

Teaching Unit: ***Flight***

Essential Understandings

All objects that go through the air are influenced by certain forces.

The way an object moves through the air is altered by changing the lift, drag, gravity, or thrust.

Man has always had the desire to fly.

Sub Topic:

Knowledge and Skills

Learn and explain the 4 forces that affect flight: lift, drag, gravity, and thrust.

Learn and be able to label basic parts of a plane.

Discuss how these parts when manipulated control the flight of the plane.

Explain the implications of Wilbur and Orville Wright's invention of powered flight on the world.

Have a basic understanding of the history of flight.

Share how design changes affect the flight of model planes.

Have an understanding of the anatomy of a bird for it to be able to fly.

Teaching Unit: ***Weather***

Essential Understandings

Weather affects our daily activities and choices.

People need to be informed about weather and know how to access weather information in order to make choices.

The sun is essential for weather to happen on Earth.

Sub Topic:

Knowledge and Skills

Know the process of the water cycle

Evaporation

Condensation

Precipitation

Collection

Know the three major cloud types: cumulus, stratus, cirrus.

Identify instruments that meteorologists use to forecast the weather.

Know the different forms of precipitation.

Know the difference between weather and climate.

Understand why people use science and technology and how scientists & engineers work.

Know Weather Vocabulary.

Teaching Unit: ***Birds of Prey***

Essential Understandings

Birds of prey have special adaptations and physical characteristics that help them to survive in their environment.

Sub Topic:

Knowledge and Skills

Be able to list physical characteristics that help a bird of prey survive.

Know the different groups types.

Be able to identify the type of bird of prey by body shape and flying motion.

Know bird of prey vocabulary.

Be able to list birds of prey found in Maine and what they eat.

Know the different habitats in our state where birds of prey might choose to live.

Teaching Unit: *Solar System*

Essential Understandings

The Earth is a part of a larger system of planets called the solar system and the sun is at the center of our solar system.

Sub Topic:

Knowledge and Skills

Name objects found in the solar system: Sun, planets, asteroids, dwarf planets, meteors, comets, satellites (moons).

Name and order the planets.

Know the difference between the inner (rocky) planets and the outer (gaseous) planets.

Know that our sun is a star at the center of our solar system and the only star in our solar system. Introduce that our star is just one of billions in the Milky Way Galaxy.

The concepts of orbit (revolution), and rotation will be discussed and demonstrated.

Explain Earth's heat and light energy is from the sun.

The relationship between the Earth and the moon will be discussed. (tides, phases)
