

## Light Your Way Worksheet Answers



1. What are qualities of a good flashlight?

**Possible answers: Reliable (turns on and off without breaking), lasts a long time, easy to carry, easy to turn on, good light beam, small size, etc.**

2. Describe a flashlight. What are the parts of a flashlight and what do they do?

**Case: Holds all the parts together**

**Spring: Pushes the batteries into electrical contact with the bulb.**

**Bulb: Provides light when electric current is present.**

**Switch: Closes the series circuit of the batteries and light bulb.**

**Protective plastic or glass: Keeps the light bulb from breaking.**

**Reflector: Focuses light from the bulb into a beam.**

**Batteries: Provides electric current for the bulb.**

3. What materials are you going to use to make each part of the flashlight?

**Numerous correct answers; check individually.**

4. Draw a circuit diagram for your flashlight in the space below. Label the flashlight parts.

**Numerous correct answers; check individually.**

5. What steps will you follow to make your flashlight?

**Numerous correct answers; check individually.**

6. Describe any design changes you need to make to your flashlight to make it work.

**Possible answers:**

**Flashlight connections are loose.**

**Wires need to be contained in the paper towel tube.**

**Construct switch inside the paper towel tube.**

**Neater construction of the flashlight.**

**Changes to the circuit design, so it works.**

7. Draw a picture of your completed flashlight in the space below. Label the flashlight parts.

**Multiple answers are correct; check individually to make sure the answer includes the circuit components and parts shown below.**

