Peer to Peer Science 1

Unit 1 Weather

Estimated Unit Time Frames	Big Ideas	Essential Questions	Concepts (Know)	Competencies (Do)	Lessons/ Suggested Resources	Vocabulary	Standards/ Eligible Content
20 days	Identify weather conditions	How does weather affect us?	There are different weather conditions that affect us.	Students should be able to identify different weather conditions.	TAH Leveled Science Materials	-rain -sleet -snow -fog -sun -wind	S8A1.3.2a
	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 Water Cycle Diagram	-evaporation -condensation -runoff -transpiration -precipitation	S8A1.3.2a S8A2.1.1a S8A3.1.5b S8A3.3.2a S8D1.3.1a
	Clouds	How do clouds form?	Different types of clouds create different weather conditions.	Students should be able to identify how a cloud forms and cumulus, cirrus, stratus, nimbostratus, cumulonimbus.	TAH Leveled Science Materials Cloud Lab	-cumulus -cirrus -stratus -nimbostratus- cumulonimbus	S8D1.3.1a S8D2.1.3a
	Identify weather tools	How do we measure weather?	Different tools are used to measure weather.	Students should be able to identify a thermometer, barometer, and	TAH Leveled Science Materials	-thermometer -barometer -anemometer	S8A2.1.1a S8A2.2.1 S8A2.2.3a

				anemometer to measure weather.	Explore using different weather tools		
	Identify extreme weather	How does extreme weather conditions affect us?	Extreme weather conditions affect us.	Students should be able to identify the effects of tornadoes, hurricanes, earthquakes, blizzards, thunderstorms, and tsunamis.	TAH Leveled Science Materials Tornado in a bottle lab	-tornado -hurricane -earthquake -blizzard -thunderstorm -tsunami	S8A2.1.1a
	Identify characteristics of each season	What are the characteristics of each season?	There are different weather conditions in each season.	Students should be able to identify characteristics of autumn, spring, summer, and winter.	TAH Leveled Science Materials 4 seasons drawing	-fall (autumn) -spring -summer -winter	S8A2.1.1a S8A3.3.2a
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.	TAH Leveled Science Materials	-solid -liquid -gas	S8A1.3.2a S8A2.1.1a S8C1.1.2a
	Properties of matter	How does the state of matter change?	Processes can change the state of matter.	Students should be able to identify the process and change of states of matter.	TAH Leveled Science Materials Ice experiment	-freeze -melt -evaporation -condensation -deposition -sublimation	S8A1.3.2a S8A2.1.1a S8C1.1.2a

Unit 3 Earth							
Estimated Unit Time Frames	**Big Ideas**	**Essential Questions**	**Concepts (Know)**	**Competencies (Do)**	**Lessons/ Suggested Resources**	**Vocabulary**	**Standards/ Eligible Content**
35 days	Identify landforms	How are different landforms made?	There are different landforms on Earth.	Students should be able to identify mountains, hills, plateaus, plains, canyons, valleys, and basins.	TAH Leveled Science Materials	-mountains -hills -plateaus -plains - canyons -valleys -basins	S8D1.1.2a
	Identify layers of Earth	What is the Earth made of?	The Earth is made up of different layers.	Students should be able to identify the crust, mantle, inner and outer core.	TAH Leveled Science Materials	-crust -mantle -inner core -outer core	S8D1.1.2a
	Label and categorize renewable resources	What is the difference between renewable and nonrenewable resources?	Wind, solar, and hydroelectric are renewable resources. Coal, oil, and natural gas are non-renewable resources.	Students should be able to compare and contrast renewable and nonrenewable resources.	TAH Leveled Science Materials	-renewable resource -nonrenewable resource	S8C2.2.3a S8D1.2.1a
	Weathering, erosion, and deposition	How does the Earth change?	Weathering, erosion, and deposition change Earth's land.	Students should be able to define weathering, erosion, and deposition.	TAH Leveled Science Materials	-weathering -erosion -deposition	S8A2.1.1a S8D1.1.2a
	Pollution	What is pollution?	Pollution is the presence into the environment of a substance or thing that has harmful or	Students should be able to define pollution and pollution causes.	TAH Leveled Science Materials	-pollution -landfill	S8B3.3.3a

			poisonous effects.				
	Waste Management	How can we help reduce pollution?	Recycling and composting can help reduce pollution.	Students should be able to identify strategies to help reduce pollution.	TAH Leveled Science Materials Recycle sorting activity	-recycle -composting	S8B3.3.3a
Unit 4 Space							
Estimated Unit Time Frames	**Big Ideas**	**Essential Questions**	**Concepts (Know)**	**Competencies (Do)**	**Lessons/ Suggested Resources**	**Vocabulary**	**Standards/ Eligible Content**
30 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	S8A3.3.2a
	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 compare and contrast planets.	TAH Leveled Science Materials	-orbit -galaxy	S8A3.3.2a
	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 describe the effects of rotation and revolution.	TAH Leveled Science Materials	-rotation -revolution -night -day	S8A3.3.2a
	Phases of the moon	What are the phases of the moon?	The moon has different phases.	Students should be able to describe the different phases of the moon.	TAH Leveled Science Materials Lunar calendar observation	-waxing -waning -gibbous -new moon -full moon	S8A2.1.1a S8A3.1.5b S8A3.3.2a

