

Circuit blueprint worksheet.

Type of room (bedroom, kitchen, etc.) that you are modeling: _____

Before working on any project, it is important for the project members to engage in advanced planning! The purpose of this blueprint is to allow you to plan the wiring of your shoebox room.

Circuit requirements for the shoebox project:

- Both batteries should be connected together and placed in the same location.
- One of the bulbs should be significantly brighter than the other two bulbs.
- A switch should turn only the brighter bulb on and off.
- *Optional:* A second switch should act as an emergency “breaker” switch that can turn all three bulbs on and off.

Instructions for making your blueprint:

In the space below, work together with your partner to make a circuit blueprint that meets the listed requirements. You will make the blueprint by using the paper cut-outs of the batteries, bulbs, and switch (or switches) and by drawing wires between them.

Once your blueprint is complete:

Show and explain your blueprint to your teacher. As you explain your blueprint, be sure to trace out each circuit loop with your finger and explain why you put the switch (or switches) where you did.

You will receive the materials for testing your circuit blueprint once your teacher has decided that you can move on to the testing stage.