

Conducting Scientific Investigations I

Review

Explain each step of the scientific method in your own words. Be sure your answers are in complete sentences.

1. Identify a problem and gather background information _____

2. Form a hypothesis _____

3. Design and carry out an experiment _____

4. Record and analyze data _____

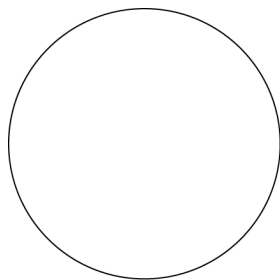
5. State a conclusion _____

6. Write a report _____

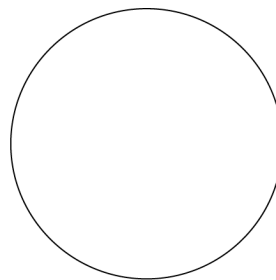
Skill Challenge

Skill: graphing

Complete the following.



Circle A



Circle B

1. Use circle A to make a circle graph that shows what you do with your time during the 24 hours of a weekday. Color each section of your circle graph a different color. Use a key to identify what each color represents.
2. Use circle B to make a circle graph that shows what you do with your time during the 48 hours of the weekend. Color each section of your circle graph a different color. Use a key to identify what each color represents.

Answer Key

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Accept all logical responses. Possible answers:

1. Ask a question that can be answered by the scientific method. Use sources such as magazines, books, or the Internet to gather information about your question
2. Develop a possible answer to the question. This answer, called a hypothesis, should account for given information or past experiments.
3. Design an experiment to test the hypothesis. The experiment should take all variables into account.
4. Write down all observations and measurements while performing the experiment, then analyze the data.
5. Develop a statement that sums up what you have learned from the experiment. The conclusion should explain whether the hypothesis was correct.
6. A written lab report explains what happened in an experiment. The report should include enough information for others to duplicate the experiment.

Skill Challenge

Students' graphs will vary. Check students' graphs and keys for logic and accuracy.