



## Unit 5 Electricity and Magnetism

### High School Physical Science

#### Unit Length and Description:

#### 4 Instructional Weeks

Students will plan and conduct investigations to provide evidence that an electric current can produce a magnetic field and or changing the magnetic field can produce an electrical current. Students will also use models of two objects interacting through electric and magnetic fields to illustrate the forces between objects and the changes in energy of the objects due to this interaction.

#### Science Standards:

- HS-PS2-5** Plan and conduct an investigation to provide evidence that an electric current can produce a magnetic field and that a changing magnetic field can produce an electric current.
- HS-PS3-5** Develop and use a model of two objects interacting through electric or magnetic fields to illustrate the forces between objects and the changes in energy of the objects due to the interaction.

#### Enduring Understandings- Unit Anchor Phenomenon:

A Van de Graaff generator creates static electricity.

#### Essential Questions- Reflective Summaries:

- Plan and conduct an investigation to provide evidence that electric current can produce a magnetic field and a changing magnetic field can produce electric current.
- Develop and use a model of two objects interacting through electric or magnetic fields to illustrate the forces between objects and the changes in energy of the objects due to the interaction.