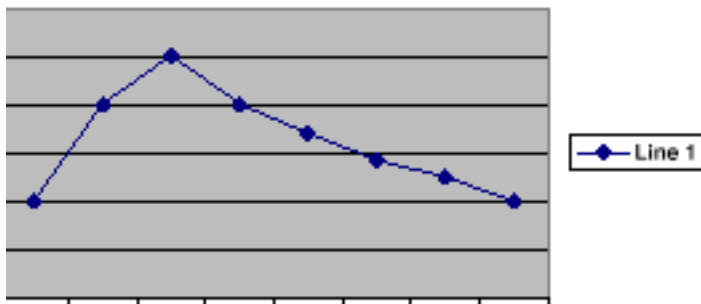


## Hot Rocks

Directions: Circle the letter of the best answer to the following questions.

1. Which of the following is the best hypothesis for the Hot Rocks Experiment?
  - A. Red rocks will reflect the most heat.
  - B. Black rocks will absorb more heat than white rocks or brown rocks.
  - C. Green rocks under direct sunlight will begin to degrade.
  - D. White rocks under a given amount of heat and atmospheric pressure will change to an igneous rock.
2. Which of the following would make the best control in the Hot Rocks Experiment?
  - A. Thermometer
  - B. Size of the lid
  - C. Types of Rock
  - D. Empty container
3. The amount of rocks, the size of the container, the type of thermometers, the time of day, and the time of the year are all examples of:
  - A. Manipulated Variables
  - B. Dependent Variables
  - C. Responding Variables
  - D. Constant Controls

Use the graph below to answer question #4.



4. By relating the data acquired in this experiment to the x axis of the graph above, the x axis could be titled:
  - A. Time
  - B. Years
  - C. Colors of rocks
  - D. Temperature

Use the charts below to Answer Questions 5 - 9.

**Part 1--Temperature of Rocks in the Sun**

Length of Time	Black	Brown	White
0	20°	20°	20°
1 hour	24°	22°	21°
2 hours	28°	25°	21.5°

**Part 2--Temperature of Rocks in the Shade**

Length of Time	Black	Brown	White
0	28°	25°	21.5°
1 hour	26°	22°	20°
2 hours	24°	21°	19°

5. Which rocks gained heat more quickly in Part 1?
  - a. black
  - b. brown
  - c. white
  - d. both black and white
  
6. Which rock gained the least heat?
  - a. black
  - b. brown
  - c. white
  - d. both black and white
  
7. If a yellow rock were added to the experiment in Part 1, what could be expected about its heat gain?
  - a. It would gain more heat than black rocks.
  - b. It would gain more heat than white rocks.
  - c. It would gain more heat than brown rocks.
  - d. It would not gain heat.
  
8. What is expected to happen to amount of heat in Part 2?
  - a. increased
  - b. decreased
  - c. stayed the same
  - d. increased and then decreased
  
9. What piece of information is missing on this data table?
  - A. Time
  - B. Degrees
  - C. Samples
  - D. Title

10. Select one of the steps below that would not alter the hot box experiment.

- A. The kind of Thermometer used
- B. The amount of rocks in the box
- C. The size of box used
- D. The type of rock used

Answer Key to the assessment above:

- 1) B
- 2) D
- 3) A
- 4) A
- 5) A
- 6) C
- 7) C
- 8) B
- 9) D
- 10) A