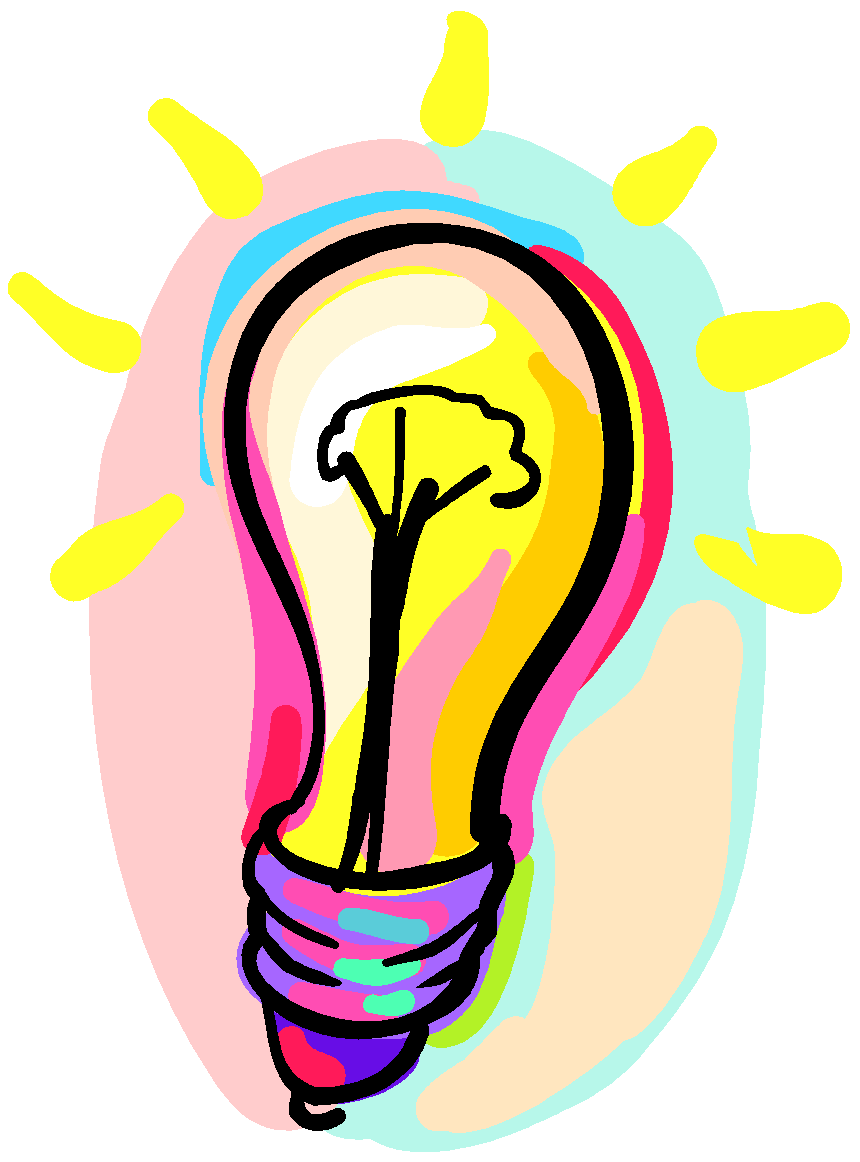
**Inquiry-Based Learning – Electrical Circuits**

1. Students are arranged into groups of 3 or 4 students.
2. Each group is given a light bulb, two wires, and a battery.
3. The groups are told to “make the light bulb light up” (no other instructions are given). Let the students work on it until they figure it out.
4. Tell the groups to put their hand up when they’ve figured it out. As each group figures it out, go to that group and have them explain to you exactly how they got the light bulb to light up (i.e., what exactly is going on)?
5. Give out the handout (next page) and tell the groups that they have to **predict** what will happen in each situation. It is very important that they make their **predictions first**, and then they can test out whether they are right.

**Key Concepts Students Should Understand By the End of the Lesson**:

* electricity requires a complete circuit
* batteries have a positive end and a negative end, and this affects whether electricity can flow through a given circuit or not
* light bulbs do not have a positive end and a negative end and so it doesn’t matter which way the electricity flows through them

