics design The aerodynamics of the car allowed it to glide smoothly through the air. bioengineering n. the application of engineering principles to the design and production of biological systems and products synonym: biomedical engineering, genetic engineering, biotechnology (1) bioengineering field, (2) bioengineering techniques 	guesswork	based on incomplete or uncertain information;
Making decisions based on guesswork can lead to costly mistakes.aerodynamicsn. the study of the motion of air, particularly its interaction with solid objects moving through it, such as aircraft or cars synonym: aeromechanics, aeronautics, airflow (1) aerodynamics research, (2) aerodynamics design The aerodynamics of the car allowed it to glide smoothly through the air.bioengineeringn. the application of engineering principles to the design and production of biological systems and products synonym: biomedical engineering, genetic engineering, biotechnology (1) bioengineering field, (2) bioengineering techniques		synonym: speculation, conjecture, estimation
mistakes.aerodynamicsn. the study of the motion of air, particularly its interaction with solid objects moving through it, such as aircraft or carssynonym : aeromechanics, aeronautics, airflow(1) aerodynamics research, (2) aerodynamics design The aerodynamics of the car allowed it to glide smoothly through the air.bioengineeringn. the application of engineering principles to the design and production of biological systems and products synonym : biomedical engineering, genetic engineering, biotechnology(1) bioengineering field, (2) bioengineering techniques		(1) pure guesswork, (2) rely on guesswork
 aerodynamics n. the study of the motion of air, particularly its interaction with solid objects moving through it, such as aircraft or cars synonym: aeromechanics, aeronautics, airflow (1) aerodynamics research, (2) aerodynamics design The aerodynamics of the car allowed it to glide smoothly through the air. bioengineering n. the application of engineering principles to the design and production of biological systems and products synonym: biomedical engineering, genetic engineering, biotechnology (1) bioengineering field, (2) bioengineering techniques 		Making decisions based on guesswork can lead to costly
 with solid objects moving through it, such as aircraft or cars synonym: aeromechanics, aeronautics, airflow (1) aerodynamics research, (2) aerodynamics design The aerodynamics of the car allowed it to glide smoothly through the air. bioengineering n. the application of engineering principles to the design and production of biological systems and products synonym: biomedical engineering, genetic engineering, biotechnology (1) bioengineering field, (2) bioengineering techniques 		mistakes.
 (1) aerodynamics research, (2) aerodynamics design The aerodynamics of the car allowed it to glide smoothly through the air. bioengineering n. the application of engineering principles to the design and production of biological systems and products synonym: biomedical engineering, genetic engineering, biotechnology (1) bioengineering field, (2) bioengineering techniques 	aerodynamics	with solid objects moving through it, such as aircraft or
The aerodynamics of the car allowed it to glide smoothly through the air. bioengineering n. the application of engineering principles to the design and production of biological systems and products synonym: biomedical engineering, genetic engineering, biotechnology (1) bioengineering field, (2) bioengineering techniques		synonym: aeromechanics, aeronautics, airflow
 through the air. bioengineering n. the application of engineering principles to the design and production of biological systems and products synonym: biomedical engineering, genetic engineering, biotechnology (1) bioengineering field, (2) bioengineering techniques 		(1) aerodynamics research, (2) aerodynamics design
 bioengineering n. the application of engineering principles to the design and production of biological systems and products synonym: biomedical engineering, genetic engineering, biotechnology (1) bioengineering field, (2) bioengineering techniques 		The aerodynamics of the car allowed it to glide smoothly
and production of biological systems and products synonym: biomedical engineering, genetic engineering, biotechnology (1) bioengineering field, (2) bioengineering techniques		through the air.
	bioengineering	and production of biological systems and products <i>synonym</i> : biomedical engineering, genetic engineering,
The bioengineering lab has state-of-the-art equipment and		(1) bioengineering field, (2) bioengineering techniques
software for analyzing biological systems and designing new solutions.		

