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Vocabulary Builder Reference from...

David Biello: How the compass unlocked the world |

TED Talk

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

pass_unlocked_the_world



All Words

IMPORTANT

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Session 1: Word List

compass

 a navigational instrument for finding directions with a needle that can move easily and that always points to the north; the limit or range of capability

synonym: guideline, borderline, ambit

(1) read a **compass**, (2) sailing without a **compass**The results were beyond our **compass** of imagination.

magnet

an object or substance that can attract certain materials,
 such as iron or steel

synonym: magnetite, lodestone, attracting substance

(1) **magnet** attraction, (2) permanent **magnet**The MRI machine uses **magnets** to produce images of the body's internal organs.

magnetic

adj. having the properties of attracting or repelling certain materials containing iron or steel

synonym: attractive, drawing, hypnotic

(1) magnetic field, (2) a magnetic tape

The magnetic force of the earth keeps our planet spinning.

pole

 one of two antipodal points where the Earth's axis of rotation intersects the Earth's surface; a long, slender, rounded rod, typically of wood or metal, used as a

support or to hang something

synonym: rod, staff, shaft

(1) a fishing **pole**, (2) the plus **pole**

The North **Pole** is the northernmost point on Earth.

needle

 a thin, pointed object typically used for sewing or medical purposes; a metal or plastic instrument used for administering injections or drawing blood

synonym: thorn, spike, pin

(1) **needle** prick, (2) sewing **needle**

The acupuncturist inserted **needles** into specific points on my body to alleviate my pain.

bounce

v. to cause to move up or away after hitting a surface; to spring back

synonym: bound, leap, spring

(1) **bounce** across the floor, (2) **bounce** back from failure They will **bounce** between various emotional states.

magnetism

n. the force that causes attraction or repulsion between magnetic substances; a charismatic or attractive quality that attracts people or causes them to be drawn to someone or something

synonym: attraction, charisma, allure

(1) the **magnetism** of the moon, (2) animal **magnetism** The child was drawn to the **magnetism** of the colorful toy display in the store.

mysterious

adj. difficult to understand, explain, or identify; having an aura of secrecy, intrigue, or puzzlement

synonym: enigmatic, cryptic, puzzling

(1) **mysterious** object, (2) **mysterious** stranger The **mysterious** disappearance of the ship remains unsolved.

physicist

n. a scientist who specializes in the field of physics

(1) talented **physicist**, (2) theoretical **physicist**Einstein was an outstanding and famous **physicist** of the 20th century.

giant

adj. enormous; much bigger or more important than similar items usually are

synonym: big, gigantic, huge

(1) giant trees, (2) giant tech company

The **giant** jets gradually dominate the world's airlines.

planet

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

synonym: earth, world, globe

(1) **planet** like the Earth, (2) save the **planet** Mercury is the closest **planet** to the sun.

roil

v. to stir up or agitate a liquid or substance, causing it to become turbid or muddy; to disturb or unsettle the emotions or mental state of a person or group

synonym: agitate, stir up, turbulate

(1) **roil** the water, (2) **roil** the global economy

The breakup of the famous band **roiled** their fans, leading to disappointment and sadness.

molten

adj. in a liquid state as a result of being heated synonym: melted, liquefied, fused

(1) a molten image, (2) molten lava

The **molten** metal was poured into the mold.

spinning

 the act of rotating rapidly around an axis; in the context of textiles, the process of twisting fibers together to form thread or yarn

synonym: whirling, rotating, spinning wheel

(1) spinning machine, (2) spinning wheel

She took a **spinning** class at the gym to improve her

cardiovascular fitness.

naturally

adv. as might be expected; by natural mannerssynonym: by nature, inherently, intrinsically

(1) **naturally** arising, (2) **naturally** regenerated forest He was **naturally** gifted.

fashion

 a style that is popular at a particular time or place; the state of being popular

synonym: style, manner, fad

(1) go out of **fashion**, (2) new **fashion** trends

That style is no longer in **fashion**.

ladle

 a large, long-handled spoon used for serving liquids, particularly soups or stews

synonym: spoon, scoop, dipper

(1) wooden ladle, (2) ladle gravy

She used a **ladle** to pour soup into the bowls.

