

Static Electricity

Static electricity results from electrons collecting in a spot and suddenly flowing off (discharge). You have probably experienced it already when you walked across the carpet and touched a metal doorknob – you got a ‘shock!’ Electrons from the carpet collected on you and suddenly discharged when you touch the metal object. You can do activities with static electricity that are fun to observe and show others.



Materials

Balloons
Ruler
Paper confetti
Felt



Charging your objects

You can charge your balloon (blow it up and tie it first) or your ruler by rubbing it back and forth quickly with the felt for a few seconds. Electrons will rub off the felt and collect on the object being rubbed. Do not switch the hand holding the charged object or touch it to anything (this would cause all of the electrons you just rubbed onto your object to flow off). You can charge the item again by rubbing it the same way.



Experimenting with static electricity

Once your object is charged it is ready for experiments. Try the following:

- Pour some confetti on a piece of paper and bring the charged object close but not touching. What happens?

- Bring your charged balloon near a wall or your sweater. What happens?

- Pour a small amount of black pepper or salt on a piece of paper. Bring either of your charged objects near it. What happens?

- Try to find other objects around the house that you can charge with felt.
- See if any materials around the house will charge your balloon or your ruler.