Unit 5 Living & Non Living							
Estimated Unit Time Frames	**Big Ideas**	**Essential Questions**	**Concepts (Know)**	**Competencies (Do)**	**Lessons/ Suggested Resources**	**Vocabulary**	**Standards/ Eligible Content**
40 days	Identify living things and non-living things	What is the difference between living and nonliving?	Living things must grow and develop, use energy, reproduce, be made of cells, respond to its environment, and adapt.	Students should be able to compare and contrast living and nonliving.	TAH Leveled Science Materials	-living -nonliving	S8B1.1.3a
	Characteristics of living things	What are the characteristics of living things?	Living things must grow and develop, use energy, reproduce, be made of cells, respond to its environment, and adapt.	Students should be able to describe characteristics of living things.	TAH Leveled Science Materials		S8B1.1.3a S8B2.1.1a
	Basic needs of living things	What are the basic needs for living things?	Living things must grow and develop, use energy, reproduce, be made of cells, respond to its environment, and adapt.	Students should be able to identify basic needs of living things.	TAH Leveled Science Materials		S8B1.1.3a S8B2.1.1a S8B3.2.1a
	Identify animal habitats and diet	How do animals' habitats and diet differ?	Animals live in different habitats and have diets based on their habitats.	Students should be able to compare and contrast animals' habitats and diets.	TAH Leveled Science Materials Create an animal in a habitat project		S8A1.3.2a S8B1.1.3a S8B2.1.1a S8B3.1.2a S8B3.1.3a

							S8B3.2.1a
	Food Chain	What is a food chain?	Food chain consists of predator and prey and the hierarchy of animals.	Students should be able to identify animals on the food chain.	TAH Leveled Science Materials Pick a habitat - create a food chain	-predator -prey -herbivore -carnivore -omnivore	S8A1.3.2a S8B3.1.1a S8B3.1.3a
	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 seeds - observe growth	-sprout -seedling -flower -fruit -seed	S8A2.1.1a S8A3.1.5b S8A3.3.2a
	5 senses	What are the 5 senses?	Humans have 5 senses to collect information about our environment that are interpreted by the brain.	Students should be able to identify the 5 senses.	TAH Leveled Science Materials 5 senses experiment	-smell -touch -taste -hearing -sight	S8A2.1.1a
	Identify basic organs and functions	What is the function of our organs?	Organs have specific functions.	Students should be able to identify the function of each organ.	TAH Leveled Science Materials	-heart -lungs -brain -skin -stomach -bladder -liver -kidneys	S8A1.3.2a
	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 which organs are in the circulatory, skeletal, muscular, and nervous systems.	TAH Leveled Science Materials Create a model of the system	-circulatory -skeletal -muscular -nervous	S8A1.3.2a S8A3.1.5b S8A3.3.2a
	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		S8A1.3.2a S8A2.1.1a S8A3.3.2a

Unit 6 Motion & Force

Estimated Unit Time Frames	Big Ideas	Essential Questions	Concepts (Know)	Competencies (Do)	Lessons/ Suggested Resources	Vocabulary	Standards/ Eligible Content
35 days	Pushing vs. pulling	What is pushing and pulling?	Pushing and pulling are opposite forces.	Students should be able to compare and contrast pulling and pushing.	TAH Leveled Science Materials Pushing / pulling experiment	-pushing -pulling	S8C3.1.1a
	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 compare and contrast human power and machine power.	TAH Leveled Science Materials	-human power -machine power	S8A2.2.3a S8A3.1.5a
	Identify and discriminate simple machines	What are some machines that help provide convenience?	Machines are used to help humans make tasks more convenient.	Students should be able to identify machines such as microwaves and computers.	TAH Leveled Science Materials Presentation: each group select a machine that helps make tasks easier		S8A2.2.3a
	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.	TAH Leveled Science Materials Balanced and unbalanced experiment	-balanced force -unbalanced force	S8A2.1.1a
	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 friction and gravity.	TAH Leveled Science Materials Friction and gravity experiment	-friction -gravity	S8A2.1.1a S8A2.2.1 S8C3.1.1a

			or object encounters when moving over another.				
	Patterns in motion	How do magnets work?	Magnets attract and repel.	Students should be able to compare and contrast the motions attract and repel.	TAH Leveled Science Materials Magnet experiment	-attract -repel	S8A2.1.1a S8C3.1.1a