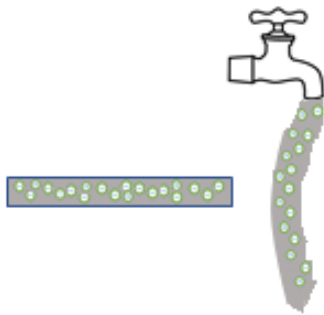


Electrostatics Memorandum

1. A. Friction
2. The ruler is negatively charged. As soon as it is held close to the paper, all the electrons in the paper move away from the ruler. It happens because electrons repel the other electrons. Now there are more protons on the side of the paper closest to the ruler and the paper is attracted to the ruler. Thus, the pieces of paper 'jump' towards the ruler.
3. Every drop of water in the water current is neutral. The water molecules are polar (one side of the molecule is positively charged and the other side is negatively charged). The opening of the sprinkler is very narrow. When the water molecules move tightly together through the opening the negative poles and the positive poles repel each other and the drops are spread in all directions.
4. Electrons move to and from the jersey. Your hair now has a charge. Because all of your hair possesses the same charge, each hair will repel one another and rise in all directions.
- 5.



The ruler is negatively charged (more electrons than protons). The water molecules have positive and negative poles. The positive pole of the water turns to the side where the negatively charged ruler is. The negatively charged ruler attracts the positive pole of the water and the water bends towards the ruler.