

**WorksheetCloud: WORKSHEET**

**Grade: 8**

**Subject: Natural Sciences**

**Topic: Electroscope**

## **Activity 1**

### **How to make a homemade electroscope**

#### **MATERIALS:**

1. glass jar, with lid
2. 14 gauge copper wire, about 12 cm in length
3. plastic straw or plastic tubing
4. 2 small pieces of aluminium foil
5. piece of wool cloth
6. plastic ruler
7. glass rod

#### **INSTRUCTIONS:**

1. Twist one end of the copper wire into a spiral shape. This will increase its surface area.
2. Make a hole in the jar lid and push a small piece of the plastic tubing through the hole.
3. Put the other end of the copper wire through the straw so that the spiral end is on the outside of the lid.
4. Make a hook out of the pointed end of the copper wire.
5. Cut two rectangular strips of aluminium foil.
6. Put each piece of aluminium foil onto the hook. Make a small hole in the aluminium foil to allow it to hang from the hook.
7. Carefully put the hook end of the copper wire into the glass jar and close the jar.
8. Rub the ruler with the wool cloth for a minute.
9. Bring the ruler close to the spiral end of the copper wire.

**QUESTIONS:**

What did you observe when you brought the ruler close to the copper wire?

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What happens if you move the ruler away from the copper wire?

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Why do the pieces of aluminium foil move apart?

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Write a short paragraph to explain what would happen if you brought a positively charged object close to your electroscope.

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