Peer to Peer Science 2

Unit 1 Weather

Estimated Unit Time Frames	Big Ideas	Essential Questions	Concepts (Know)	Competencies (Do)	Lessons/ Suggested Resources	Vocabulary	Standards/ Eligible Content
20 days	Water Cycle	How does the water cycle work?	Water follows a cycle to create precipitation.	Students should be able to identify evaporation, condensation, runoff, transpiration, and precipitation	TAH Leveled Science Materials	-evaporation -condensation -runoff -transpiration -precipitation	S11A3.3.3a
	Identify weather tools	How do we measure weather?	Different tools are used to measure weather.	Students should be able to use a thermometer, barometer, and anemometer to measure weather.	TAH Leveled Science Materials	-thermometer -barometer -anemometer	S11D2.1.4a S11A2.2.1a
	Identify extreme weather	How does extreme weather conditions affect us?	Extreme weather conditions affect us.	Students should be able to use charts to evaluate and predict the effects of tornadoes, hurricanes, earthquakes, blizzards, thunderstorms, and tsunamis.	TAH Leveled Science Materials	-tornado -hurricane -earthquake -blizzard -thunderstorm -tsunami	S11D2.1.4a S11A2.2.1a

Unit 2 States of Matter

Estimated Unit Time Frames	Big Ideas	Essential Questions	Concepts (Know)	Competencies (Do)	Lessons/ Suggested Resources	Vocabulary	Standards/ Eligible Content
15 days	Identify and discriminate between 3 states of matter	What are the different states of matter?	There are three states of matter.	Students should be able to identify characteristics of solid, liquid, and gas and it's made up of particles.	TAH Leveled Science Materials Bouncy balls in containers experiment	-solid -liquid -gas	S11C1.1.1a
	Properties of matter	How does the state of matter change?	Processes can change the state of matter.	Students should be able to compare and contrast the process and change of states of matter.	TAH Leveled Science Materials	-freeze -melt -evaporation -condensation -deposition -sublimation	S11C1.1.1a

Unit 3 Earth

Estimated Unit Time Frames	Big Ideas	Essential Questions	Concepts (Know)	Competencies (Do)	Lessons/ Suggested Resources	Vocabulary	Standards/ Eligible Content
25 days	Identify landforms	How are different landforms made?	There are different landforms on Earth.	Students should be able to identify volcanic eruptions and mountain building, erosion and coastline changes.	TAH Leveled Science Materials	-volcanic eruptions -mountain building -erosion -coastline changes	S11D1.1.3a
	Label and categorize renewable resources	What is the difference between renewable and	Wind, solar, and hydroelectric are renewable resources.	Students should be able to identify the impact of renewable and	TAH Leveled Science Materials	-renewable resource -nonrenewable resource	S11C2.2.3a

		nonrenewable resources?	Coal, oil, and natural gas are non-renewable resources.	nonrenewable resources.			
	Pollution	What is pollution?	Pollution is the presence into the environment of a substance or thing that has harmful or poisonous effects.	Students should be able to identify human processes that affect pollution.	TAH Leveled Science Materials	-pollution -landfill	S11D1.2.2a
Unit 4 Space							
Estimated Unit Time Frames	**Big Ideas**	**Essential Questions**	**Concepts (Know)**	**Competencies (Do)**	**Lessons/ Suggested Resources**	**Vocabulary**	**Standards/ Eligible Content**
35 days	Identify Earth, sun, moon, and stars	What is in our galaxy?	Our galaxy consists of the Earth, sun, moon, planets, and stars.	Students should be able to identify the Earth, sun, moon, and stars.	TAH Leveled Science Materials	-star -planet	S11A3.3.3a
	Identify planets and basic facts	What are the characteristics of the planets?	Our galaxy consists of the Earth, sun, moon, planets, and stars.	Students should be able to use observations about the solar system.	TAH Leveled Science Materials	-orbit -galaxy	S11A3.3.3a
	Earth's rotation and revolution	How does the Earth's rotation and revolution affect us?	Earth's rotation and revolution creates day and night and different seasons.	Students should be able to use observation to explain the effects of rotation and revolution.	TAH Leveled Science Materials	-rotation -revolution -night -day	S11A3.3.3a
	Phases of the moon	What are the phases of the moon?	The moon has different phases.	Students should be able to use observations to predict the	TAH Leveled Science Materials	-waxing -waning -gibbous -new moon -full moon	S11A3.3.3a

