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Vocabulary Builder Reference from...

Angel Chang: The wildly complex anatomy of a sneaker | TED Talk

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

Advanced Words Only

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Session 1: Word List

sneak

v. to go somewhere, or take someone or something somewhere secretly or stealthily; to steal or do something secretly or stealthily

synonym: creep, tiptoe, smuggle

(1) **sneak** a cigarette, (2) **sneak** out of danger

The children tried to **sneak** out and eat the candy.

pave

v. to cover something with a hard, flat material such as stones, bricks, or concrete, to make it suitable for travel or use

synonym: surface, coat, cover

(1) **pave** a new path, (2) **pave** a smoother road

They **paved** the courtyard with bricks, giving it a more polished appearance.

industrious

adj. hardworking, diligent, and persistent in effort

synonym: diligent, hardworking, assiduous

(1) **industrious** worker, (2) **industrious** student

He was known to be very **industrious** and would often work late into the night.

footprint

n. a mark of a foot, shoe, or animal's foot left on a surface

synonym: footmark, imprint, impression

(1) **footprints** in the snow, (2) the **footprints** of an earlier civilization

We choose transportation that has a smaller carbon **footprint**.

urethane

n. a synthetic organic compound used as a monomer to manufacture flexible and rigid polyurethane foams, adhesives, and coatings

synonym: ethyl carbamate

(1) **urethane** foam, (2) **urethane** sealant

The car's bumper was coated with a **urethane** layer for extra protection.

emit

v. to give off or send out something such as light, heat, sound, gas, etc.

synonym: give off, radiate, expel

(1) **emit** a gamma ray, (2) **emit** air pollution

During the unloading, the container box **emits** a clicking sound.

chromium

n. a metallic element with the symbol Cr and atomic number 24, commonly used in the production of alloys, electroplating, and stainless steel

synonym: Cr

(1) **chromium** mining, (2) **chromium** supplement

Chromium-plated fixtures are popular because of their corrosion resistance.

carcinogenic

adj. capable of causing cancer or promoting tumor growth; cancer-causing

synonym: cancer-causing, cancerous, malignant

(1) **carcinogenic** chemicals, (2) **carcinogenic** air pollution

Long-term exposure to **carcinogenic** materials can result in serious health problems.

vulcanization

n. a process of treating rubber or other materials with sulfur or similar chemicals to improve their strength, durability, elasticity, and resistance to heat and cold

synonym : rubberization, curing

(1) rubber **vulcanization**, (2) **vulcanization** agent

The process of **vulcanization** is essential in creating durable rubber products.

superheat

v. to heat a substance to a temperature higher than its boiling point

synonym : overheat, heat up, scorch

(1) **superheat** the cheese, (2) **superheat** the solution

The metal must be **superheated** before being shaped into the final product.

byproduct

n. a secondary or incidental product produced in the manufacture or synthesis of something else

synonym : side effect, spinoff, outgrowth

(1) toxic **byproducts**, (2) **byproduct** of technology

The **byproduct** of the energy production process is a large amount of carbon dioxide emissions.

disperse

v. to spread out or distribute over a broad region, or to cause something to do so

synonym : dissipate, spread, scatter

(1) **disperse** false information, (2) **disperse** the protesters

Before authorities **dispersed** the protesters, they yelled slogans.

laborer

n. a person who works hard physically, typically doing unskilled or manual labor; a worker or employee who performs physically demanding tasks

synonym : worker, employee, operative

(1) **laborer** job, (2) skilled **laborer**

The construction site hired many **laborers** to help with the heavy lifting.

fume

v. to emit gas, smoke, vapor, or a strong, unpleasant odor; to show anger, irritation, or annoyance in a visible way;
(noun) gas or vapor that is emitted from a substance,

usually as a result of heating or combustion

synonym : smoke, vaporize, emit

(1) **fume** with anger, (2) acrid **fumes**

The angry customer began to **fume** when their order was delayed.

recycle

v. to sort and collect things to process them and produce valuable materials that can be used again

synonym : reclaim, reuse, reprocess

(1) **recycle** the cardboard boxes, (2) **recycle** milk packaging into new paper

We largely **recycle** the circuit board of cell phones because they contain a lot of valuable metals.

incinerate

v. to burn something, especially waste material completely

synonym : burn

(1) **incinerate** waste, (2) the power to **incinerate** nations

For safety reasons, we must completely **incinerate** contaminated protective clothing.

degrade

v. to make something worse, especially in quality; to show or treat someone in a way that makes them seem no value and do not have the respect or reasonable opinion of others

synonym : demean, disgrace, impair

(1) **degrade** his public image, (2) **degrade** environmental quality

You should not **degrade** yourself by allowing them to use you.

streamline

v. to simplify or make more efficient by eliminating unnecessary parts or steps

synonym : simplify, optimize, make more efficient

(1) **streamline** administrative activities, (2) **streamline** workflow

The government plans to **streamline** the tax collection

process to make it more efficient.

