

Making & Measuring Circuits

Name: _____ Block: ____ Date: _____

1. Using available materials, make a series circuit with no more than 2 D-Cell batteries and at least two different light bulbs, LEDs, or resistors. Draw your circuit below. Label each circuit element with a letter starting with “a” and continuing in alphabetical order (a, b, c, etc.).

2. Use your voltmeter, take voltage reading across each circuit element and write down each reading in a table below...use your reference letters in making a table to organize your measurements.

3. Looking at all your data, do you notice any patterns when you add or subtract the voltages? If so, describe them.

4. With the same circuit you built in #1, ask your teacher to help you set your meter to measure current and then use the meter to measure the current in at least three different places in the circuit and record your measurements below.

5. What do you notice about the three current measurements you made?

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6. Using available materials, make a parallel circuit with no more than 2 D-Cell batteries and at least two different light bulbs, LEDs, or resistors. Draw your circuit below. Label each circuit element with a letter starting with “a” and continuing in alphabetical order (a, b, c, etc.).

7. Use your voltmeter, take voltage reading across each circuit element and write down each reading in a table below...use your reference letters in making a table to organize your measurements.

8. Looking at all your data, do you notice any patterns when you add or subtract the voltages? If so, describe them.

9. With the same circuit you built in #6, ask your teacher to help you set your meter to measure current and then use the meter to measure the current in at least three different places in the circuit and record your measurements below.

10. What do you notice about the three current measurements you made?