

PRACTICE 12: ELECTRICITY & MAGNETISM

ELECTRICITY

Introduction

Electrification of matter is the phenomenon that makes a body acquire electric properties.

Experience 1:

- Take a piece of paper, and tear it in small pieces.
- Rub a pen with a piece of cloth (or clothes) and move it closer to the pieces of paper. What do you observe?

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Experience 2:

- Rub a balloon with a piece of cloth (or your clothes) and move it closer to the long straight hair of a classmate. What do you observe?

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Experience 3 :

- Rub a balloon with a piece of cloth (or your hair) and move it closer to a small thread of water coming out of the tap. What do you observe?

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You just discovered two ways to get electrification: friction and induction. Pay attention to the explanations of your teacher.

MAGNETISM

Introduction

Magnetism is a property of certain materials that attract certain metals.

Experience 1:

- Take a magnet and move it closer to a piece of plastic and a paperclip. What do you observe?

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You just discovered magnetism. A magnet has two poles, namely: North (blue) and South (red).

- Draw a magnet indicating the poles.

Experience 2:

- Face two magnets by the same pole and then by opposite poles. What do you observe?

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- Answer:

Poles of the same type..... Poles of different type

Experience 3:

- Break a magnet (have a look to the broken magnet you will be given)
- Is it possible to get a magnet with just one pole?