Session 2: Spelling

1.	rise nearly thld	adj.	three times as great or as many
2.	biy of bone marrow	n.	the process of removing and examining tissue from the body of the sick person to determine the existence or cause of a disease
3.	northern conion	n.	a group of stars that form a recognizable pattern and have a name; a group of related or similar ideas, things, or people
4.	a bb of jelly	n.	a small amount or drop of a thick liquid or sticky substance
5.	ine life with meaning	v.	to fill something with a particular quality, feeling, or influence; to imbue
6.	ine with spirit	v.	to fill something with a particular quality, feeling, or influence; to imbue
7.	mee a negotiation	v.	to try to bring about an agreement or understanding between people who are in conflict
8.	things at the nale	adj.	on a scale that can be measured in nanometres (= one billionth of a meter); on a very small scale
9.	film reon	n.	a performance or interpretation, often of a piece of music or artwork; a version or translation of something into another language or style; the act of surrendering someone to another country for interrogation or punishment

ANSWERS: 1. threefold, 2. biopsy, 3. constellation, 4. blob, 5. infuse, 6. infuse, 7. mediate, 8. nanoscale, 9. rendition

10.	swl at room temperature	v.	to become larger or more inflated; to become more intense or important
11.	swl a population	<i>V</i> .	to become larger or more inflated; to become more intense or important
12.	pure gurk	n.	the act or process of making an estimate or speculation based on incomplete or uncertain information; conjecture or supposition
13.	3D vol model	n.	a 3D pixel (= a small but volumetric unit) in a three-dimensional space defined by x-, y-, and z- coordinates; a digital image element representing a tiny cube in a 3D picture, with its color and brightness determined by the values assigned to the voxels in its vicinity
14.	pint the problem	v.	to locate or identify the exact position in space or time of something
15.	traditional meal	adj.	of or relating to the treatment or cure of disease
16.	rise nearly hunld	adj.	a hundred times as great or as much
17.	aerics research	n.	the study of the motion of air, particularly its interaction with solid objects moving through it, such as aircraft or cars
18.	cutting-edge bioal	adj.	relating to the application of the natural sciences, especially biology, and physiology, to clinical medicine and healthcare
19.	protein biole	n.	a molecule produced by a living organism, typically composed of carbon, hydrogen, oxygen, nitrogen, and other elements, plays a vital role in various biological processes such as metabolism, energy production, and genetic information transfer

ANSWERS: 10. swell, 11. swell, 12. guesswork, 13. voxel, 14. pinpoint, 15. medicinal, 16. hundredfold, 17. aerodynamics, 18. biomedical, 19. biomolecule

20.	the stars of the Scorpion conion	n.	a group of stars that form a recognizable pattern and have a name; a group of related or similar ideas, things, or people
21.	epsy seizure	n.	a neurological disorder characterized by recurrent seizures or convulsions, which can manifest in a variety of ways and be caused by various factors
22.	ext control	v.	to put forth effort; to put into action; to bring into play
23.	lon grip	ν.	to make something less tight, firm, or fixed; to free from restraint or constraint; to relax
24.	bioal assay	adj.	relating to the application of the natural sciences, especially biology, and physiology, to clinical medicine and healthcare
25.	mee allergic reaction	v.	to try to bring about an agreement or understanding between people who are in conflict
26.	ext influence	v.	to put forth effort; to put into action; to bring into play
27.	aft the economy	v.	to cause pain, suffering, or distress to someone or something
28.	a theoretical concept in neunce	n.	the scientific study of the function, structure, and disorder of the brain and the nervous system
29.	Aler's brain	n.	a neurodegenerative disease that causes memory loss, cognitive decline, and behavioral issues; is the most common cause of dementia in older adults

ANSWERS: 20. constellation, 21. epilepsy, 22. exert, 23. loosen, 24. biomedical, 25. mediate, 26. exert, 27. afflict, 28. neuroscience, 29. Alzheimer

30.	vol engine	n.	a 3D pixel (= a small but volumetric unit) in a three-dimensional space defined by x-, y-, and z- coordinates; a digital image element representing a tiny cube in a 3D picture, with its color and brightness determined by the values assigned to the voxels in its vicinity
31.	nen cell body	n.	a cell that is specialized to carry information within the brain and between the brain and other parts of the body
32.	thId increase	adj.	three times as great or as many
33.	the branch of neunce	n.	the scientific study of the function, structure, and disorder of the brain and the nervous system
34.	biole structure	n.	a molecule produced by a living organism, typically composed of carbon, hydrogen, oxygen, nitrogen, and other elements, plays a vital role in various biological processes such as metabolism, energy production, and genetic information transfer
35.	bioing techniques	n.	the application of engineering principles to the design and production of biological systems and products
36.	excite the nens	n.	a cell that is specialized to carry information within the brain and between the brain and other parts of the body
37.	dn hole	v.	to mend a piece of clothing by sewing over a hole or tear with small, tight stitches

