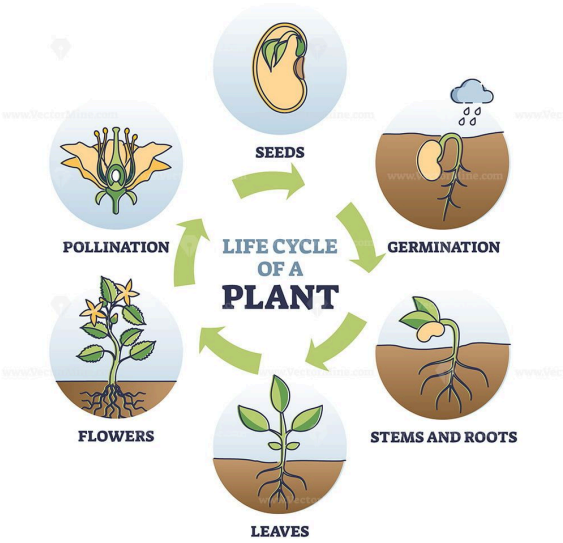
General Topic: Life Cycles of Plants and Animals

Lesson Overview:

Students explore the stages of **growth and development in plants and animals**, understanding how life begins, grows, reproduces, and ends.

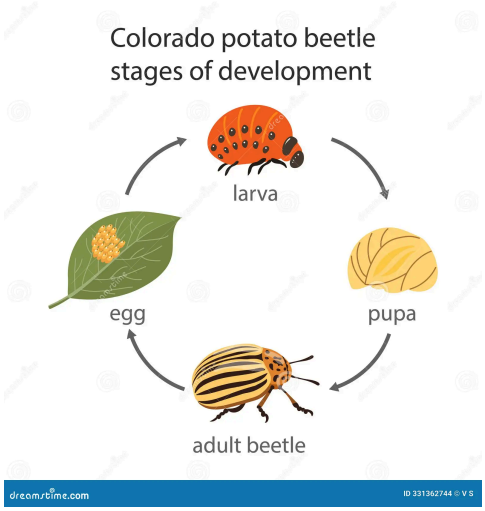
Key Concepts and Subtopics:

- Stages in the life cycle of plants (seed, germination, growth, reproduction)

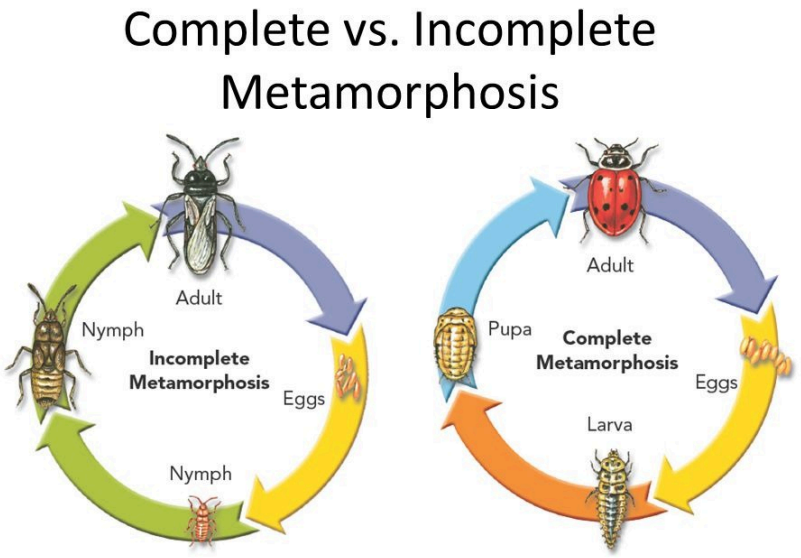


Reference:https://www.pinterest.ie/pin/life-cycle-of-plant-with-seeds-growth-in-biological-labeled-outline-diagram--732538695650164852/

- Life cycles of animals (egg, larva, pupa, adult for insects; egg to adult for birds, amphibians, reptiles)



- Metamorphosis and non-metamorphosis animals



Reference:https://animaldifferences.com/page/2/

- The role of reproduction in species survival

What is Reproduction?

Reproduction is the process by which living things produce offspring (babies, young, or new plants).

Why is it Important?

- Ensures the **continuation of the species** (hindi mauubos).
- Passes on **traits** (katangian) from parents to offspring.
- Maintains the **balance in ecosystems** (more plants → more food for animals).

Types of Reproduction

1. **Asexual Reproduction** – only **one parent**, offspring are **exact copies**.
   - Example: Hydra budding, potato growing from tuber
2. **Sexual Reproduction** – involves **two parents**, offspring are **unique**.
   - Example: Humans, dogs, flowering plants

Real-Life Example:

Observing a caterpillar turn into a butterfly.

Remember This!

- *Every living thing has a cycle that ensures its species continues.*

General Topic: Human Body Systems

Lesson Overview:

Introduces major systems of the **human body and their functions**.

