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Vocabulary Builder Reference from...

Jacques S. Abramowicz: How does ultrasound work?

| TED Talk

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

Advanced Words Only

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Session 1: Word List

topography

n. the arrangement and physical features of a particular area or region, including its natural and artificial elements and their relative positions and elevations; the study or description of this arrangement and these features

synonym: terrain, landscape, geography

(1) **topography** map, (2) detailed **topography**

The **topography** of the region is rugged, with many hills and valleys.

vibrate

v. to move or cause anything to move fast and in small increments from side to side

synonym: oscillate, convulse, jerk

(1) **vibrate** at a regular frequency, (2) **vibrate** with anger

During the flight, the wings of the plane **vibrate**.

determinant

n. a factor, circumstance, or condition that contributes to the shaping, influencing, or determining of a particular outcome or result

synonym: cause, factor, element

(1) environmental **determinant**, (2) a **determinant** of crop yields

One **determinant** of success is having a positive attitude and

a strong work ethic.

hertz

n. the unit of frequency, equal to one cycle per second, often used to describe the frequency of electromagnetic waves or electronic signals

synonym : frequency, cycles per second

(1) audio **hertz**, (2) tera- **hertz** radiation

The human ear can detect sounds with frequencies ranging from 20 to 20,000 **hertz**.

humming

adj. producing a continuous, low, vibrating sound like that of the bee

synonym : buzzing, droning, vibrating

(1) **humming** sound, (2) **humming** bird

The **humming** of the bees filled the air as she walked through the garden.

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.

nook

n. a small corner, alcove, or recess, especially one in a room or garden providing a seat or space for quiet

synonym : niche, corner, alcove

(1) every **nook** and cranny, (2) breakfast **nook**

The kitchen **nook** was perfect for coffee and chatting with friends.

cranny

n. a small, narrow opening or crack, especially in a wall or rock

synonym : crevice, nook, niche

(1) a **cranny** in the corner, (2) look in every nook and **cranny**

The mouse squeezed into the tiniest **cranny** of the wall to avoid being caught by the cat.

nuance

n. a subtle or slight degree of difference in appearance, meaning, sound, someone's feeling, etc.

synonym : shading, refinement, subtlety

(1) rich in **nuance**, (2) subtle cultural **nuance**

The painter has tried to express every **nuance** of the woman's expression in his work.

gallbladder

n. a small, pear-shaped organ located near the liver that stores and releases bile into the small intestine to aid in digestion

synonym : cholecyst

(1) **gallbladder** surgery, (2) **gallbladder** disease

Eating a fatty meal can trigger **gallbladder** pain in some people.

clot

n. a thick mass or lump of coagulated liquid, especially blood; a group of people or things that form an obstructive, unsympathetic, or resistant force

synonym : clump, coagulation, thrombus

(1) blood **clot**, (2) **clot** prevention

The **clot** in the blood vessel required immediate medical attention.

fetus

n. an unborn or unhatched animal in the later stages of development showing the main recognizable features of the mature animal

(1) development of the **fetus**, (2) an aborted **fetus**

The female vagina is elastic enough to allow the passage of a **fetus**.

airtight

adj. tightly sealed or enclosed, with no spaces through which air or other substances can pass; completely secure or reliable

synonym : hermetic, watertight

(1) **airtight** container, (2) **airtight** seal

The container was **airtight**, keeping the food fresh for longer.

wand

n. a slender rod or stick, especially one used for magic or divination; a rod or staff carried by certain officials as a symbol of authority

synonym: rod, stick, staff

(1) magic **wand**, (2) security **wand**

The magician waved his **wand**, and a rabbit appeared from the hat.

amnion

n. the innermost sac that surrounds and protects the fetus during pregnancy, filled with amniotic fluid which cushions and protects the fetus

synonym: fetal membrane

(1) **amnion** membrane, (2) rupture of the **amnion**

The **amnion** fluid sample was sent for genetic testing to determine chromosomal abnormalities.

penetrate

v. to pass into or through something, often by overcoming resistance

synonym: pierce, stab, go through

(1) **penetrate** a cell, (2) **penetrate** quickly into the skin

Western ideology slowly **penetrates** through the eastern countries.

cascade

n. a small waterfall or series of small waterfalls; a succession of stages or operations or processes or units

synonym: waterfall, watercourse, step

(1) **cascade** connection, (2) transistor **cascade**

The **cascade** of waterfalls in the national park was a breathtaking sight.

visualize

v. to form a mental image or concept of something; to make something visible

synonym: imagine, picture, envision

(1) **visualize** data, (2) **visualize** flying through space

She tried to **visualize** the layout of the new house in her mind.

deviate

v. to depart from an established course or plan; to change direction or take a different route or approach

synonym: stray, diverge, veer

(1) **deviate** from the norm, (2) **deviate** from the plan

It's important not to **deviate** from the established safety procedures.

natal

adj. relating to birth or the place of one's birth; connected with the beginning or origin of something

synonym: birth, nativity, born

(1) **natal** chart, (2) **natal** clinic

The mother-to-be attended **natal** classes to prepare for the birth of her first child.

