

Research and Scientific Words Quiz

Practice these important research and scientific words (studied in issues 9 and 10 of English Detective) by choosing the right word in each of the following three exercises.

Odd One Out (Find the Antonym)

This is actually a group game, but you can play it by yourself. The rules are to decide which one of four words is odd or different from the others and explain why. (Sometimes there are several possible ways to decide which three belong together. For example, for strawberry, lemon, apple, and sweet potato, you could say lemon is the odd one because the others are sweet. Someone else might choose sweet potato, because the others are fruits. It's valuable English practice to think about possible categories.)

For this quiz, the game is simple. Each group has three synonyms with similar meanings and one antonym (opposite or close to opposite of the others.) **Choose the antonym** as the odd one.

1. acknowledge, confess, deny, admit
2. notice, focus on, pay attention to, ignore
3. indicate, conceal, show, point out
4. instruct, teach, learn, educate
5. presume, verify, investigate, examine
6. criticize, promote, oppose, undermine
7. quote, paraphrase, reword, restate
8. restore, destroy, rebuild, update
9. undergo, avoid, miss, escape
10. knowledgeable, informed, aware, ignorant
11. participating, engaged, observing, involved
12. adult, childish, full-grown, mature
13. voluntary, optional, required, elective
14. odd, normal, unusual, strange
15. random, chance, planned, unpredictable
16. temporary, permanent, lasting, enduring
17. primary, secondary, principal, first
18. relevant, connected, topical, unrelated
19. subsequently, initially, previously, beforehand
20. outcome, result, input, product

Choose the best answer

1. A mathematical expression showing that two quantities are equal is an
 - A. equality
 - B. equivalent
 - C. equation
 - D. equilibrium
2. Two similar things that can replace each other if necessary are
 - A. equal
 - B. equivalent
 - C. equine
 - D. equilateral
3. Many organisms have sensors that recognize imbalance and trigger _____ feedback mechanisms to restore equilibrium.
 - A. voluntary
 - B. subsequent
 - C. random
 - D. automatic
4. When a popular university professor was fired for no obvious reason, he consulted a lawyer. He claimed the firing was an _____ action motivated by jealousy.
 - A. intrinsic
 - B. automatic
 - C. arbitrary
 - D. initial
5. Among some groups, an expensive car is a _____ symbol; among others popularity, intelligence, or unusual talent are more impressive.
 - A. voluntary
 - B. status
 - C. primary
 - D. relevant

Fill in the Blanks with the Scientific Words Above each Section

implications, outcomes, predictions, whereby

Some of the most famous experiments studying willpower used marshmallows. A researcher would offer a child a marshmallow, and then tell the child that he or she would get a second marshmallow as well by waiting until the researcher returned before eating it. The marshmallow was just a means _____ scientists could measure the child's self-control.

The marshmallow studies were especially interesting because the researchers followed a large number of participants' lives for years after the marshmallow test. This enabled the scientists to collect enough data to draw some conclusions. The _____ of these experiments matched some peoples' _____; children who displayed the most willpower during the experiment turned out to be successful more often as adults than the children who ate the marshmallows right away. The _____ of the study are that finding ways to increase willpower will provide long-term benefits both to individuals and to society.

acknowledge, commitments, indicated, rational, validity

Some critics of these experiments have _____ a problem with them, though. The test measures not only self-control, but also trust. Eating the marshmallow immediately is a _____ response for children from backgrounds in which the adults around them often do not keep their _____ or are unable to meet their needs. They may fear that if they wait, they will end up losing BOTH marshmallows. Such researchers often _____ the value of willpower but question the _____ of this way to test for it, especially among "disadvantaged" children who may have valid reasons to distrust the adults in their lives.

arbitrary, formulas, grade, participation, principles

Some instructors have complicated _____ for deciding on the _____ they will give each student. They may give 10% credit for class _____, 15% for homework completion, 25% for a research paper, 25% for periodic quizzes and tests, and 25% for the final exam. In the U.S. students expect grading to be based on fixed _____, not on a teacher's personal feelings about a student or some other _____ standard.

affected, framework, major, principle, register, voluntary

The right to vote is a cornerstone in the _____ of democracy. The _____ that the people who will be _____ by laws should have a voice in choosing the lawmakers is fundamental. When an American turns 18, he or she can _____ to vote. Voting is _____ in the U.S., but it is one of the _____ ways ordinary Americans can make their opinions heard in local and national affairs.