Key Concepts and Subtopics:

- Circulatory system – heart and blood vessels

  - **Main Parts:** Heart 🫀, blood, blood vessels
  - **Function:** Carries oxygen and nutrients around the body, removes waste.
  - **Analogy:** Like a **delivery system** 🚚 that brings supplies to every cell.

- Respiratory system – lungs and breathing

  - **Main Parts:** Lungs 🫁, nose, trachea
  - **Function:** Brings oxygen in and releases carbon dioxide.
  - **Analogy:** Like **breathing balloons** 🎈 that fill and empty.

- Digestive system – breaking down food into nutrients

  - **Main Parts:** Mouth 👄, stomach, intestines
  - **Function:** Breaks down food into nutrients for energy and growth.
  - **Analogy:** Like a **food factory** 🏭 that turns food into fuel.

- Musculoskeletal system – muscles and bones for movement

  - **Main Parts:** Muscles 💪, bones 🦴, joints
  - **Function:** Helps the body stand, move, and protect organs.
  - **Analogy:** Like the **frame and engine** of a car 🚗.

- Nervous system – brain, spinal cord, nerves for control and coordination

  - **Main Parts:** Brain 🧠, spinal cord, nerves
  - **Function:** Controls body actions, thoughts, and senses.
  - **Analogy:** Like a **computer** 💻 sending messages through wires.

Real-Life Example:

Breathing faster after running because your body needs more oxygen.

Remember This!

- *Body systems work together—no system works alone.*

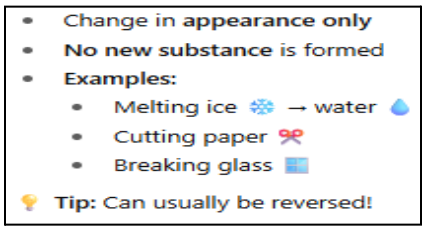
General Topic: Matter: Physical and Chemical Changes

Lesson Overview:

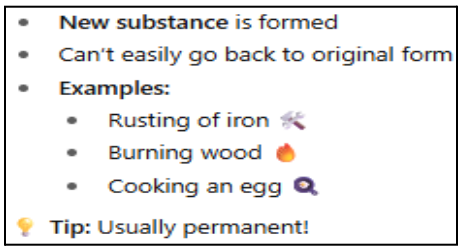
Explains the differences between **physical and chemical changes** in matter.

Key Concepts and Subtopics:

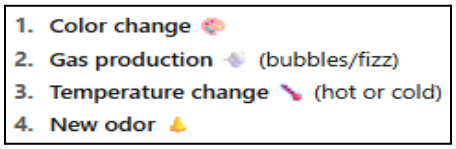
- Physical change – change in appearance but no new substance (melting ice, cutting paper)



- Chemical change – new substances formed (rusting, burning, cooking)



- Indicators of chemical change (color change, gas production, temperature change, odor)



Real-Life Example:

Boiling water (physical) vs. frying an egg (chemical).

Remember This!

- *If a new substance is made, it's a chemical change.*

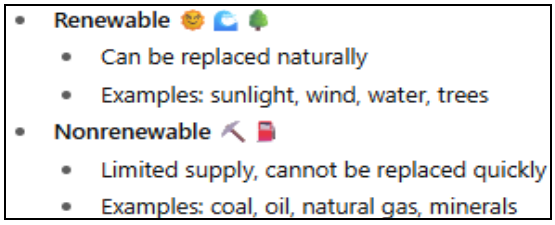
General Topic: Earth Science: Natural Resources and Weather

Lesson Overview:

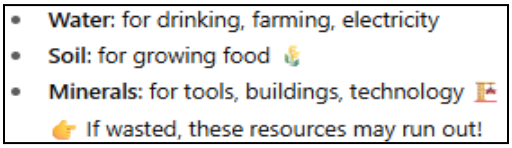
Covers **Earth's resources and weather patterns** that affect living things.

Key Concepts and Subtopics:

- Types of natural resources (renewable, nonrenewable)



- Importance of conserving water, soil, and minerals



- Weather elements (temperature, wind, rainfall)

- Reading weather instruments and forecasts

Real-Life Example:

Saving water during a drought to conserve resources.

Remember This!

- *Our survival depends on how we care for Earth's resources.*

General Topic: Forces, Energy, and Simple Machines

Lesson Overview:

Introduces how **forces and energy** make work easier through **simple machines**.

Key Concepts and Subtopics:

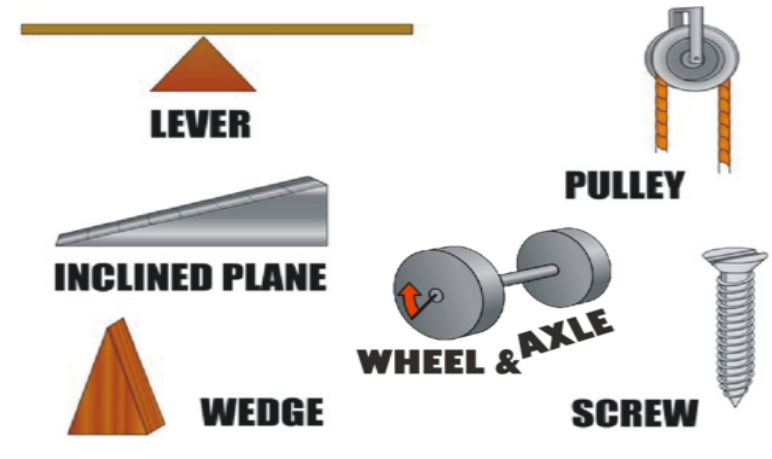
- Types of forces (push, pull, friction, gravity)

