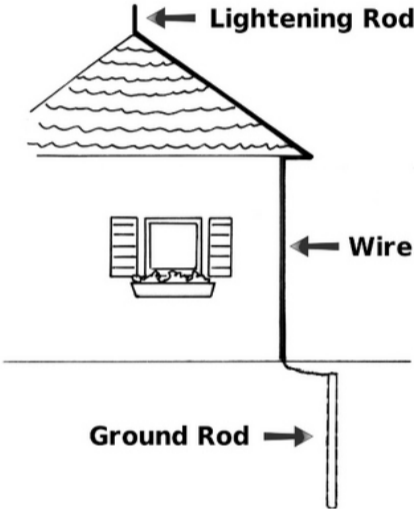
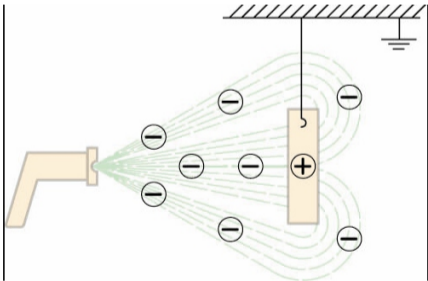
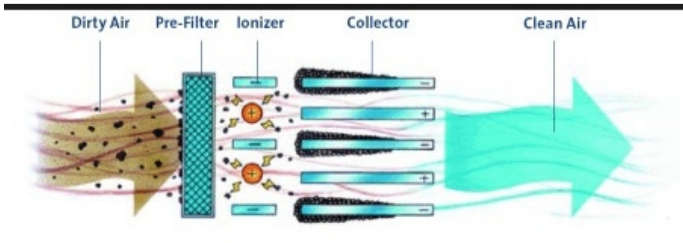


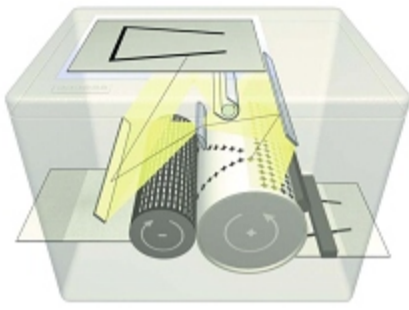
**Science 9**  
 Unit 3: Static Electricity  
 Worksheet 5: Applications of Static Electricity



We've all have experienced static electricity in one way or another. Those unexpected little shocks we get when we touch a doorknob or some other metallic object, the balloons that stick to the wall after being rubbed in the head, or hair itself standing straight when it comes close, all are produced by static electricity.

All those are common in our everyday lives, and at most they are fun to watch. However, there are many practical uses of static electricity.

Application	How is Static Electricity used?
<p>Lightning Rods</p> 	<ul style="list-style-type: none"> <li>- Metal pole with a wire attached to it</li> <li>- allows for a path of electrically charged particles to flow</li> <li>- decreases the total amount of electric charge in the building</li> </ul>
<p>Spray Painting</p> 	<ul style="list-style-type: none"> <li>- Paint is negative</li> <li>- Surface of car is positive</li> <li>- Unlike charges attract</li> <li>- Pain is attracted to the surface</li> <li>- Negative charges on the car spread put because they repel each other</li> </ul>
<p>Electrostatic Air Cleaners</p>	<ul style="list-style-type: none"> <li>- Air ionizers that freshen the air inside homes work in a similar way.</li> <li>- The ionizers remove electrons from particles in the air, and the charged particles are then attracted to a plate on the device.</li> </ul> 

<p>Photocopier</p> 	<ul style="list-style-type: none"> <li>- Light moves across the document that you place on the copier’s glass surface. This light reflects off the white sections of your original and strikes the drum.</li> <li>- The charged drum of a photocopier is made of photoconductive material. Where light hits the surface of the photoconductive material, the static charge is removed, so less toner will be attracted to these areas. This is now a copy—in static electricity—of your original.</li> <li>- The machine then spreads the neutral toner over the surface of the drum. The toner sticks only where the drum has a static charge.</li> <li>- A positively charged blank sheet of paper passes over the surface of the drum. This sheet of paper has a larger charge than the drum. The toner is pulled off the drum and onto the paper by the large positive charge.</li> <li>- The toner is then baked onto the paper with heat as soon as the page comes off the drum. Finally, an exact copy of your original is ejected from the photocopier</li> </ul>
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## STUDENT PROJECT

Create a For Sale Sign for some “Application of Static Electricity”

Your Poster should include:

- Name of what you are selling
- How it works
- Pictures/Drawing
- Price
- Phone number

# FOR SALE

<b>Model</b>	<b>Year</b>	<b>Price</b>
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