Answers

Odd One Out (the odd one will be listed first; then the original choices)

1. Deny-- acknowledge, confess, deny, admit
2. Ignore-- notice, focus on, pay attention to, ignore
3. Conceal-- indicate, conceal, show, point out
4. Learn-- instruct, teach, learn, educate
5. Presume-- presume, verify, investigate, examine
6. Promote-- criticize, promote, oppose, undermine
7. Quote-- quote, paraphrase, reword, restate
8. Destroy-- restore, destroy, rebuild, update
9. Undergo-- undergo, avoid, miss, escape
10. Ignorant-- knowledgeable, informed, aware, ignorant
11. Observing-- participating, engaged, observing, involved
12. Childish-- adult, childish, full-grown, mature
13. Required-- voluntary, optional, required, elective
14. Normal-- odd, normal, unusual, strange
15. Planned-- random, chance, planned, unpredictable
16. Temporary-- temporary, permanent, lasting, enduring
17. Secondary-- primary, secondary, principal, first
18. Unrelated-- relevant, connected, topical, unrelated
19. Subsequently-- subsequently, initially, previously, beforehand
20. 20 Input-- outcome, result, input, product

Answers: Choose the best answer

1. A mathematical expression showing that two quantities are equal is an
C. equation
2. Two similar things that can replace each other if necessary are
B. equivalent
3. Many organisms have sensors that recognize imbalance and trigger _____ feedback mechanisms to restore equilibrium.
D. automatic
4. When a popular university professor was fired for no obvious reason, he consulted a lawyer. He claimed the firing was an _____ action motivated by jealousy.
C. arbitrary
5. Among some groups, an expensive car is a _____ symbol; among others popularity, intelligence, or unusual talent are more impressive.
B. status

Fill in the Blanks with the Scientific Words Above each Section

implications, outcomes, predictions, whereby

Some of the most famous experiments studying willpower used marshmallows. A researcher would offer a child a marshmallow, and then tell the child that he or she would get a second marshmallow as well by waiting until the researcher returned before eating it. The marshmallow was just a means whereby scientists could measure the child's self-control.

The marshmallow studies were especially interesting because the researchers followed a large number of participants' lives for years after the marshmallow test. This enabled the scientists to collect enough data to draw some conclusions. The outcome of these experiments matched some peoples' predictions: children who displayed the most willpower during the experiment turned out to be successful more often as adults than the children who ate the marshmallows right away. The implications of the study are that finding ways to increase willpower will provide long-term benefits both to individuals and to society.

acknowledge, commitments, indicated, rational, validity

Some critics of these experiments have indicated a problem with them, though. The test measures not only self-control, but also trust. Eating the marshmallow immediately is a rational response for children from backgrounds in which the adults around them often do not keep their commitments or are unable to meet their needs. They may fear that if they wait, they will end up losing BOTH marshmallows. Such researchers often acknowledge the value of willpower but question the validity of this way to test for it, especially among “disadvantaged” children who may have learned to distrust the adults in their lives.

arbitrary, formulas, grade, participation, principles

Some instructors have complicated formulas for deciding on the grade they will give each student. They may give 10% credit for class participation, 15% for homework completion, 25% for a research paper, 25% for periodic quizzes and tests, and 25% for the final exam. In the U.S. students expect grading to be based on fixed principles, not on a teacher’s personal feelings about a student or some other arbitrary standard.

affected, framework, major, principle, register, voluntary

The right to vote is a cornerstone in the framework of democracy. The principle that the people who will be affected by laws should have a voice in choosing the lawmakers is fundamental. When an American turns 18, he or she can register to vote. Voting is voluntary in the U.S., but it is one of the major ways ordinary Americans can make their opinions heard in local and national affairs.