Session 2: Spelling

- | | |
|----------------------------------|--|
| 1. detailed top_____hy | <i>n.</i> the arrangement and physical features of a particular area or region, including its natural and artificial elements and their relative positions and elevations; the study or description of this arrangement and these features |
| 2. a cr___y in the corner | <i>n.</i> a small, narrow opening or crack, especially in a wall or rock |
| 3. an aborted fe__s | <i>n.</i> an unborn or unhatched animal in the later stages of development showing the main recognizable features of the mature animal |
| 4. look in every nook and cr___y | <i>n.</i> a small, narrow opening or crack, especially in a wall or rock |
| 5. environmental det_____nt | <i>n.</i> a factor, circumstance, or condition that contributes to the shaping, influencing, or determining of a particular outcome or result |
| 6. rupture of the am___n | <i>n.</i> the innermost sac that surrounds and protects the fetus during pregnancy, filled with amniotic fluid which cushions and protects the fetus |
| 7. vi_____e with anger | <i>v.</i> to move or cause anything to move fast and in small increments from side to side |
| 8. hu_____g sound | <i>adj.</i> producing a continuous, low, vibrating sound like that of the bee |

ANSWERS: 1. topography, 2. cranny, 3. fetus, 4. cranny, 5. determinant, 6. amnion, 7. vibrate, 8. humming

9. magic w__d *n.* a slender rod or stick, especially one used for magic or divination; a rod or staff carried by certain officials as a symbol of authority
10. every n__k and cranny *n.* a small corner, alcove, or recess, especially one in a room or garden providing a seat or space for quiet
11. vi_____ze flying through space *v.* to form a mental image or concept of something; to make something visible
12. blood c__t *n.* a thick mass or lump of coagulated liquid, especially blood; a group of people or things that form an obstructive, unsympathetic, or resistant force
13. de_____e from the norm *v.* to depart from an established course or plan; to change direction or take a different route or approach
14. top_____hy map *n.* the arrangement and physical features of a particular area or region, including its natural and artificial elements and their relative positions and elevations; the study or description of this arrangement and these features
15. pe_____te quickly into the skin *v.* to pass into or through something, often by overcoming resistance
16. c__t prevention *n.* a thick mass or lump of coagulated liquid, especially blood; a group of people or things that form an obstructive, unsympathetic, or resistant force

ANSWERS: 9. wand, 10. nook, 11. visualize, 12. clot, 13. deviate, 14. topography, 15. penetrate, 16. clot

17. de____e from the plan *v.* to depart from an established course or plan; to change direction or take a different route or approach
18. vi____e at a regular frequency *v.* to move or cause anything to move fast and in small increments from side to side
19. breakfast n__k *n.* a small corner, alcove, or recess, especially one in a room or garden providing a seat or space for quiet
20. a det_____nt of crop yields *n.* a factor, circumstance, or condition that contributes to the shaping, influencing, or determining of a particular outcome or result
21. security w__d *n.* a slender rod or stick, especially one used for magic or divination; a rod or staff carried by certain officials as a symbol of authority
22. gal_____er surgery *n.* a small, pear-shaped organ located near the liver that stores and releases bile into the small intestine to aid in digestion
23. audio he__z *n.* the unit of frequency, equal to one cycle per second, often used to describe the frequency of electromagnetic waves or electronic signals
24. tera-he__z radiation *n.* the unit of frequency, equal to one cycle per second, often used to describe the frequency of electromagnetic waves or electronic signals
25. gal_____er disease *n.* a small, pear-shaped organ located near the liver that stores and releases bile into the small intestine to aid in digestion

ANSWERS: 17. deviate, 18. vibrate, 19. nook, 20. determinant, 21. wand, 22. gallbladder, 23. hertz, 24. hertz, 25. gallbladder

26. e__t air pollution *v.* to give off or send out something such as light, heat, sound, gas, etc.
27. subtle cultural nu___e *n.* a subtle or slight degree of difference in appearance, meaning, sound, someone's feeling, etc.
28. na__l clinic *adj.* relating to birth or the place of one's birth; connected with the beginning or origin of something
29. na__l chart *adj.* relating to birth or the place of one's birth; connected with the beginning or origin of something
30. vi_____ze data *v.* to form a mental image or concept of something; to make something visible
31. ai_____ht seal *adj.* tightly sealed or enclosed, with no spaces through which air or other substances can pass; completely secure or reliable
32. pe_____te a cell *v.* to pass into or through something, often by overcoming resistance
33. e__t a gamma ray *v.* to give off or send out something such as light, heat, sound, gas, etc.
34. development of the fe__s *n.* an unborn or unhatched animal in the later stages of development showing the main recognizable features of the mature animal
35. am___n membrane *n.* the innermost sac that surrounds and protects the fetus during pregnancy, filled with amniotic fluid which cushions and protects the fetus