brass

 a metal alloy of copper and zinc; a yellowish color; a group of wind instruments made of brass

synonym: metal, alloy, copper

(1) brass section, (2) brass instruments

The **brass** band was performing at the parade.

primarily

adv. mainly

synonym: largely, mainly, mostly

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

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

improve

v. to make or become better

synonym: enhance, ameliorate, enrich

(1) **improve** a process, (2) **improve** the test score We want to **improve** ties between our two countries.

sailor

 a person who works on a ship or other seafaring vessel, often responsible for operating the ship and performing various duties onboard

synonym: seafarer, mariner, navigator

(1) sailor hat, (2) navy sailor

The experienced **sailor** calmly steered the ship through the rough waters.

adopt

v. to choose to follow something; to legally take a child from another family and care for them as if they were one's own

synonym: accept, assume, take on

(1) adopt a child, (2) adopt a bill

The national assembly has adopted the budget.

innovate

- v. to introduce new methods, ideas, or products synonym: bring in, introduce, found
- (1) **innovate** a new method, (2) **innovate** the quality of his life

Companies developing self-driving cars consistently **innovate** the emerging technologies.

essentially

adv. relating to the essential features or concepts of anything *synonym*: fundamentally, basically, virtually

(1) **essentially** correct, (2) become **essentially** same **Essentially**, a society is an organism.

invigoration

n. the act of enlivening, energizing, or revitalizing something, particularly a person's body or mind; the feeling of being refreshed or rejuvenated after engaging in a stimulating activity

synonym: revitalization, stimulation, refreshing

(1) physical **invigoration**, (2) **invigoration** of the soul Yoga is known for its **invigoration** of the mind and body.

Renaissance

 a new growth in activity or enthusiasm in anything, particularly art, literature, or music synonym: rebirth, golden age

(1) artistic **renaissance**, (2) industrial **renaissance**Folk music is now experiencing a **renaissance**.

invention

n. the creation of a new device or process resulting from study and experimentation; the act of inventing

synonym: creation, design, innovation

(1) the **invention** of new techniques, (2) common **invention** Necessity is the mother of **invention**.

telescope

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

microscope

- n. an instrument used to see objects or substances that are too small to be seen with the naked eyesynonym: lens, magnifier, eyepiece
- (1) **microscope** slide, (2) electron **microscope**I used an optical **microscope** to observe the small organisms in the water sample.

relation

n. the way two persons or groups of people feel and act toward one another

synonym: association, linkage, connection

(1) **relation** between cause and effect, (2) **relation** of inclusion

The industrial **relations** laws were passed with little to no alteration.

superpower

 a country or nation that has significant global influence or formidable military, economic, or technological strength; a supernatural ability or force capable of extraordinary feats or feats beyond normal human capabilities

synonym: great power, empire, hegemony

(1) **superpower** country, (2) **superpower** leader

The ability to fly like a bird is often considered a **superpower** in comic books and movies.

exploration

 the activity of searching and finding out about something through a place

synonym: inquiry, quest, investigation

(1) future of space **exploration**, (2) an Arctic **exploration** He called for a careful **exploration** of the consequences.

circumnavigate

v. to travel completely around something, particularly the Earth, by sailing, flying, or other means of transportation; to fully explore or deal with a topic or situation

synonym: navigate, sail, travel around

(1) **circumnavigate** the lake, (2) **circumnavigate** a difficult issue

After months of travel, the sailor finally managed to **circumnavigate** the globe.

globe

the earth or world, mainly used to emphasize its vastness

synonym: Earth, world, sphere

(1) terrestrial **globe**, (2) around the **globe**. His final goal is to sail around the **globe**.

embedded

adj. fixed firmly into the surface of somethingsynonym: ingrained, implanted, inserted

(1) embedded systems, (2) LED- embedded glass
The embedded chip in my credit card allows me to make contactless payments.

functional

 adj. designed for or capable of a particular activity, purpose, or task; practical or ready for use or service

synonym: applicable, practical, usable

(1) field of **functional** medicine, (2) **functional** deafness The mobile phone was still **functional** even after being

dropped.

