

MAGIA OU CIÊNCIA? MAGIC OR SCIENCE?



#athomewithmaat



STATIC ELECTRICITY

Needed materials

- Paper squares (5x5cm),
 - Wool sweater or wool ball,
 - Ballpoint pen,
 - Plastic ruler,
 - Clothes peg.
-

Instructions

1.



1. Use the clothes peg to hold the pen in a way that the tip is facing up.

2.



2. Crease the paper to create two lines draing a point in the center.

3.



3. Place the creased paper on top of the pen, holding the center point of the paper in the tip of the pen.



STATIC ELECTRICITY

Instructions

4.



4. Take the ruler and the wool. Energetically, rub the ruler in the wool.

5.



5. Place the ruler near the paper (without touching). See what happens.



STATIC ELECTRICITY

All matter is made of atoms, which are composed of three small particles: electrons (negative charge), protons (positive charge) and neutrons (neutral charge). Electrons and protons are opposite and, therefore, attract each other.

Generally, the number of protons and electrons is equal. However, some materials (insulators) easily steal electrons from others, which results in an excess of negative charges.

As it is necessary to restore balance, electrons will be attracted to other objects that have more positive charges. This phenomenon is called static electricity.

One way to achieve this load imbalance is through friction.

Now you understand that...

1. The paper started to spin because the charges in the ruler are being attracted to the ones' of the paper
2. The plastic ruler could be replaced by a plastic pen
3. The wool object could be replaced by your own hair
4. We could observe two phenomenons: static electricity and charge transference
5. The plastic ruler is an insulator

#athomewithmaat