

MOVE TO LEARN GLOBAL SCHOOL

GRADE 3 CURRICULUM - SCIENCE

Unit 1 – Physical Science Forces

Forces and Motion Concepts

- Forces make things move.
- Forces can be balanced or unbalanced.
- Friction is a force that slows objects down.
- Forces change the motion of objects.
- Forces have size and direction.

Magnets Concepts

- Magnets are attracted to metals with iron.
- Magnets attract and repel each other.
- Magnets have a magnetic field.

Gravity Concepts

- Gravity is a force that holds us to Earth.
- Isaac Newton had the idea that there must be a force pulling things to Earth's center.
- Everything has gravity.
- Objects with more mass have a stronger pull of gravity.
- Weight is a measure of the pull of gravity on an object.

Unit 2 – Life Science Cycles

Life Cycle Concepts

- Reproduction is essential to the continued existence of every kind of organism.
- Plants undergo a series of orderly changes in their life cycles.
- Organisms have structures and functions that help them survive in an environment.
- Changes that flowering plants go through during their life form a pattern.

Growth and Change Concepts

- Living things need energy to grow and develop.
- Animals get energy from food.
- Different types of animals grow and develop at different rates.
- Some animals change entirely as they develop. This change is called metamorphosis.

Animal Groups Concepts

- Being part of a group helps animals obtain food.
- Live in a group and hunt together.
- Being part of a group helps animals defend themselves.

- An elephant herd defends its members.
- Being part of a group helps animals obtain food and cope with changes in their habitat.
- Birds migrate in order to find a habitat with abundant food.

Offspring Concepts

- Physical and behavioural adaptations allow organisms to survive.
- Different organisms vary in how they look and function because they have different inherited information.
- Some inherited traits appear as an animal grows.
- Many traits of an organism are from its parents.

Unit 3 – Life Science Changes

Fossils Concepts

- Fossils provide evidence about the type of organisms that lived long ago.
- Types of fossils include; molds, casts and trace fossils.
- Earth's layers of rock comprise the fossil record.
- The fossil record includes plants and animals that no longer exist anywhere.
- We learn about Earth's environments from fossils of plants and animals that lived long ago.
- Some changes in Earth's surface happen slowly over million of years ago.

Dinosaur Concepts

- Some kinds of animals that once lived on Earth are no longer found anywhere.
- Dinosaurs had bodies that were built to help them survive.
- The fossil record provides evidence about dinosaurs and their disappearance.
- Fossils provide evidence about organisms that lived long ago.
- A paleontologist is a scientist who studies living things of the ancient past.

Adaptations Concepts

- External characteristics of living things allow their needs to be met.
- For any particular environment, some kinds of living things survive well, some survive less well, and some cannot survive at all.
- Living things have characteristics that allow them to survive.
- Living things have different characteristics that allow their needs to be met.

Ecosystems Concepts

- Ecosystems include living and non-living things that interact with each other.
- Non-living things can make changes in a habitat that affect the living things there.
- A living thing can make changes in a habitat that affect the organisms living there.
- Humans have unintentionally changed some ecosystems by bringing in other species.

- New species in an ecosystem can affect the survival of native plants and animals.

Unit 4 – Earth Science Earth and Sky

Weather Concepts

- Earth is surrounded by layers of gases that make up the atmosphere.
- Weather happens in the atmosphere.
- Water in the atmosphere forms clouds.
- Water falls back to Earth in the form of precipitation.
- Scientists record weather patterns so that they can make predictions about what kind of weather might happen next.

Climate Concepts

- Climate describes an area's typical weather condition over a period of years.
- Weather describes the conditions in the atmosphere in a given place and time.
- The gases in an atmosphere trap the energy of the sun and keep Earth warm.
- Climate affects living things in the ocean environment.
- Living and non-living things affect each other in an ecosystem.

Hurricane Concepts

- A hurricane is a natural hazard that results from natural processes.
- Hurricanes have powerful winds.
- Floods often accompany a hurricane.
- A hurricane is a natural hazard that humans cannot eliminate, but people can take steps to reduce a hurricane's impact.
- Meteorologists warn people who are in the path of a hurricane.
- Engineers study hurricane damage in order to create stronger buildings.

Tornadoes Concepts

- A tornado is a natural hazard that results from natural process.
- Tornadoes have powerful swirling winds.
- Tornadoes are natural hazards that humans cannot eliminate, but people can take steps to reduce a hurricane's impact.
- Scientists study tornadoes to understand them better and to be able to forecast them more accurately.
- People learn and practice safety procedures to protect themselves from a natural hazard.
- Watches, warnings, and drills help people reduce the impact of a natural hazard.

Floods Concepts

- Floods are a natural hazard that result from natural process.
- A flood can cause harm to people and property.
- Floods occurred in ancient times.

- People cannot eliminate natural hazards.
- Natural hazards such as floods can also have benefits.
- People cannot eliminate natural hazards such as floods, but they can take steps to reduce the impact.
- A dam controls river flooding, stores water to be used later, and creates power.