explore

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

synonym: analyze, delve into, examine

(1) **explore** the world, (2) **explore** our options

The management must **explore** strategies to increase office security.

horizon

 the line at which the earth's surface and the sky appear to meet; the range of interest or activity that can be anticipated

synonym: skyline, view, visible boundary

(1) the event **horizon** of a black hole, (2) business **horizon** As the sun set, the colors of the sky merged with the **horizon**, creating a beautiful orange and pink hue.

reliable

adj. worthy of being relied on; trustworthy synonym: dependable, trustworthy, dedicated

(1) **reliable** access, (2) guarantee **reliable** delivery

Trains are **reliable**, inexpensive, and ideal for long-distance travel.

Session 2: Spelling

1. LED-em___ed glass

2. bo___e back from failure

3. ne___e prick

4. physical inv____ion

5. ma___t attraction

6. ad tabill

7. around the gl e

8. sailing without a co____s

9. br_s section

adj. fixed firmly into the surface of something

v. to cause to move up or away after hitting a surface; to spring back

 a thin, pointed object typically used for sewing or medical purposes; a metal or plastic instrument used for administering injections or drawing blood

n. the act of enlivening, energizing, or revitalizing something, particularly a person's body or mind; the feeling of being refreshed or rejuvenated after engaging in a stimulating activity

n. an object or substance that can attract certain materials, such as iron or steel

v. to choose to follow something; to legally take a child from another family and care for them as if they were one's own

n. the earth or world, mainly used to emphasize its vastness

 a navigational instrument for finding directions with a needle that can move easily and that always points to the north; the limit or range of capability

 a metal alloy of copper and zinc; a yellowish color; a group of wind instruments made of brass

ANSWERS: 1. embedded, 2. bounce, 3. needle, 4. invigoration, 5. magnet, 6. adopt, 7. globe, 8. compass, 9. brass

10. spng wheel	n.	the act of rotating rapidly around an axis; in the context of textiles, the process of twisting fibers together to form thread or yarn
11. business hon	n.	the line at which the earth's surface and the sky appear to meet; the range of interest or activity that can be anticipated
12. a fishing pe	n.	one of two antipodal points where the Earth's axis of rotation intersects the Earth's surface; a long, slender, rounded rod, typically of wood or metal, used as a support or to hang something
13. essly correct	adv.	relating to the essential features or concepts of anything
14. sewing nee	n.	a thin, pointed object typically used for sewing or medical purposes; a metal or plastic instrument used for administering injections or drawing blood
15. git tech company	adj.	enormous; much bigger or more important than similar items usually are
16. exe our options	<i>v</i> .	to travel to or penetrate an area or a country to learn about it; to thoroughly examine a subject or a possibility to learn more about it
17. inte the quality of his life	ν.	to introduce new methods, ideas, or products
18. rele access	adj.	worthy of being relied on; trustworthy
ANSWERS: 10. spinning, 11. horizon, 12. p	oole,	, 13. essentially, 14. needle, 15. giant,

ANSWERS: 10. spinning, 11. horizon, 12. pole, 13. essentially, 14. needle, 15. giant 16. explore, 17. innovate, 18. reliable

19.	talented phst	n.	a scientist who specializes in the field of physics
20.	a maic tape	adj.	having the properties of attracting or repelling certain materials containing iron or steel
21.	future of space expon	n.	the activity of searching and finding out about something through a place
22.	electron micpe	n.	an instrument used to see objects or substances that are too small to be seen with the naked eye
23.	naly regenerated forest	adv.	as might be expected; by natural manners
24.	ime the test score	<i>v</i> .	to make or become better
25.	br_s instruments	n.	a metal alloy of copper and zinc; a yellowish color; a group of wind instruments made of brass
26.	adt a child	<i>v</i> .	to choose to follow something; to legally take a child from another family and care for them as if they were one's own
27.	new fan trends	n.	a style that is popular at a particular time or place; the state of being popular
28.	rI the water	v.	to stir up or agitate a liquid or substance, causing it to become turbid or muddy; to disturb or unsettle the emotions or mental state of a person or group
29.	rl the global economy	v.	to stir up or agitate a liquid or substance, causing it to become turbid or muddy; to disturb or unsettle the emotions or mental state of a person or group