Session 2: Spelling

1. sn__k out of danger
v. to go somewhere, or take someone or something somewhere secretly or stealthily; to steal or do something secretly or stealthily
2. fo_____nts in the snow
n. a mark of a foot, shoe, or animal's foot left on a surface
3. acrid f__es
v. to emit gas, smoke, vapor, or a strong, unpleasant odor; to show anger, irritation, or annoyance in a visible way; (noun) gas or vapor that is emitted from a substance, usually as a result of heating or combustion
4. rubber vul_____ion
n. a process of treating rubber or other materials with sulfur or similar chemicals to improve their strength, durability, elasticity, and resistance to heat and cold
5. de_____e environmental quality
v. to make something worse, especially in quality; to show or treat someone in a way that makes them seem no value and do not have the respect or reasonable opinion of others
6. inc_____te waste
v. to burn something, especially waste material completely
7. ch_____um supplement
n. a metallic element with the symbol Cr and atomic number 24, commonly used in the production of alloys, electroplating, and stainless steel

ANSWERS: 1. sneak, 2. footprint, 3. fume, 4. vulcanization, 5. degrade, 6. incinerate, 7. chromium

8. p__e a smoother road *v.* to cover something with a hard, flat material such as stones, bricks, or concrete, to make it suitable for travel or use
9. str_____ne administrative activities *v.* to simplify or make more efficient by eliminating unnecessary parts or steps
10. f__e with anger *v.* to emit gas, smoke, vapor, or a strong, unpleasant odor; to show anger, irritation, or annoyance in a visible way; (noun) gas or vapor that is emitted from a substance, usually as a result of heating or combustion
11. ur_____ne foam *n.* a synthetic organic compound used as a monomer to manufacture flexible and rigid polyurethane foams, adhesives, and coatings
12. su_____at the cheese *v.* to heat a substance to a temperature higher than its boiling point
13. su_____at the solution *v.* to heat a substance to a temperature higher than its boiling point
14. p__e a new path *v.* to cover something with a hard, flat material such as stones, bricks, or concrete, to make it suitable for travel or use
15. la_____r job *n.* a person who works hard physically, typically doing unskilled or manual labor; a worker or employee who performs physically demanding tasks
16. skilled la_____r *n.* a person who works hard physically, typically doing unskilled or manual labor; a worker or employee who performs physically demanding tasks

ANSWERS: 8. pave, 9. streamline, 10. fume, 11. urethane, 12. superheat, 13. superheat, 14. pave, 15. laborer, 16. laborer

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|---|---|
| 17. the fo_____nts of an earlier civilization | <i>n.</i> a mark of a foot, shoe, or animal's foot left on a surface |
| 18. e__t a gamma ray | <i>v.</i> to give off or send out something such as light, heat, sound, gas, etc. |
| 19. car_____nic chemicals | <i>adj.</i> capable of causing cancer or promoting tumor growth; cancer-causing |
| 20. vul_____ion agent | <i>n.</i> a process of treating rubber or other materials with sulfur or similar chemicals to improve their strength, durability, elasticity, and resistance to heat and cold |
| 21. car_____nic air pollution | <i>adj.</i> capable of causing cancer or promoting tumor growth; cancer-causing |
| 22. di_____se the protesters | <i>v.</i> to spread out or distribute over a broad region, or to cause something to do so |
| 23. re_____e the cardboard boxes | <i>v.</i> to sort and collect things to process them and produce valuable materials that can be used again |
| 24. toxic by_____cts | <i>n.</i> a secondary or incidental product produced in the manufacture or synthesis of something else |
| 25. ind_____us student | <i>adj.</i> hardworking, diligent, and persistent in effort |
| 26. ur_____ne sealant | <i>n.</i> a synthetic organic compound used as a monomer to manufacture flexible and rigid polyurethane foams, adhesives, and coatings |
| 27. di_____se false information | <i>v.</i> to spread out or distribute over a broad region, or to cause something to do so |

