Science Mini-Assessment
Grade 4 SC.N.1.5 Form C

Name _____ Date _____

Directions: Circle the letter of the best answer.

1. Anita and Lebron wanted to test how light affects the growth of seedlings. They both planned and conducted an investigation using the same type of seeds. Anita set up and conducted her investigation using a lamp and a dark place in the classroom. Lebron conducted his investigation in two areas of the schoolyard. The data that they collected showed very different results. Why would their results be so different?

A. Lebron used different types of seeds to conduct his investigation.
B. Lebron observed the seedlings and plants in two different areas of the schoolyard.
C. Seedlings do not grow in the dark.
D. Anita did not control the amount of light that the seedlings received.

2. Students in Mr. Aviles's class are conducting an experiment in which they test the distance that paper airplanes can fly. Each student conducts 5 trials. Which of the following methods should the students use to compare the results?

A. Make a bar graph of the average distance of each student's trials.
B. Make a chart to record the time of each student's first trial.
C. Make a circle graph to show the average of each student's trials.
D. Make a line graph to show the fastest four trials among students.

3. Four groups of students test how baking soda reacts when it is combined with different ingredients found in a kitchen. The groups design methods to conduct this investigation. Each group has written Step 1, or how they will begin the investigation, in the table below.

Felipe's Group	Step 1: Gather the materials.
Helen's Group	Step 1: Measure the baking soda.
Janey's Group	Step 1: Write a procedure
Toshio's Group	Step 1: Make a data table.

Which group has the **best** method of starting their investigation?
A. Felipe's group
B. Helen's group
C. Janey's group
D. Toshio's group

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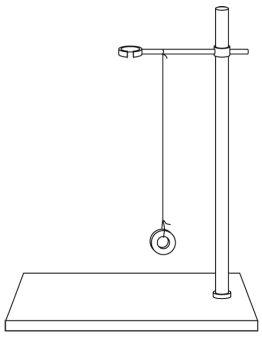
4. Some students want to observe how two lizards are alike and different. They have one lizard in Terrarium A. They have another lizard in Terrarium B. Which is the **best** method for conducting this investigation?

A. Tabitha draws a picture of the lizards and the plants in their terrariums.
B. Nina measures the amount of food each lizard eats and makes a graph.
C. Rico makes detailed observations and records them in a Venn diagram.
D. Sam sets up a controlled experiment to see how the lizards react to light.

5. Paul and Rihanna each conduct an experiment in which they investigate what affects the swing of a pendulum. They tie weights to a string and attach the string to a metal stand. They count the number of times the pendulum swings, and then record their results.



Which of the following methods would affect their results?
A. Paul took less time to set up the pendulum than Rihanna.
B. Rihanna conducted her experiment at a different time of day.
C. Paul used plastic weights, and Rihanna used metal weights.
D. Rihanna counted the number of times aloud before she wrote it down.