

Magnets & Migration

8th Grade Classroom Program

Program Summary

Students will apply information about magnets and magnetic fields to learn about current research on how animals use the Earth's magnetic field to navigate. They will first investigate how the magnetic field of a bar magnet exerts a force on a compass needle. They will then explore how birds may use biological compasses in order to migrate over large distances. Finally, students will evaluate the design of experiments that scientists are currently using to test magnetoreception in migrating butterflies.

Phenomenon

Animals use Earth's magnetic field to navigate.

Next Generation Science Standards

MS PS2-5 Conduct an investigation and evaluate the experimental design to provide evidence that fields exist between objects exerting forces on each other even though the objects are not in contact.

Asombro lessons are aligned with the three-dimensional learning model of the Next Generation Science Standards

| Science & Engineering Practices | Disciplinary Core Ideas | Crosscutting Concepts |
|--|------------------------------------|------------------------------|
| Planning and Carrying Out Investigations Developing and Using Models Constructing Explanations and Designing Solutions | <i>PS2.B</i> Types of Interactions | Cause and Effect Patterns |

Common Core State Standards

- 8.RST.3* Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.
- 8.RST.4* Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6–8 texts and topics.

Date: _____

Asombro Staff: _____