

Unit Issue Provides context for relevant and connected anchoring and investigative phenomena within the unit.

Objects can be observed to interact with other objects even when they are not in contact with one another. How do different types of force fields help us design transportation?

Unit Phenomena What can we observe in science that makes us wonder?

Gravity, magnetism, electricity, and electromagnetism are used in designed systems.

When an object is released in the air, it falls to the ground.

Magnets are attracted to or repelled by other magnets.

Gravity and magnetism both affect objects at a distance.

When a balloon is rubbed on hair, the hair will be attracted to the balloon even as the balloon is pulled away.

Metals that are not magnetic can be affected by moving magnets, and moving charges can generate magnetic fields.

Activities Students use SEPs and understanding of DCIs and CCCs to explain, justify, and argue a point of view about the issue.

save the astronaut

design a gravitational transporter

investigating gravitational force

mapping magnetic fields

design a magnetic transporter

design experiments with an electroscope

modeling an electric field transporter

gyrosphere rescue

evaluating transporter designs

