

MOVE TO LEARN GLOBAL SCHOOL

GRADE 5 CURRICULUM - SCIENCE

ORGANISMS AND ECOSYSTEMS

Unit 1 – How Plants Get Food: Concepts

- Some plants get water through their roots
- Plants make their own food using sunlight, water, and CO₂
- Plants make their own food through photosynthesis

Unit 2 – Food Web: Concepts

- Organisms play different roles in their ecosystems
- Organisms in an ecosystem interact with one another through the transfer of energy
- Herbivores, carnivores and omnivores are consumers
- Organisms in an ecosystem are part of a food chain
- Organisms are in competition with each other for food
- Organisms belong to many food chains that make up a food web

Unit 3 – Adaptations: Concepts

- Organisms develop adaptations to fit their unique environment
- Pandas have developed specialized adaptations to help them eat bamboo
- Polar bears have developed specialized adaptations to help them live on the ice and hunt seals
- If organisms do not adapt to their environment they are in danger of extinction
- Habitat destruction can lead to extinction, which could impact the ecosystem

Unit 4 – Decomposers: Concepts

- Soil is an ecosystem home to millions of microorganisms
- Earthworms are decomposers
- Earthworm castings and burrowing help enrich the soil
- Decomposers, producers, and consumers all work together to keep an ecosystem healthy

EARTH SYSTEMS

Unit 5 – The Atmosphere: Concepts

- The atmosphere is a layer of gases that surround the planet
- The atmosphere traps heat from the sun
- Greenhouse gases in our atmosphere absorb heat
- The amount of greenhouse gases in our atmosphere are increasing
- Cattle farming creates a large amount of greenhouse gas

- Changes to our diet could help decrease the amount of greenhouse gases released

Unit 6 – The Water Cycle: Concepts

- All the water in and around the Earth is called the hydrosphere
- Water travels from ocean to air to land in a process called the water cycle
- Condensation is what happens when water changes from gas to liquid
- Precipitation is what happens when water becomes too heavy for the air and falls to the ground
- The process of evaporation, condensation, and precipitation happen in a continuous cycle

Unit 7 – Water on Earth: Concepts

- Earth has far more salt water than fresh water
- Fresh water can be found in lakes, rivers, glaciers, underground and in the atmosphere
- Most of Earth's fresh water is in glaciers and ice caps
- The second largest store of water on Earth is in the ground
- Groundwater is threatened by pollution and overuse
- We can protect our freshwater by practicing conservation

Unit 8 – Weathering and Erosion: Concepts

- The geosphere is constantly being shaped and reshaped by natural processes
- The Grand Canyon was formed by weathering and erosion
- People can impact geological processes

SPACE SYSTEMS

Unit 9 – Gravity: Concepts

- Gravity is a force of attraction that exists between all objects in the universe
- The more mass an object has, the stronger its gravitational force will be
- Gravity pulls towards the center of the Earth
- All objects have gravity
- Gravity pulls on all objects, no matter what their size, at the same speed

Unit 10 – Day and Night: Concepts

- Earth completes a single rotation in 24 hours
- As Earth spins, different parts of the planet receive sunlight
- Stars do not move in the sky—it is Earth that rotates
- Because the sun is much closer to Earth than other stars, its light is brightest in our daytime sky
- Earth's rotation regulates temperature, making it possible for life as we know it to exist

Unit 11 – The Sun and Stars: Concept

- Stars are made up of burning hot gases and emit electromagnetic radiation
- The sun shines brighter than other stars because it is closest to Earth
- The sun is an average size compared to other stars
- The next closest star to earth is light years away

Unit 12 – Pattern of Stars: Concepts

- Organisms play different roles in their ecosystems
- Stars are classified by colour, size, and temperature
- Our sun is an average sized star
- Some stars appear grouped together in the sky in formations called constellations
- Different constellations are visible during different times of the year because of Earth's orbit around the sun

STRUCTURE AND PROPERTIES OF MATTER

Unit 13 – Physical Properties: Concept

- Matter exists as a solid, liquid, or gas
- Matter can change state from solid to liquid to gas
- Physical changes do not create different substances
- Physical properties include colour, hardness, texture, ability to conduct heat, and response to magnetic forces

Unit 14 – Mixtures and Solutions: Concepts

- A mixture is a combination of substances in which the structure of the substances does not change
- A solution is a mixture in which all parts are evenly mixed
- A solution is made up of a solute and a solvent
- Solubility is a substance's ability to dissolve
- Solubility is a physical property

Unit 15 – Chemical Properties: Concepts

- Chemical properties describe a substance's ability to go through a chemical change
- Chemical reactions change the structures of substances and create new substances
- In any chemical reaction mass is neither created nor destroyed

Unit 16 – Chemical Reactions: Concepts

- The chemical reaction of corrosion causes iron, oxygen and water to change into rust
- The chemical reaction of combustion occurs when substances combine with oxygen to produce heat and light
- Acid-base reactions occur when an acid and a base combine to create salt and water