



Guide for Static Electricity STEM activity

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Can Can Go? - Setup

PVC Pipe



Aluminum Can



Cloth



Teflon Rod



Can Can Go? - Procedure

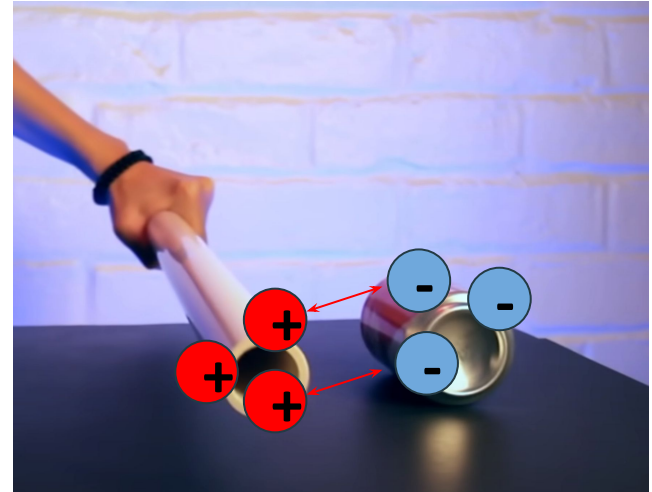
1. Lay the can onto its curved side on a table
2. Wrap the cloth around the PVC's shaft and rub the pipe back and forth with the cloth
3. Hold the pipe with its curved side facing the can's curved side
4. Move the pipe towards and away from the can and watch what happens!
5. Repeat steps 1-5 with the teflon instead of PVC and look for differences.



Can Can Go? - Explanation

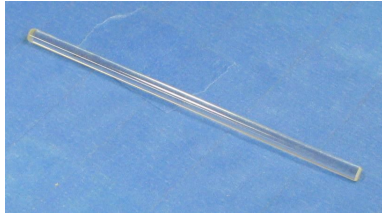
When you rub the pipe with the cloth, the electrons from the pipe are transferred to the cloth, making the pipe positively charged.

Metals like aluminum have lots of electrons, so when the pipe gets close to the can, the electrons on the can and the positive pipe attract each other.



Levitation Trick - Setup

Glass Rod



Fur



Plastic Bag Pieces



Levitation Trick - Procedure

1. Wrap the fur around the glass shaft and rub the glass back and forth with the fur
2. Drop piece of plastic above glass rod
3. Watch how the plastic is repelled by the glass and try to keep the plastic in the air

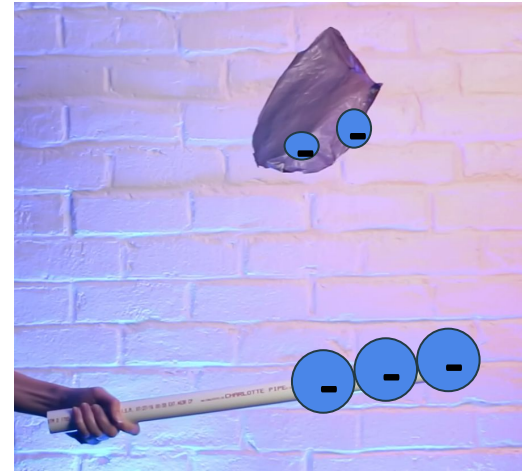


Levitation Trick - Explanation

When you rub the glass with the fur, the electrons from the fur are transferred to the glass, making the glass negatively charged.

Light materials like plastic, are able to be repelled by strong negative charges because they have lots of electrons on the outer layer.

And remember, like charges repel!

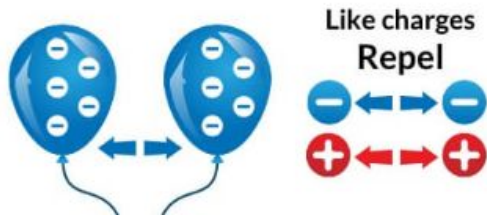


Bonus Balloon Activity - Setup

Balloons

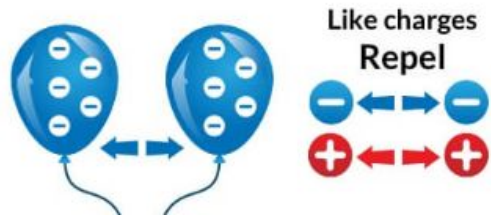


Bonus Balloon Activity - Procedure



1. Rub two balloons with fabric
2. Hold the balloons close together and watch them repel each other.

Bonus Balloon Activity - Explanation



When you rub the balloons with fabric, the electrons from the fabric are transferred to the balloon, making the balloons negatively charged.

And remember, like charges repel!