



EARTH SCIENCE

MIDDLE SCHOOL STORYLINE



PS 1B/ES UNIT 1: STRUCTURE AND PROPERTIES OF MATTER

Earth is made of matter. Matter is made of particles, takes up space, has mass, and can be found in different states. Combining different types of matter may result in chemical reactions, which are the final focus of this unit.



ES UNIT 2: EARTH'S SYSTEMS; INTERACTIONS BETWEEN MATTER AND ENERGY. PART 1: THE RELATIONSHIP BETWEEN THE SUN, AIR, WATER, & LAND

Energy derived from the sun produces changes in Earth's materials (matter). Energy drives a special relationship between Earth's systems of the atmosphere (air), hydrosphere (water), and lithosphere (land).



ES UNIT 3: EARTH'S SYSTEMS; INTERACTIONS BETWEEN MATTER AND ENERGY. PART 2: EARTH'S WATER

Water, Earth's hydrosphere, is all around. It is in our lakes, rivers, oceans, and even in the air. Water is on the move driven by energy.



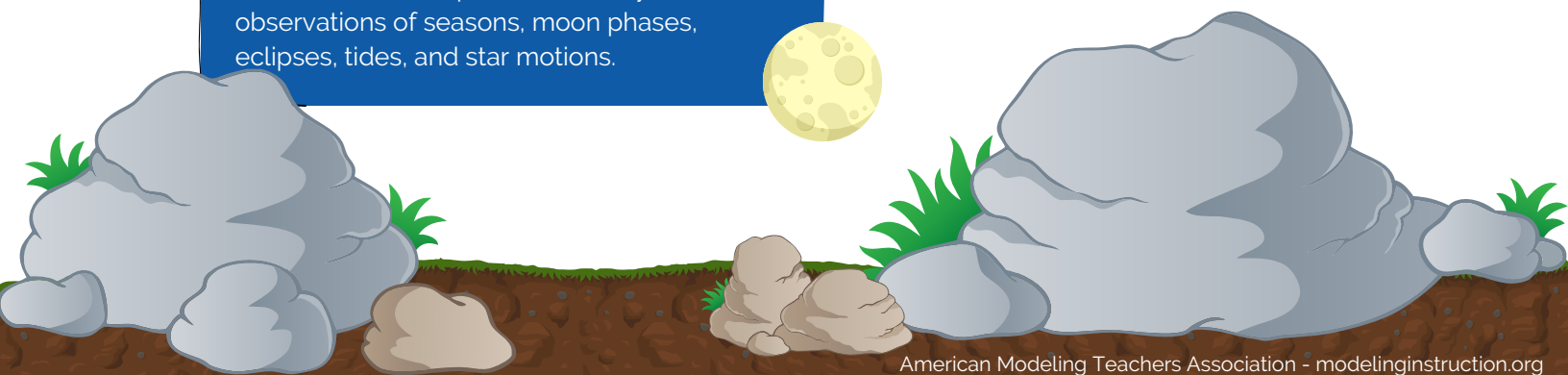
ES UNIT 4: EARTH'S DYNAMIC SURFACE AND INTERIOR

Land, Earth's lithosphere, and its interior form a dynamic system driven by energy.



ES UNIT 5: DANCE OF THE EARTH, SUN, MOON AND STARS

The Earth's systems interact with each other and systems outside of the Earth. These interactions can explain our Earthly observations of seasons, moon phases, eclipses, tides, and star motions.

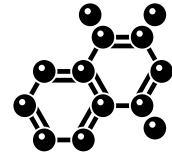




PHYSICAL SCIENCE MIDDLE SCHOOL STORYLINE

PS UNIT 1B

Matter is made of particles, takes up space, has mass, and can be found in different states. Combining different types of matter may result in chemical reactions which are the final focus of this unit.



PS UNIT 2

Motion can be observed and measured. Change in motion is caused by unbalanced forces. When change occurs, energy transfer occurs. There is a relationship between force, motion and energy.



WAVES

Waves provide a mechanism for transferring energy without transferring matter. Waves model a variety of physical systems and can be reflected, absorbed, or transmitted through different materials.



MAGNETISM

The definition of matter can be expanded by observing and describing its magnetic properties. Magnetic forces can both push and pull and can transfer energy between objects or systems.





LIFE SCIENCE

MIDDLE SCHOOL STORYLINE

Water Chemistry & Beyond



Living and nonliving things are made of matter. Matter is made up of particles, takes up space, has mass, and can be found in different states. Two important measurable properties of matter are mass and volume, whose proportions determine the density of a substance.

LS UNIT
01

Life in Bodies of Water



Living organisms require water and are made of matter and can store and transfer energy. These organisms interact with their environment.

LS UNIT
02

Plants and Photosynthesis



Plants are living things. They store and transfer energy. Plants utilize radiated energy from the sun to restructure matter through photosynthesis, enabling them to live and grow.

LS UNIT
03

Ecosystems



Energy flows throughout an ecosystem. This energy flow drives interdependent relationships between the living and nonliving elements of the ecosystem.

LS UNIT
04

Relationships Between Living & Nonliving Things



Living and nonliving things have distinguishable characteristics, and an interesting relationship with three essential elements (carbon, hydrogen, and oxygen).

LS UNIT
05

Heredity and Adaptations



Living things are made of cells which grow and reproduce. Cell division, heredity principles, and the organism's environment influence changes in a species over time.

LS UNIT
06