Science Mini-Assessment: Grade 4 SC.N.1.2 Form C

Name_____ Date_____

Directions: Circle the letter of the best answer.

MULTIPLE CHOICE

1. A scientist performs an experiment with DNA. What is the **best** way for the scientist to ensure others scientists get similar results when conducting the same experiment?

A. She can provide research about DNA.
B. She can share her prediction and conclusions.
C. She can publish her results in a science journal.
D. She can record the exact procedure of the experiment.

2. Martin and his classmates are studying soil samples to see the types and numbers of organisms that live in the soil. What can their teacher do to ensure that each group has similar results?

A. have students record their data in a class chart
B. have students work in pairs to collect the soil samples
C. have students gather soil samples from the same areas
D. have students choose their own tools for measuring the soil

3. Carmelo performed an experiment in which he tested how the mass of a toy rocket affects the distance the rocket can travel. He tested rockets of three different masses. He performed five trials for each, and recorded his results. He concluded that the rocket with the most mass traveled the shortest distance. Theo and Laylah worked together to do the same investigation following the same procedure. They found no difference between the distances traveled by rockets of different masses. Which of the following **best** explains the differences in their results?

A. Carmelo was working alone to do his investigation.
B. Carmelo did not carry out enough trials for each rocket.
C. Theo and Laylah incorrectly measured the distances the rockets traveled.
D. Theo and Laylah already knew what results they should get.

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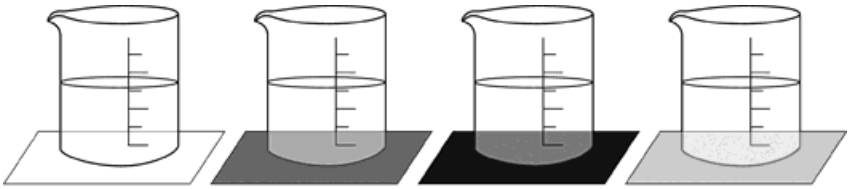
4. Five groups of students followed the same procedure and used the same materials to test the effect of color on evaporation as shown in the illustration below.



The groups placed thermometers with the same starting temperature in each beaker. They measured the temperature change over a period of one hour. Groups A, B, C and E concluded that evaporation happened faster with the black paper. Group D concluded that evaporation happened faster with the yellow paper. What **most likely** accounts for the difference in their results?

A. Group D made a hypothesis that evaporation would happen fastest on yellow paper.
B. Group D did not display their results in a chart or graph.
C. Group D did not make accurate measurements of temperature.
D. Group D failed to make a prediction before doing the experiment.

5. Four students use a meter stick to measure the same length of a string to use in a science investigation. Their measurements are shown in the chart below.

LENGTH OF STRING

Alyssa	20
Megan	20
Dana	20
Yoshi	200

What might account for the difference in Yoshi's measurement?

A. He copied Megan's measurement of the length of string.
B. His string was longer than the strings of the other students.
C. He wrote his measurements in millimeters instead of centimeters.
D. He was working with a different type of meter stick than the other students.