LIFE SCIENCE

The Characteristics of Organisms

animal's basic needs
Air, water, food, and shelter

environment
Everything, both living and nonliving, that surrounds and affects an organism

organism
Any living thing

plant/animal characteristics
Identifiable features that can be used to classify
example: body coverings—hair, feathers, scales; body structures—eyes, ears, tails, arms, feet

plant's basic needs
Air, water, nutrients, and light

Life Cycles of Organisms

appendages
Arms, tails, fins, and legs

learned characteristics
Learned from interactions with environment and cannot be passed on
example: riding a bike, swinging on a swing

life cycles
The stages of an organism's life—beginning of life, growth and development, reproduction, and death; organisms go through life cycles in different ways. Example: Butterflies and beetles go through a process of change—egg > larva > pupa > adult. Humans do not do this. A plant's seed cycle is—seed > germination > seedling > flowering plant.

offspring
The young of a person, animal, or plant; they resemble their parent. Offspring characteristics that are passed on—hair color, eye color, flower color, or number of appendages

Organisms and Their Environment

consumers
Get food from plants
example: animals

food chain
The path of food, from one living thing to another

producers
Make their own food
example: plants

EARTH SCIENCE

Properties of Earth Materials

earth materials
Rocks, soils, water, and gases of the atmosphere (air)

fossils
Preserved clues to what life on Earth and its environment were like long ago

minerals
Make up rocks; properties are color, texture, and hardness

resources
Earth materials that are useful to organisms
example: stone for building, food for growth

soil
Made of weathered rock, decayed plants and animals; properties are color, texture, ability to retain water and to support plant growth

Objects in the Sky

moon
Object in sky that moves around the earth and is visible at night and sometimes in the day

sun
Object in sky around which earth moves; provides light and heat that are necessary for life on earth

Changes in Earth and Sky

erosion
The movement of rock and soil from one place to another, caused by water and wind

moon phases
Repeating monthly pattern of different moon shapes that we see due to the moon's movement around Earth

rapid earth-change processes
Landslides, earthquakes, and volcanoes

sun's apparent movement
Appears to move across our sky in a path that slowly changes over seasons; actually the earth is moving around the sun.

water cycle
Evaporation > condensation > precipitation

weather
Daily and seasonal changes in temperature, wind, and precipitation

weather descriptions and measurement tools
Temperature—thermometer; wind direction—weathervane; wind speed and precipitation—rain gauge

weathering
Slow process that causes rocks to crumble, crack, and break

PHYSICAL SCIENCE

Properties of Objects and Materials

physical change
Change in shape, color, or size, but the substance stays the same.
example: paper cut into pieces, water freezing, ice melting

properties
Characteristics that can be observed or measured, such as size, mass, shape, color, temperature, and magnetism

three states of materials
Solid, liquid, and gas

tools
Used to describe properties—magnifying glass, magnet, rulers, balances, and thermometers

water
Most common earth material; exists in all three (3) states and changes state by heating and cooling

Position and Motion of Objects

force
Any push or pull
example: gravity, friction

motion
A change in the position of an object over time

pitch
The highness or lowness of a sound, which is changed by the rate of vibration; the faster the vibration, the higher the pitch

position of an object
Its location related to another object or place

sound
Produced by vibrating objects
example: your vocal cords, guitar string

vibration
Repeated back and forth movements

Light, Heat, Electricity, and Magnetism

closed electric circuits
Complete conducting path that allows electric current to flow through

conductors
Allow electricity to move through them
example: metals

insulators
Block electrical and heat flow
example: wood, glass

light
Travels in a straight line until it strikes an object

magnets
Attracted to objects made of iron and steel

North and South Poles
Opposite ends of a magnet; like poles repel (push away) (N + N) (S + S); unlike poles attract (N + S).

open circuits
Do not provide a complete path; therefore, electric current will not flow through.

reflection
Light bounces off a mirror.

refraction
Light passes through and bends in a magnifying glass.