ANSWERS: 17. footprint, 18. emit, 19. carcinogenic, 20. vulcanization, 21. carcinogenic, 22. disperse, 23. recycle, 24. byproduct, 25. industrious, 26. urethane, 27. disperse

28. ind_____us worker *adj.* hardworking, diligent, and persistent in effort
29. de_____e his public image *v.* to make something worse, especially in quality; to show or treat someone in a way that makes them seem no value and do not have the respect or reasonable opinion of others
30. sn__k a cigarette *v.* to go somewhere, or take someone or something somewhere secretly or stealthily; to steal or do something secretly or stealthily
31. the power to inc_____te nations *v.* to burn something, especially waste material completely
32. str_____ne workflow *v.* to simplify or make more efficient by eliminating unnecessary parts or steps
33. by_____ct of technology *n.* a secondary or incidental product produced in the manufacture or synthesis of something else
34. re_____e milk packaging into new paper *v.* to sort and collect things to process them and produce valuable materials that can be used again
35. e__t air pollution *v.* to give off or send out something such as light, heat, sound, gas, etc.
36. ch_____um mining *n.* a metallic element with the symbol Cr and atomic number 24, commonly used in the production of alloys, electroplating, and stainless steel

ANSWERS: 28. industrious, 29. degrade, 30. sneak, 31. incinerate, 32. streamline, 33. byproduct, 34. recycle, 35. emit, 36. chromium

Session 3: Fill in the Blanks

1. The car's bumper was coated with a _____ layer for extra protection.
 - n.* a synthetic organic compound used as a monomer to manufacture flexible and rigid polyurethane foams, adhesives, and coatings
2. The metal must be _____ before being shaped into the final product.
 - v.* to heat a substance to a temperature higher than its boiling point
3. The process of _____ is essential in creating durable rubber products.
 - n.* a process of treating rubber or other materials with sulfur or similar chemicals to improve their strength, durability, elasticity, and resistance to heat and cold
4. We largely _____ the circuit board of cell phones because they contain a lot of valuable metals.
 - v.* to sort and collect things to process them and produce valuable materials that can be used again
5. The children tried to _____ out and eat the candy.
 - v.* to go somewhere, or take someone or something somewhere secretly or stealthily; to steal or do something secretly or stealthily
6. The construction site hired many _____ to help with the heavy lifting.
 - n.* a person who works hard physically, typically doing unskilled or manual labor; a worker or employee who performs physically demanding tasks
7. They _____ the courtyard with bricks, giving it a more polished appearance.
 - v.* to cover something with a hard, flat material such as stones, bricks, or concrete, to make it suitable for travel or use

ANSWERS: 1. urethane, 2. superheated, 3. vulcanization, 4. recycle, 5. sneak, 6. laborers, 7. paved

8. Long-term exposure to _____ materials can result in serious health problems.
adj. capable of causing cancer or promoting tumor growth; cancer-causing
9. You should not _____ yourself by allowing them to use you.
v. to make something worse, especially in quality; to show or treat someone in a way that makes them seem no value and do not have the respect or reasonable opinion of others
10. _____ fixtures are popular because of their corrosion resistance.
n. a metallic element with the symbol Cr and atomic number 24, commonly used in the production of alloys, electroplating, and stainless steel
11. He was known to be very _____ and would often work late into the night.
adj. hardworking, diligent, and persistent in effort
12. We choose transportation that has a smaller carbon _____.
n. a mark of a foot, shoe, or animal's foot left on a surface
13. The angry customer began to ____ when their order was delayed.
v. to emit gas, smoke, vapor, or a strong, unpleasant odor; to show anger, irritation, or annoyance in a visible way; (noun) gas or vapor that is emitted from a substance, usually as a result of heating or combustion
14. During the unloading, the container box _____ a clicking sound.
v. to give off or send out something such as light, heat, sound, gas, etc.
15. For safety reasons, we must completely _____ contaminated protective clothing.
v. to burn something, especially waste material completely

ANSWERS: 8. carcinogenic, 9. degrade, 10. Chromium-plated, 11. industrious, 12. footprint, 13. fume, 14. emits, 15. incinerate

16. Before authorities _____ the protesters, they yelled slogans.
- v. to spread out or distribute over a broad region, or to cause something to do so
17. The _____ of the energy production process is a large amount of carbon dioxide emissions.
- n. a secondary or incidental product produced in the manufacture or synthesis of something else
18. The government plans to _____ the tax collection process to make it more efficient.
- v. to simplify or make more efficient by eliminating unnecessary parts or steps

ANSWERS: 16. dispersed, 17. byproduct, 18. streamline