				different phases of the moon.			
Unit 5 Living & Non Living							
Estimated Unit Time Frames	**Big Ideas**	**Essential Questions**	**Concepts (Know)**	**Competencies (Do)**	**Lessons/ Suggested Resources**	**Vocabulary**	**Standards/ Eligible Content**
50 days	Ecosystems	How does competition, predation, and mutualism affect an ecosystem?	Interactions within an ecosystem affects the food chain.	Students should be able to identify the interactions among living components of an ecosystem.	TAH Leveled Science Materials	-competition -predation -mutualism	S11B3.1.3a S11A3.1.2a
	Biomes	What are the differences in the biomes?	A biome is a large community of vegetation and wildlife adapted to a specific climate.	Students should be able to compare the similarities and differences in the Earth's major biomes (e.g., tropical rain forest vs. tundra, tundra vs. desert).	TAH Leveled Science Materials	-biome	S11B3.1.4a S11A3.1.2a
	Biomes	What are the different plants and animals in the different biomes?	A biome is a large community of vegetation and wildlife adapted to a specific climate.	Students should be able to identify the similarities and differences in animals or plants that inhabit the major biomes (e.g., tropical rain forest, tundra, and desert).	TAH Leveled Science Materials Create a biome	-rainforest -tundra -desert	S11B3.1.4b S11A3.1.2a
	Animal habitats and diet	How do animals' habitats and diet change?	Animals live in different habitats and have diets based on their	Students should be able to recognize the result of	TAH Leveled Science Materials		S11B3.2.3a

			habitats and many factors can affect this.	catastrophic events on habitats and the animals or plants living there (e.g., forest fire, volcanic eruption, tornado).			
	Plant life cycle	What is the cycle of a plant?	The plant goes through different phases during its life cycle.	Students should be able to identify the different parts of the plant's life cycle.	TAH Leveled Science Materials Plant a seed - observe, document, use charts/graphs to document changes	-sprout -seedling -flower -fruit -seed	S11A3.3.3a
	Pollination and germination	What is pollination and germination?	The plant goes through different phases during its life cycle.	Students should be able to explain what pollination and germination is.	TAH Leveled Science Materials	-pollination -germination	S11A3.3.3a
	Photosynthesis	Why is photosynthesis important?	The plant goes through different phases during its life cycle.	Students should be able to identify and explain why photosynthesis is important.	TAH Leveled Science Materials	-photosynthesis	S11A3.3.3a
	Identify basic organs and functions	What is the function of our organs?	Organs have specific functions.	Students should be able to identify a variable that changes the function of each organ.	TAH Leveled Science Materials Model pumping heart experiment	-heart -lungs -brain -skin -stomach -bladder -liver -kidneys	S11A3.1.2a S11A1.3.2a
	Systems in the body	How do our organs work together?	Organs work together to create systems in our bodies.	Students should be able to identify a variable that changes the circulatory, skeletal,	TAH Leveled Science Materials	-circulatory -skeletal -muscular -nervous	S11A3.1.2a S11A1.3.2a

				muscular, and nervous systems.			
	Comparing life cycles of organisms	Do all living things have the same life cycle?	Living organisms have different life cycles.	Students should be able to compare and contrast different life cycles.	TAH Leveled Science Materials		S11A3.3.3a

Unit 6 Motion & Force

Estimated Unit Time Frames	Big Ideas	Essential Questions	Concepts (Know)	Competencies (Do)	Lessons/ Suggested Resources	Vocabulary	Standards/ Eligible Content
30 days	Human power vs. machine power	What is the difference between human power and machine power?	Human power is energy that is produced from the human body. Machine power is energy that is produced from a machine.	Students should be able to identify how a specific technology extends human abilities and enhances precision.	TAH Leveled Science Materials Use microscope/telescope to show how much more can be seen than just with naked eye	-GPS -xray -microscope -telescope	S11A2.2.2a
	Balanced and unbalanced force	What are balanced and unbalanced forces?	Balanced forces result in no motion. Unbalanced forces result in motion.	Students should be able to compare and contrast balanced and unbalanced forces and determine the relative speed, distance, or time an object travels.	TAH Leveled Science Materials Balanced and unbalanced experiment	-balanced force -unbalanced force	S11C3.1.3a
	Friction and gravity	How does friction and gravity work?	Gravity is the force that attracts a body toward the center of the earth. Friction is the resistance that one surface	Students should be able to identify the outcome of friction and gravity.	TAH Leveled Science Materials Friction and gravity experiment - make predictions	-friction -gravity	S11C3.1.1a

			or object encounters when moving over another.				