ANSWERS: 19. physicist, 20. magnetic, 21. exploration, 22. microscope, 23. naturally, 24. improve, 25. brass, 26. adopt, 27. fashion, 28. roil, 29. roil

30.	super country	n.	a country or nation that has significant global influence or formidable military, economic, or technological strength; a supernatural ability or force capable of extraordinary feats or feats beyond normal human capabilities
31.	industrial rence	n.	a new growth in activity or enthusiasm in anything, particularly art, literature, or music
32.	invion of the soul	n.	the act of enlivening, energizing, or revitalizing something, particularly a person's body or mind; the feeling of being refreshed or rejuvenated after engaging in a stimulating activity
33.	reon of inclusion	n.	the way two persons or groups of people feel and act toward one another
34.	spng machine	n.	the act of rotating rapidly around an axis; in the context of textiles, the process of twisting fibers together to form thread or yarn
35.	cirate the lake	v.	to travel completely around something, particularly the Earth, by sailing, flying, or other means of transportation; to fully explore or deal with a topic or situation
36.	git trees	adj.	enormous; much bigger or more important than similar items usually are
37.	reon between cause and effect	n.	the way two persons or groups of people feel and act toward one another
38.	the plus pe	n.	one of two antipodal points where the Earth's axis of rotation intersects the Earth's surface; a long, slender, rounded rod, typically of wood or metal, used as a support or to hang something

ANSWERS: 30. superpower, 31. Renaissance, 32. invigoration, 33. relation, 34. spinning, 35. circumnavigate, 36. giant, 37. relation, 38. pole

39.	the masm of the moon	n.	the force that causes attraction or repulsion between magnetic substances; a charismatic or attractive quality that attracts people or causes them to be drawn to someone or something
40.	guarantee rele delivery	adj.	worthy of being relied on; trustworthy
41.	mysus stranger	adj.	difficult to understand, explain, or identify; having an aura of secrecy, intrigue, or puzzlement
42.	read a cos	n.	a navigational instrument for finding directions with a needle that can move easily and that always points to the north; the limit or range of capability
43.	maic field	adj.	having the properties of attracting or repelling certain materials containing iron or steel
44.	the inon of new techniques	n.	the creation of a new device or process resulting from study and experimentation; the act of inventing
45.	plt like the Earth	n.	any of the nine large celestial bodies that circle in the solar system; any celestial body that revolves around a star
46.	theoretical phst	n.	a scientist who specializes in the field of physics
47.	ime a process	<i>v</i> .	to make or become better
48.	permanent mat	n.	an object or substance that can attract certain materials, such as iron or steel

ANSWERS: 39. magnetism, 40. reliable, 41. mysterious, 42. compass, 43. magnetic, 44. invention, 45. planet, 46. physicist, 47. improve, 48. magnet

49.	boe across the floor	<i>v</i> .	to cause to move up or away after hitting a surface; to spring back
50.	become essly same	adv.	relating to the essential features or concepts of anything
51.	funal deafness	adj.	designed for or capable of a particular activity, purpose, or task; practical or ready for use or service
52.	emed systems	adj.	fixed firmly into the surface of something
53.	intended prly for young people	adv.	mainly
54.	cirate a difficult issue	ν.	to travel completely around something, particularly the Earth, by sailing, flying, or other means of transportation; to fully explore or deal with a topic or situation
55.	common inon	n.	the creation of a new device or process resulting from study and experimentation; the act of inventing
56.	mysus object	adj.	difficult to understand, explain, or identify; having an aura of secrecy, intrigue, or puzzlement
57.	prly affect adults	adv.	mainly
58.	exe the world	<i>v</i> .	to travel to or penetrate an area or a country to learn about it; to thoroughly examine a subject or a possibility to learn more about it
59.	a binocular tepe	n.	a device like a tube in shape containing lenses used to magnify and observe distant objects

