

Day 4 - Static Electricity

Learning: What is static electricity, and how to create static electricity.

Remind them from Lesson 2 concerning atoms and electrons:

Hold up a piece of wire. Imagine this wire is halved again and again and again – until you get to the smallest possible particle. It is called a molecule and molecules are made of atoms. Atoms are made of different parts – they have a middle part and swishing around the middle part are very tiny things that no one can see called electrons.

Electrons have a negative charge and protons in the middle of the atom have a positive charge.

Show them the below picture, ask if this has happened to them?



The rubbing of a plastic comb against the hair, causing the electrons to be transferred from the hair to the comb. Making the hair have a positive charge, so it is attracted to the comb, which has a negative charge.

Experiment 1 – what materials create static electricity – Give them different items to see if they can make static electricity.

Need:

1. Wool
2. Cotton
3. Polyester
4. Paper
5. PVC Pipe
6. Tissue Paper

Method:

Rub the material against the PVC pipe and see if it is attracted to the tissue paper.

Discuss what materials work the best.

Experiment 2 – Using Static Electricity do the following:

Table 1: Bend Water (Need: Bottle of Water, PVC Pipe and Aluminium Tray)

Table 2: Make Tinsel Fly (Static Electricity Wand & Tinsel)

Table 3: Separate Salt & Pepper (Salt & Pepper in a bowl, Comb)

Table 4: Make Aluminium Can move (PVC Pipe, Aluminium Can & Wool Material)

Table 5: Make Rice Bubbles Dance (PVC Pipe, Rice Bubbles on String & Wool Material)

Craft – Make snake dance in garden with plastic comb.