ANSWERS: 30. voxel, 31. neuron, 32. threefold, 33. neuroscience, 34. biomolecule, 35. bioengineering, 36. neuron, 37. darn

38. bioing field	n.	the application of engineering principles to the design and production of biological systems and products
39. glg reviews	adj.	highly enthusiastic; greatly praised
40. glg cheeks	adj.	highly enthusiastic; greatly praised
41. acrylamide mor	n.	a molecule capable of bonding chemically with other molecules to form a polymer, which is the basic building block of larger molecular structures
42. vinyl mor	n.	a molecule capable of bonding chemically with other molecules to form a polymer, which is the basic building block of larger molecular structures
43. liquid biy	n.	the process of removing and examining tissue from the body of the sick person to determine the existence or cause of a disease
44. nale device	adj.	on a scale that can be measured in nanometres (= one billionth of a meter); on a very small scale
45. Aler's risk factors	n.	a neurodegenerative disease that causes memory loss, cognitive decline, and behavioral issues; is the most common cause of dementia in older adults
46. epsy medication	n.	a neurological disorder characterized by recurrent seizures or convulsions, which can manifest in a variety of ways and be caused by various factors

ANSWERS: 38. bioengineering, 39. glowing, 40. glowing, 41. monomer, 42. monomer, 43. biopsy, 44. nanoscale, 45. Alzheimer, 46. epilepsy

47. meal chemistry	adj.	of or relating to the treatment or cure of disease
48. aerics design	n.	the study of the motion of air, particularly its interaction with solid objects moving through it, such as aircraft or cars
49. rely on gurk	n.	the act or process of making an estimate or speculation based on incomplete or uncertain information; conjecture or supposition
50. dn stockings	v.	to mend a piece of clothing by sewing over a hole or tear with small, tight stitches
51. pint signs of manipulation	ν.	to locate or identify the exact position in space or time of something
52. aft with the plague	v.	to cause pain, suffering, or distress to someone or something
53. a big bb of yellow	n.	a small amount or drop of a thick liquid or sticky substance
54. sye circuit	n.	the fact or state of failing to finish an activity and of stopping using, making, or doing it
55. end at a sye	n.	the fact or state of failing to finish an activity and of stopping using, making, or doing it
56. improve hunId	adj.	a hundred times as great or as much
57. reon of judgment	n.	a performance or interpretation, often of a piece of music or artwork; a version or translation of something into another language or style; the act of surrendering someone to another country for interrogation or punishment

ANSWERS: 47. medicinal, 48. aerodynamics, 49. guesswork, 50. darn, 51. pinpoint, 52. afflict, 53. blob, 54. synapse, 55. synapse, 56. hundredfold, 57. rendition

58. lo___n knot

 v. to make something less tight, firm, or fixed; to free from restraint or constraint; to relax

ANSWERS: 58. loosen

Session 3: Fill in the Blanks

- 1. DNA is a complex ______ that contains the genetic information of an organism.
- *n*. a molecule produced by a living organism, typically composed of carbon, hydrogen, oxygen, nitrogen, and other elements, plays a vital role in various biological processes such as metabolism, energy production, and genetic information transfer
- Animals transmit nerve impulses through ______.
- *n.* the fact or state of failing to finish an activity and of stopping using, making, or doing it
- 3. The ______ properties of this herb have been known to help with various ailments.
- adj. of or relating to the treatment or cure of disease
- 4. A _____ of ink fell on the floor.
- *n.* a small amount or drop of a thick liquid or sticky substance
- 5. The singer gave a beautiful ______ of the classic song during the concert.
- *n*. a performance or interpretation, often of a piece of music or artwork; a version or translation of something into another language or style; the act of surrendering someone to another country for interrogation or punishment
- 6. Our body transfers information along each _____ using an electrical impulse.
- *n*. a cell that is specialized to carry information within the brain and between the brain and other parts of the body
- 7. My grandmother has ______ disease requires special care and attention from her caregivers.
- *n.* a neurodegenerative disease that causes memory loss, cognitive decline, and behavioral issues; is the most common cause of dementia in older adults

