**Experiment: Electrostatic Forces**

**Aim**

To investigate how charge is transferred between different materials.

**Equipment**

|  |  |
| --- | --- |
| * Small pieces of paper * Rods:   + Glass   + Plastic   + Ebonite | * Fabrics:   + Wool   + Silk   + Cotton   + Polyester |

**Method**

1. Choose a type of rod and a type of fabric.
2. Rub the rod with the fabric for 10 seconds, avoiding the sticky tape as you do.
3. Hold the rod above some paper scraps and record what happens in your table. Is there a strong attraction, a weak attraction, or no attraction?
4. Repeat with steps 1-3 other combinations of rod and fabric. Keep your area tidy – you don’t want to be picking up tiny pieces of paper from the floor!

**Variables**

|  |  |  |
| --- | --- | --- |
| *Independent Variable (what are you changing?)* | *Dependent Variable (what are you measuring?)* | *Controlled Variables (what are you keeping the same?)* |
|  |  |  |

**Results**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Wool** | **Silk** | **Cotton** | **Polyester** |
| **Glass** |  |  |  |  |
| **Plastic** |  |  |  |  |
| **Ebonite** |  |  |  |  |

**Questions**

Can you spot any patterns in your results? Are there any materials that always attract the paper, or that never attract the paper?