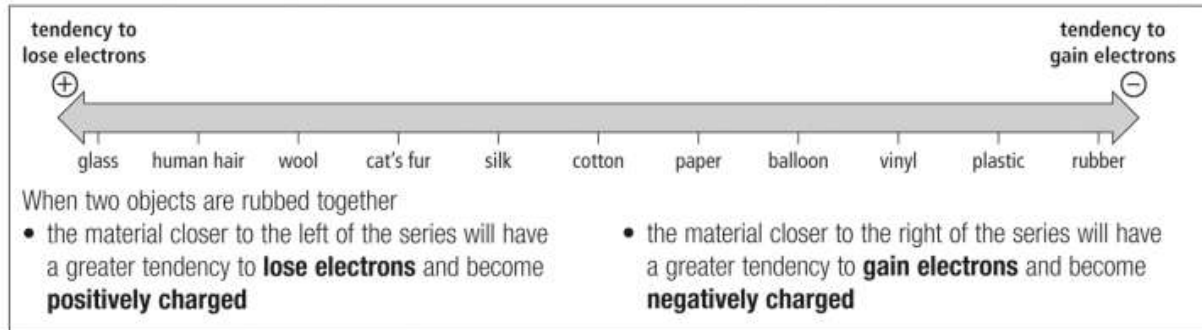


Static charge detective

LT: I can interpret a scenario to determine the charge of an object.

Examine the diagram. Some materials are more likely to lose electrons when they are rubbed against another material. Other materials are more likely to gain electrons.



Use the diagram to answer the following questions:

1. You use a plastic comb to comb your hair.
 - a. Your hair becomes _____ charged.
 - b. The comb becomes _____ charged.
2. You rub a balloon on your cat's back.
 - a. The balloon becomes _____ charged.
 - b. The cat's back becomes _____ charged.
 - c. Your cat does _____ to you.
3. As you take clothes out of a clothes dryer, you notice that a wool sock clings to a silk shirt.
 - a. The wool sock has become _____ charged.
 - b. The silk shirt has become _____ charged.
4. Which materials on the chart would have the strongest opposite charges after you rub them together?
 _____ and _____
5. Which of these materials would gain the most electrons when rubbed with a silk cloth?

a. paper
b. wool
c. vinyl
d. cotton
6. You take wool and rub it on an unknown material. You notice the unknown material is attracted to a negatively charged balloon.
 - a. What is the charge on the unknown material? _____
 - b. What is the charge on the wool? _____
 - c. Use the chart to figure out what the unknown material could be. _____



7. Look back at the chart on the front page. What are your top three choices for a material that would **give the balloon a negative charge**?

1) _____

2) _____

3) _____

8. **Analyze the situations below. Will the objects shown attract or repel each other?**



1. _____ 2. _____ 3. _____



4. _____ 5. _____ 6. _____