Date

## **Predictions on Parallel and Series Circuits**

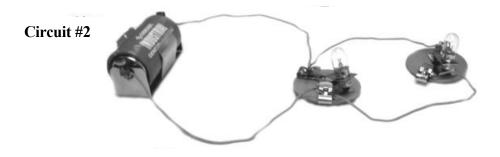
Look at the picture labeled Circuit #1. It has one battery and two bulbs. Notice how the wires are attached. What do you predict will happen if you hook up a circuit just like this one?



Write a paragraph telling what you think will happen. Be sure to answer the following questions: 1) Will it work? 2) Will both bulbs light up? If not, will any bulbs light up? If only one of the bulbs lights, list which one it is. 3) If both bulbs do light, will there be any differences in how bright they are (compared to each other <u>or</u> compared to when there is only one bulb in a circuit)? <u>Most importantly</u>, using what you know about how circuits work, tell <u>why</u> it does what it does. Draw arrows or a diagram if it helps you to explain.

Be sure to turn your paper over and do the second part on the back!

Look at the picture labeled Circuit #2. It also has one battery and two bulbs. Notice how the wires are attached. What do you predict will happen if you hook up a circuit just like this one?



Write a paragraph telling what you think will happen. Be sure to answer the following questions: 1) Will it work? 2) Will both bulbs light up? If not, will any bulbs light up? If only one of the bulbs lights, list which one it is. 3) If both bulbs do light, will there be any differences in how bright they are (compared to each other <u>or</u> compared to when there is only one bulb in a circuit)? <u>Most importantly</u>, using what you know about how circuits work, tell <u>why</u> it does what it does. Draw arrows or a diagram if it helps you to explain.



Read over BOTH of your answers and make sure that they are clear and well-explained.