

**Build a Flashlight Circuit**

**3-5**

**Estimated Time**: 40 minutes

# **Materials (per 3-5 students):**

* 1 Junior Genius “Blinky Lights” kit
* 3 AA batteries
* 1 LED flashlight for talking about project

# **Instructions:**

1. Quiz kids on what parts you would need to make a flashlight. (light bulb, power supply/batteries, switch, wires).
2. Instructor talk about project and explain components and how breadboard works.
3. Complete activity 1 from instructions book.

# **Possible Variations:**

* For activity 1, what happens if you put the LED bulb in the circuit backwards?
* Activity 2, add a 2nd LED circuit in parallel.
* Activity 3, add a 2nd LED in series.

# **Science Behind the Project:**

Explore basic electrical circuits. Understand the components that go into a LED flashlight.