ANSWERS: 1. biomolecule, 2. synapses, 3. medicinal, 4. blob, 5. rendition, 6. neuron, 7. Alzheimer's

- The doctor performed an excisional breast _____.
- *n.* the process of removing and examining tissue from the body of the sick person to determine the existence or cause of a disease
- 9. The ______ lab has state-of-the-art equipment and software for analyzing biological systems and designing new solutions.
- *n.* the application of engineering principles to the design and production of biological systems and products
- 10. Please ______ the screws on the back panel so we can access the inside of the machine.
- v. to make something less tight, firm, or fixed; to free from restraint or constraint; to relax
- 11. I have to _____ these socks before they become unwearable.
- *v.* to mend a piece of clothing by sewing over a hole or tear with small, tight stitches
- 12. The western sky was _____ pink.
- adj. highly enthusiastic; greatly praised
- 13. His arm was _____ from the insect bite.
- v. to become larger or more inflated; to become more intense or important
- 14. Our university is famous for its professors, who are well-versed in behavioral
- *n.* the scientific study of the function, structure, and disorder of the brain and the nervous system
- 15. The teacher had to ______ a disagreement between two students over a stolen pencil.
- *v.* to try to bring about an agreement or understanding between people who are in conflict

ANSWERS: 8. biopsy, 9. bioengineering, 10. loosen, 11. darn, 12. glowing, 13. swelling, 14. neuroscience, 15. mediate

- 16. The ______ of the car allowed it to glide smoothly through the air.
- *n.* the study of the motion of air, particularly its interaction with solid objects moving through it, such as aircraft or cars
- 17. This process improves the strength of the metal by controlling the ______ lattice structure of the metal.
- *adj.* on a scale that can be measured in nanometres (= one billionth of a meter); on a very small scale
- 18. The development team reported two ______ increases in performance.
- *adj.* a hundred times as great or as much
- 19. Doctors used ______ imaging to create a 3D model of the patient's brain.
- a 3D pixel (= a small but volumetric unit) in a three-dimensional space defined by x-, y-, and z- coordinates; a digital image element representing a tiny cube in a 3D picture, with its color and brightness determined by the values assigned to the voxels in its vicinity
- 20. The disease can _____ both humans and animals.
- *v.* to cause pain, suffering, or distress to someone or something
- 21. The flashing lights at the concert triggered her _____ and caused a seizure.
- *n.* a neurological disorder characterized by recurrent seizures or convulsions, which can manifest in a variety of ways and be caused by various factors
- 22. He _____ himself to lift the heavyweight.
- *v*. to put forth effort; to put into action; to bring into play
- 23. The ______ units are joined together to form a polymer chain.
- *n.* a molecule capable of bonding chemically with other molecules to form a polymer, which is the basic building block of larger molecular structures

ANSWERS: 16. aerodynamics, 17. nanoscale, 18. hundredfold, 19. voxel-based, 20. afflict, 21. epilepsy, 22. exerted, 23. monomer

- 24. Making decisions based on _____ can lead to costly mistakes.
 - *n.* the act or process of making an estimate or speculation based on incomplete or uncertain information; conjecture or supposition
- 25. Navigators still use the Little Bear ______ at sea.
- *n*. a group of stars that form a recognizable pattern and have a name; a group of related or similar ideas, things, or people
- 26. The price of the item was reduced ______ after the sale.
- *adj.* three times as great or as many
- 27. She ______ fresh herbs into the soup for added flavor.
- v. to fill something with a particular quality, feeling, or influence; to imbue
- 28. _____ engineering focuses on developing new medical technologies and innovations to improve patient health outcomes.
- *adj.* relating to the application of the natural sciences, especially biology, and physiology, to clinical medicine and healthcare
- 29. This radar quickly ______ the position of the enemy.
- *v.* to locate or identify the exact position in space or time of something

ANSWERS: 24. guesswork, 25. constellation, 26. threefold, 27. infused, 28. Biomedical, 29. pinpoints