

Student sheet: Electric Charge – Types & Behaviour of Charge.

Objectives:

By the end of the session you will identify two types of charge (positive & negative), will observe the charging of various objects by friction, and understand the behaviours of the charges.

Resources required:

Roles of scotch tape; plastic tubes (such as for table tennis balls); wool cloth; paper; cereal; salt; table tennis balls.

Student access to internet for www.twothirtyvolts.org :
Electric Charge Student Revision Notes
Electric Charge Student Quiz

Activity:

Scotch Tape Experiment:

- Tear of two 15 cm pieces of scotch tape and fold the first few centimeters of sticky sides together. Place the two strips sticky side down on a table parallel to each other. Rub the tape then pull off the table quickly.
- Then hold the two strips apart from each other and gradually bring closer together and record on the Worksheet what happens.
- Repeat the process varying the length of the tape and the amount the tape is rubbed.
- Next place one strip on the table sticky side down and then place the second strip on top of it and rub the top strip. Pull the two strips off together, then separate, hold apart and then gradually bring closer together. Record on the Worksheet what happens.
- Repeat the process varying the length of the tape and the amount the tape is rubbed.

Plastic Tube Experiment:

- Place the plastic tube over each of small pieces of paper, cereal, salt, and table tennis balls in turn and record your observations on the Worksheet.
- Rub the plastic tube with the wool cloth and repeat the process for the different materials.

Further work:

Access the Student Quiz on Electric Charge at www.twothirtyvolts.org to test understanding of subject.

Linked Resources

www.twothirtyvolts.org :
Electric Charge 11-14 Student Revision Notes
Electric Charge 11-14 Revision Quiz

Worksheet: Electric Charge – Types & Behaviour of Charge.

Scotch Tape Experiment Observations:

Rubbed Plastic Tube Experiment Observations: