

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Scientific Method Worksheet

*Put the following steps of the scientific method in the proper order.*

\_\_\_\_\_ Research the problem

\_\_\_\_\_ Observe and record

\_\_\_\_\_ Make a hypothesis

\_\_\_\_\_ Identify the problem

\_\_\_\_\_ Arrive at a conclusion

\_\_\_\_\_ Test the hypothesis



*Match the following terms with the correct definition.*

\_\_\_\_\_ 1. Hypothesis

A. Organized process to test a hypothesis

\_\_\_\_\_ 2. Control

B. An educated guess about the solution to a problem

\_\_\_\_\_ 3. Dependent Variable

C. Observations & measurements recorded

\_\_\_\_\_ 4. Experiment

D. A judgment based on the results of an experiment

\_\_\_\_\_ 5. Conclusion

E. Used to show that the result of an experiment is really due to the condition being tested

\_\_\_\_\_ 6. Data

F. The factor that is manipulated during an experiment

\_\_\_\_\_ 7. Independent Variable

G. The response that is measured in an experiment



## **CAN YOU SPOT THE SCIENTIFIC METHOD?**

*Each sentence below describes a step of the scientific method. Match each sentence with a step of the scientific method listed below.*

A. Recognize a problem

B. Form a hypothesis

C. Test the hypothesis with an experiment

D. Draw conclusions

\_\_\_\_\_ 8. Stephen predicted that seeds would start to grow faster if an electric current traveled through the soil in which they were planted.

\_\_\_\_\_ 9. Susan said, "If I fertilize my geranium plants, they will blossom."

\_\_\_\_\_ 10. Jonathan's data showed that household cockroaches moved away from raw cucumber slices.

\_\_\_\_\_ 11. Rene grew bacteria from the mouth on special plates in the laboratory. She placed drops of different mouthwashes on bacteria on each plate.

\_\_\_\_\_ 12. Kathy used a survey to determine how many of her classmates were left-handed and how many were right-handed.

\_\_\_\_\_ 13. Dana wanted to know how synthetic fibers were different from natural fibers.

\_\_\_\_\_ 14. Jose saw bats catching insects after dark. He asked, "How do bats find the insects in the dark?"

\_\_\_\_\_ 15. Justin wondered if dyes could be taken out of plant leaves, flowers, and stems.

\_\_\_\_\_ 16. Arjulia soaked six different kinds of seeds in water for 24 hours. Then she planted the seeds in soil at a depth of 1 cm. She used the same amount of water, light, and heat for each kind of seed.

\_\_\_\_\_ 17. Bob read about growing plants in water. He wanted to know how plants could grow without soil.

\_\_\_\_\_ 18. Kevin said, "If I grow five seedlings in red light. I think the plants will grow faster than the five plants grown in white light."

\_\_\_\_\_ 19. Angela's experiment proved that earthworms move away from light.

\_\_\_\_\_ 20. Scott said, "If acid rain affects plants in a particular lake, it might affect small animals such as crayfish, that live in the same water."

\_\_\_\_\_ 21. Michael fed different diets to three groups of guinea pigs. His experiment showed that guinea pigs need vitamin C and protein in their diets.

\_\_\_\_\_ 22. Kim's experiment showed that chicken egg shells were stronger when she gave the hen food to which extra calcium had been added.