

Science Skills -7

Finding Constants

As you know, whatever can change or vary in an experiment is called a variable. There are many variables in an experiment. To have a valid experiment one variable must be tested and one must respond. All the other variables must not be changed. These variables that are not changed are called constants.

Directions: Identify two constants in each experiment.

Victoria wanted to test how the mass of a paper airplane affected the distance it would fly. She folded the paper airplane and tested it. She flew the airplane four more times. Each time she flew it she added a paper clip to the nose. She measured how far the plane flew each time.

1. _____
2. _____

Eriberto wanted to test a group of students to see if their speed working math problems would be different with or without calculators. He gave the first group calculators and the other group did not have calculators. He timed how long it took them to work 10 math problems.

3. _____
4. _____

Cristina wanted to test students puzzle assembly time to determine if age had any effect on how fast the students could put the puzzles together. She gave them all a 100-piece puzzle. She tests students that were 6, 10, 14 and 18 years old. She then timed how long it took for each student to put the puzzle together.

5. _____
6. _____

Derrick wanted to find out if different tire treads affected the braking distance of a car. He used his father's car and got the tire store to let him borrow three different types of tires. Each set of tires has a different tread design. He measured how far it took the car to stop after going 20 mph.

7. _____
8. _____

Ana wanted to find out which brand of pizza students liked the most. She let students taste three different pizzas - Domino's, Papa John's and Pizza Hut. She counted the number of votes for each brand of pizza.

9. _____

10. _____

Jesse wanted to find out what types of metal objects he could get to float on water. He tried a paper clip, a thumbtack, a penny and a razor blade.

11. _____

12. _____

Alicia wanted to find out if goldfish liked a certain type of food. She bought Hart's, Nabisco and Turner's Goldfish food. Every day she put 20 flakes of the food in the fish tank and counted what was left after an hour.

13. _____

14. _____

Marcus wanted to find out which type of seed grew the fastest. He placed 3 radish seeds, 3 lima bean seeds and 3 navy bean seeds in a paper towel and kept it moist for a week. At the end of the week he measured the length of each plant.

15. _____

16. _____

Laura wanted to find out which brand of pencil lasted the longest. She bought American, Elmer's and Office Depot pencils. She used each pencil for a day and measured how long it was when she got home.

17. _____

18. _____

Able wanted to find out what type of chips students liked the best. During lunch he stood by the snack bar and counted the different types of chips students bought.

19. _____

20. _____