|  |  |  |  |
| --- | --- | --- | --- |
|  | **Science 9** **Investigating Static /15 Electricity** |  | **Name:****Date:Block:** |

 **Question:**What happens when you charge certain materials?

**Background:**Static electricity is electric charge that remains in one place. A material can be charged if there is a transfer of electrons from one to another. Certain materials are more likely to lose electrons, and other materials are more likely to gain electrons.

**Hypothesis:
IF** we charge certain materials, **THEN** they will attract or repel other charged materials.

**Procedure:**

1. Use the materials provided to complete station 1, 2, 3, and 4
2. Follow all of the instructions for the experiment as outlined at the stations
3. Do not experiment with the materials in a random way!

**Observations:**
For each station, describe what you have observed *(1 mark each)* and draw a diagram including the positive and negative charges on the object *(1 mark each)*

**Station 1: Crazy Confetti**

I observed:

Sketch what happened, including negative and positive charges on the object

|  |
| --- |
|  |

**Station 2: Balloon on a Wall**

I observed:

Sketch what happened, including negative and positive charges on the object

|  |
| --- |
|  |

 **Station 3: Magic Can**

I observed:

Sketch what happened, including negative and positive charges on the object

|  |
| --- |
|  |

**Station 4: Weird Water**

I observed:

Sketch what happened, including negative and positive charges on the object

|  |
| --- |
|  |

**Error Analysis:**

What about this experiment might others say is not accurate enough? What might make them think your results were not reliable? *(2 marks)*

**Analysis/Conclusion:**

1. When two materials are rubbed against each other, a charge is created. What subatomic particle is being transferred in order to create that charge? *(1 mark)*
2. Once a material is charged, why does it attract or repel another charged material? *(1 mark)*
3. Explain the Law of Electric Charge. *(2 marks)*
4. Provide an example of static electricity in your day to day life *(1 mark)*