ELECTRICITY AND MAGNETISM

<table>
<thead>
<tr>
<th>Grade Levels</th>
<th>Program Length</th>
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<tbody>
<tr>
<td>3rd, 4th, 5th, 6th, 7th, 8th</td>
<td>Approximately 45 minutes</td>
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Science Presentations
Science Presentations are designed to help illustrate and elaborate science concepts taught in the classroom and to stimulate student interest in the subject matter.

Description
Spark your students' scientific curiosity with this exciting program as we investigate the connections between magnetism, static electricity, electrical current, conductors and insulators. An introduction to atomic structures and a sprinkling of history help to make demonstrations with a Van de Graaff generator, motors, magnets, and electrical conduction a truly hair-raising experience!

North Carolina Essential Standards Correlation

<table>
<thead>
<tr>
<th>Grade</th>
<th>Standards</th>
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<tr>
<td>4th</td>
<td>4.P.1, 4.P.3.1</td>
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Objectives
1) Identify electricity as a form of energy.
2) Discover how magnets interact to produce motion.
3) Discover how electrically charged particles interact to produce motion.
4) Understand static electricity and electrical current by seeing examples of each.
5) Recognize contributions from famous inventors such as Thales, Franklin, Van de Graaff, Volta, Faraday, and Shen Kuo.

Vocabulary
- amber
- attract
- atom
- battery
- closed circuit
- conductor
- current
- electrical charge
- electricity
- electromagnet
- electron
- generator
- insulator
- lightning
- magnet
- negative
- open circuit
- positive
- pole
- repel
- static electricity
- volt