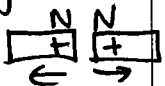



Static Electricity Demos

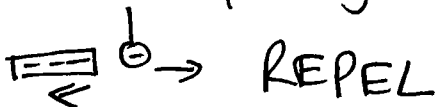
Pre-Knowledge

<p>3 subatomic particles have these charges</p> <ul style="list-style-type: none"> Protons – \oplus Neutrons – 0 Electrons – \ominus <p>When the # of protons = # <u>electrons</u>, then an object is neutral.</p> <p>\oplus charged lose e^-</p> <p>\ominus charged gain e^-</p>	<p>A solid object/materials will become charged by the transfer/movement of PROTONS or ELECTRONS</p> <p>1 way to do \Rightarrow friction</p>
<p>Opposite Charges will: <u>ATTRACT</u> or REPEL</p> <p>Like Charges will: ATTRACT or <u>REPEL</u></p> <p>Charges and neutral objects will: <u>ATTRACT</u> or REPEL</p> <p>Other objects in real life \rightarrow magnets</p> 	<p>What are some examples from everyday life that deals with static charge?</p> <p>Brush hair Walking w socks static cling on carpet lightning</p>

Demo Name: Meter Stick Neutral object (ruler) + charged object

<p>Predict</p>	<p>Observe The meter stick moves in circle. Rod <u>did not</u> touch ruler.</p>
<p>Wonder</p>	<p>Explain INDUCTION</p>  <p>ATTRACT</p> <p>The charged object makes e^- move to one end in ruler.</p>

Demo Name: Pith Ball Charged object + charged object


<p>Predict</p>	<p>Observe Once pith ball charged, moved away from charged rod.</p>
<p>Wonder</p>	<p>Explain Conduction Movement of e^- by touch.</p>  <p>REPEL</p>

Demo Name: Balloon charged by rubbing hair + neutral wall

Predict	Observe The balloon stuck to the wall.
Wonder	Explain INDUCTION still neutral wall e- relocate in wall. ⊖ charge from balloon attracted to ⊕ on wall.

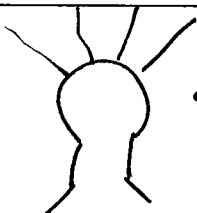
ATTRACT

Demo Name: Paper Confetti

Predict	Observe Once van de Graff turned on, confetti started to pop off top.
Wonder	Explain  By friction, ball ⊖ charged. Makes confetti ⊖ charged.

REPEL

Demo Name: String

Predict	Observe  strings stuck up.
Wonder	Explain String becomes CONDUCTION negatively charged ∴ string repels (same like hair).

Static electricity → build up of charge by gaining or losing e- . "Transfer / movement" of e-