ANSWERS: 49. bounce, 50. essentially, 51. functional, 52. embedded, 53. primarily, 54. circumnavigate, 55. invention, 56. mysterious, 57. primarily, 58. explore, 59. telescope

60.	artistic rence	n.	a new growth in activity or enthusiasm in anything, particularly art, literature, or music
61.	an Arctic expon	n.	the activity of searching and finding out about something through a place
62.	save the plt	n.	any of the nine large celestial bodies that circle in the solar system; any celestial body that revolves around a star
63.	wooden lae	n.	a large, long-handled spoon used for serving liquids, particularly soups or stews
64.	field of funal medicine	adj.	designed for or capable of a particular activity, purpose, or task; practical or ready for use or service
65.	look through a tepe	n.	a device like a tube in shape containing lenses used to magnify and observe distant objects
66.	sar hat	n.	a person who works on a ship or other seafaring vessel, often responsible for operating the ship and performing various duties onboard
67.	super leader	n.	a country or nation that has significant global influence or formidable military, economic, or technological strength; a supernatural ability or force capable of extraordinary feats or feats beyond normal human capabilities
68.	micpe slide	n.	an instrument used to see objects or substances that are too small to be seen with the naked eye

ANSWERS: 60. Renaissance, 61. exploration, 62. planet, 63. ladle, 64. functional, 65. telescope, 66. sailor, 67. superpower, 68. microscope

69. the event ho____n of a black hole the line at which the earth's surface and n. the sky appear to meet; the range of interest or activity that can be anticipated 70. go out of fa n a style that is popular at a particular n. time or place; the state of being popular a large, long-handled spoon used for 71. la e gravy n. serving liquids, particularly soups or stews 72. terrestrial gl__e the earth or world, mainly used to emphasize its vastness 73. animal ma sm the force that causes attraction or n. repulsion between magnetic substances: a charismatic or attractive quality that attracts people or causes them to be drawn to someone or something a person who works on a ship or other 74. navy sa r n. seafaring vessel, often responsible for operating the ship and performing various duties onboard 75. mo___n lava adj. in a liquid state as a result of being heated 76. in____te a new method to introduce new methods, ideas, or products 77. na____ly arising adv. as might be expected; by natural manners 78. a mo___n image adj. in a liquid state as a result of being heated

ANSWERS: 69. horizon, 70. fashion, 71. ladle, 72. globe, 73. magnetism, 74. sailor, 75. molten, 76. innovate, 77. naturally, 78. molten

Vocab-Builder Ref from	"David Biello: How the	e compass unlocked the world	TED Talk" (39 words)
ANSWERS:			

Session 3: Fill in the Blanks

1.	Companies developing self-driving cars consistently the emerging technologies.
v.	to introduce new methods, ideas, or products
2.	The results were beyond our of imagination.
n.	a navigational instrument for finding directions with a needle that can move easily and that always points to the north; the limit or range of capability
3.	Folk music is now experiencing a
n.	a new growth in activity or enthusiasm in anything, particularly art, literature, or music
4.	This facility has the largest astronomical in the country.
n.	a device like a tube in shape containing lenses used to magnify and observe distant objects
5.	The management must strategies to increase office security.
<i>v</i> .	to travel to or penetrate an area or a country to learn about it; to thoroughly examine a subject or a possibility to learn more about it
6.	The jets gradually dominate the world's airlines.
adj	i. enormous; much bigger or more important than similar items usually are
7.	They will between various emotional states.
v.	to cause to move up or away after hitting a surface; to spring back
8.	He called for a careful of the consequences.
n.	the activity of searching and finding out about something through a place
	SWERS: 1. innovate, 2. compass, 3. renaissance, 4. telescope, 5. explore, 6. nt, 7. bounce, 8. exploration