ANSWERS: 26. emit, 27. nuance, 28. natal, 29. natal, 30. visualize, 31. airtight, 32. penetrate, 33. emit, 34. fetus, 35. amnion

36. ca____e connection *n.* a small waterfall or series of small waterfalls; a succession of stages or operations or processes or units
37. rich in nu____e *n.* a subtle or slight degree of difference in appearance, meaning, sound, someone's feeling, etc.
38. ai____ht container *adj.* tightly sealed or enclosed, with no spaces through which air or other substances can pass; completely secure or reliable
39. transistor ca____e *n.* a small waterfall or series of small waterfalls; a succession of stages or operations or processes or units
40. hu____g bird *adj.* producing a continuous, low, vibrating sound like that of the bee

ANSWERS: 36. cascade, 37. nuance, 38. airtight, 39. cascade, 40. humming

Session 3: Fill in the Blanks

1. The mother-to-be attended _____ classes to prepare for the birth of her first child.
adj. relating to birth or the place of one's birth; connected with the beginning or origin of something
2. The kitchen _____ was perfect for coffee and chatting with friends.
n. a small corner, alcove, or recess, especially one in a room or garden providing a seat or space for quiet
3. The _____ of waterfalls in the national park was a breathtaking sight.
n. a small waterfall or series of small waterfalls; a succession of stages or operations or processes or units
4. The container was _____ keeping the food fresh for longer.
adj. tightly sealed or enclosed, with no spaces through which air or other substances can pass; completely secure or reliable
5. The painter has tried to express every _____ of the woman's expression in his work.
n. a subtle or slight degree of difference in appearance, meaning, sound, someone's feeling, etc.
6. Eating a fatty meal can trigger _____ pain in some people.
n. a small, pear-shaped organ located near the liver that stores and releases bile into the small intestine to aid in digestion
7. The female vagina is elastic enough to allow the passage of a _____.
n. an unborn or unhatched animal in the later stages of development showing the main recognizable features of the mature animal

ANSWERS: 1. natal, 2. nook, 3. cascade, 4. airtight, 5. nuance, 6. gallbladder, 7. fetus

8. The _____ in the blood vessel required immediate medical attention.
- n.* a thick mass or lump of coagulated liquid, especially blood; a group of people or things that form an obstructive, unsympathetic, or resistant force
9. Western ideology slowly _____ through the eastern countries.
- v.* to pass into or through something, often by overcoming resistance
10. During the unloading, the container box _____ a clicking sound.
- v.* to give off or send out something such as light, heat, sound, gas, etc.
11. The magician waved his _____ and a rabbit appeared from the hat.
- n.* a slender rod or stick, especially one used for magic or divination; a rod or staff carried by certain officials as a symbol of authority
12. The _____ fluid sample was sent for genetic testing to determine chromosomal abnormalities.
- n.* the innermost sac that surrounds and protects the fetus during pregnancy, filled with amniotic fluid which cushions and protects the fetus
13. The human ear can detect sounds with frequencies ranging from 20 to 20,000 _____.
- n.* the unit of frequency, equal to one cycle per second, often used to describe the frequency of electromagnetic waves or electronic signals
14. She tried to _____ the layout of the new house in her mind.
- v.* to form a mental image or concept of something; to make something visible
15. During the flight, the wings of the plane _____.
- v.* to move or cause anything to move fast and in small increments from side to side

ANSWERS: 8. clot, 9. penetrates, 10. emits, 11. wand, 12. amnion, 13. hertz, 14. visualize, 15. vibrate

16. One _____ of success is having a positive attitude and a strong work ethic.
- n.* a factor, circumstance, or condition that contributes to the shaping, influencing, or determining of a particular outcome or result
17. The _____ of the region is rugged, with many hills and valleys.
- n.* the arrangement and physical features of a particular area or region, including its natural and artificial elements and their relative positions and elevations; the study or description of this arrangement and these features
18. The _____ of the bees filled the air as she walked through the garden.
- adj.* producing a continuous, low, vibrating sound like that of the bee
19. The mouse squeezed into the tiniest _____ of the wall to avoid being caught by the cat.
- n.* a small, narrow opening or crack, especially in a wall or rock
20. It's important not to _____ from the established safety procedures.
- v.* to depart from an established course or plan; to change direction or take a different route or approach

ANSWERS: 16. determinant, 17. topography, 18. humming, 19. cranny, 20. deviate