• **Push** 👉 moving something away
• **Pull** 👈 bringing something closer
• **Friction** ✋ force that slows down motion
• **Gravity** 🌎 pulls everything toward Earth

- Forms of energy (kinetic, potential, light, heat, sound)

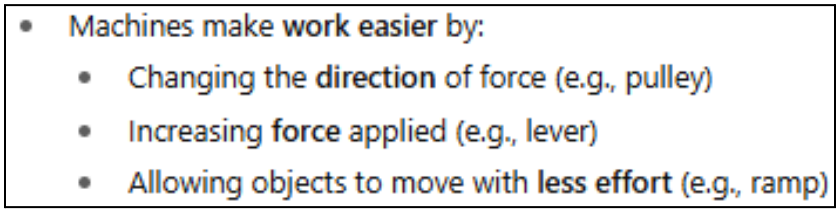
• **Kinetic Energy** ⛹ moving objects
• **Potential Energy** 🎈 stored energy (like stretched rubber band)
• **Light Energy** 💡 from the Sun or lamps
• **Heat Energy** 🔥 from fire, stove, or the Sun
• **Sound Energy** 🎶 from vibrations (music, voices)

- Simple machines (lever, pulley, inclined plane, screw, wedge, wheel and axle)



Reference:https://quizlet.com/138869253/6th-gr-simple-machines-flash-cards/

- How machines reduce effort



Real-Life Example:

Using a pulley to lift a heavy bucket.

Remember This!

- *Machines don't reduce work—they make it easier to do.*

General Topic: Environment and Sustainability

Lesson Overview:

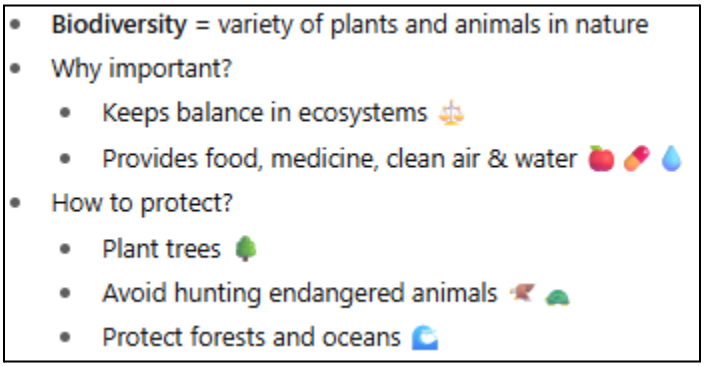
Teaches how to **protect the environment** and use resources wisely.

Key Concepts and Subtopics:

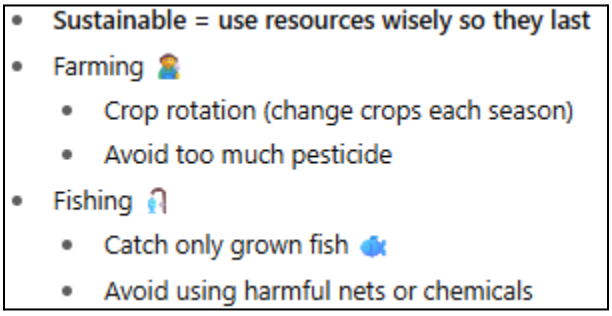
- Reduce, reuse, recycle

Reference: https://www.pinterest.com.au/pin/521573200568184220/

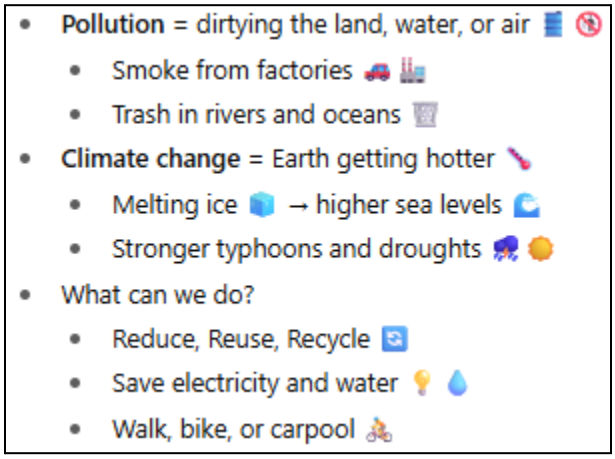
- Protecting biodiversity



- Sustainable farming and fishing



- Effects of pollution and climate change



Real-Life Example:

Planting trees to improve air quality and reduce carbon dioxide.

Remember This!

- *A healthy environment means a healthy future.*