9.	The industrial laws were passed with little to no alteration.	
n.	the way two persons or groups of people feel and act toward one another	
10.	The national assembly has the budget.	
v.	to choose to follow something; to legally take a child from another family and care for them as if they were one's own	
11.	Yoga is known for its of the mind and body.	
n.	the act of enlivening, energizing, or revitalizing something, particularly a person's body or mind; the feeling of being refreshed or rejuvenated after engaging in a stimulating activity	
12.	I used an optical to observe the small organisms in the water sample.	
n.	an instrument used to see objects or substances that are too small to be seer with the naked eye	า
13.	We want to ties between our two countries.	
ν.	to make or become better	
14.	After months of travel, the sailor finally managed to the globe	€.
v.	to travel completely around something, particularly the Earth, by sailing, flying or other means of transportation; to fully explore or deal with a topic or situation	
15.	The child was drawn to the of the colorful toy display in the store.	
n.	the force that causes attraction or repulsion between magnetic substances; a charismatic or attractive quality that attracts people or causes them to be draw to someone or something	
	Trains are inexpensive, and ideal for long-distance travel. j. worthy of being relied on; trustworthy	
	ISWERS: 9. relations, 10. adopted, 11. invigoration, 12. microscope, 13. improve . circumnavigate, 15. magnetism, 16. reliable,	Э,

17.	The band was performing at the parade.
n.	a metal alloy of copper and zinc; a yellowish color; a group of wind instruments made of brass
18.	The ability to fly like a bird is often considered a in comic books and movies.
n.	a country or nation that has significant global influence or formidable military, economic, or technological strength; a supernatural ability or force capable of extraordinary feats or feats beyond normal human capabilities
19.	She used a to pour soup into the bowls.
n.	a large, long-handled spoon used for serving liquids, particularly soups or stews
20.	The force of the earth keeps our planet spinning.
adj	having the properties of attracting or repelling certain materials containing iron or steel
21.	The experienced calmly steered the ship through the rough waters.
n.	a person who works on a ship or other seafaring vessel, often responsible for operating the ship and performing various duties onboard
22.	The disappearance of the ship remains unsolved.
adj	difficult to understand, explain, or identify; having an aura of secrecy, intrigue, or puzzlement
23.	His final goal is to sail around the
n.	the earth or world, mainly used to emphasize its vastness
24.	The acupuncturist inserted into specific points on my body to alleviate my pain.
n.	a thin, pointed object typically used for sewing or medical purposes; a metal or plastic instrument used for administering injections or drawing blood
	SWERS: 17. brass, 18. superpower, 19. ladle, 20. magnetic, 21. sailor, 22. sterious, 23. globe, 24. needles

25. Necessity is the mother of
n. the creation of a new device or process resulting from study and experimentation; the act of inventing
26. The chip in my credit card allows me to make contactless payments.
adj. fixed firmly into the surface of something
27. The North is the northernmost point on Earth.
one of two antipodal points where the Earth's axis of rotation intersects the Earth's surface; a long, slender, rounded rod, typically of wood or metal, used as a support or to hang something
28. All peaceful cooperation is based on mutual trust.
adv. mainly
29. That style is no longer in
n. a style that is popular at a particular time or place; the state of being popular
30. She took a class at the gym to improve her cardiovascular fitness.
n. the act of rotating rapidly around an axis; in the context of textiles, the process of twisting fibers together to form thread or yarn
31. He was gifted.
adv. as might be expected; by natural manners
32. The MRI machine uses to produce images of the body's internal organs.
n. an object or substance that can attract certain materials, such as iron or steel
ANSWERS: 25. invention, 26. embedded, 27. Pole, 28. primarily, 29. fashion, 30. spinning, 31. naturally, 32. magnets

36. Mercury is the closest to the sun. n. any of the nine large celestial bodies that circle in the solar system; any
celestial body that revolves around a star
37. The breakup of the famous band their fans, leading to disappointment and sadness.
v. to stir up or agitate a liquid or substance, causing it to become turbid or muddy to disturb or unsettle the emotions or mental state of a person or group
38. As the sun set, the colors of the sky merged with the creating a beautiful orange and pink hue.
n. the line at which the earth's surface and the sky appear to meet; the range of interest or activity that can be anticipated
39. Einstein was an outstanding and famous of the 20th century.
n. a scientist who specializes in the field of physics
ANSWERS: 33. molten, 34. functional, 35. Essentially, 36. planet, 37. roiled, 38. horizon, 39. physicist