

**Project FOCUS  
Best Lessons  
FIRST GRADE**

**Title of Lesson:** Conductors and Insulators

**Theme:** Physical Science

**Unit Number:** 4      **Unit Title:** Light and Shadows

**Performance Standard(s) Covered (enter codes):**

S1CS1

S1CS5

S1CS6

S1P1

**Enduring Standards (objectives of activity):**

**Habits of Mind**

- Asks questions
- Uses numbers to quantify
- Works in a group
- Uses tools to measure and view
- Looks at how parts of things are needed
- Describes and compares using physical attributes
- Observes using senses
- Draws and describes observations

**Content (key terms and topics covered):**

Essential Question: what materials are conductors and what are insulators?

Key terms: conductors, insulators, static electricity, current electricity, circuit

**Learning Activity (Description in Steps)**

**Abstract (limit 100 characters):** The purpose of this lesson is to find what materials are conductors v. insulators.

**Details:** For this lesson, it is necessary that the children already have a certain understanding of current and static electricity. We performed this experiment first using a conductor to illustrate to the kids what current electricity is and what a circuit is. The next day, we performed this experiment.

We started this experiment by setting out all of the materials, both insulators and conductors together. Then, after reviewing the previous lesson and the definitions of insulator and conductor, I asked the kids how we will be able to tell which are insulators and which are conductors. The conductors will complete the circuit and make the light bulb light up. The insulators will not make the light bulb light up because electricity cannot pass through.

Next we performed the experiment with each of the different materials and had the kids make observations on the worksheet as to whether that material is an insulator or conductor. At the end of the experiment, we talked about what type of material is generally a conductor and which are generally insulators. Conductors are normally metal and insulators are other materials like fabric, wood, and paper. At the end we again reviewed the definition of insulator and conductor to make sure they fully comprehended the concepts.

**Materials Needed (Type and Quantity):**

**Battery (AA or bigger)**

**Several different insulators (ie. wire, tin foil, paper clips)**

**Several different conductors (ie. string, paper, fabric, anything you can find)**

**Notes and Tips (suggested changes, alternative methods, cautions):**

**For this experiment, it is especially helpful if you have them repeat the words "conductor" and "insulator" several times after teaching them the definition.**

**Sources/References:**

**1) See questions and chart below to use as worksheet for kids.**

**How will you be able to tell which are conductors and which are insulators?**

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<b>Material</b>	<b>Conductor</b>	<b>Insulator</b>
1. _____		
2. _____		
3. _____		
4. _____		
5. _____		
6. _____		

**Question**

**How would you summarize what sort of materials are insulators and which are conductors?**

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**2)**

**3)**