UNIT TITLE:					**GRADE LEVEL: 4th**
Date: **Day 1-26**					

Standards	**Learning Targets**	**Critical vocabulary**	**Target Type**	**Resources**
Structure and Function ***Classifying Living Things*** *SC-04-3.4.2 Students should understand that things in the environment are classified as living, nonliving, and once living. Living things differ from nonliving things. Organisms are classified into groups by using various characteristics (e.g., body coverings, body*	**I can classify organisms as living , once living , non living, vertebrate, invertebrate, herbivore, carnivore, omnivore.**	**Living, nonliving, once living, amphibians, reptiles, fish, mammals, birds, life cycle, reproduction, birth, growth, development, heredity, inherited traits, learned traits, instinct, photosynthesis, chlorophyll, pollination, germination, fertilization, seed, cells(plants and animal)**	**reasoning**	**Text book** **Smart board** **a-z reader** **discovery education** **various websites** **hands on activities**

structures). •				
Structure and Function **<u>SC-04-3.4.1</u> Students will** • **compare the different structures and functions of plants and animals that contribute to the growth, survival and reproduction of the organisms;** • **make inferences about the relationship between structure and function in organisms.**	**I can observe structures and functions.** **I can explain How a structure functions to help and organism survive.**	**inherited traits, learned traits, instinct**	**reasoning**	

SC-04-3.4.3 Students will compare a variety of life cycles of plants and animals in order to classify and make inferences about an organism.	**I can describe life cycles of organisms.** **I can compare life cycles of different organisms.** **I can draw a conclusion about populations of organisms.**		**Reasoning** **reasoning**	**Seeds,**
Inherited and Learned Characteristics **SC-04-3.4.4 Students will identify some characteristics of organisms that are inherited from the parents and others that are learned from interactions with the**	**I can identify how organisms are like and different from their parents.** **I can compare characteristics and if they are inherited or learned.**		**Knowledge** **Reasoning**	

environment.				
Interdependence ***And energy transfer*** ***Date*** ***Sept-October***				
Environments **<u>SC-04-4.7.1</u> Students will make predictions and/or inferences based on patterns of evidence related to the survival and reproductive success of organisms in particular environments.**	**I can identify the characteristics of ecosystems** **I can describe meets the basic needs of an organism.** **I can describe how some structures and behaviors helps organisms survive in an environment.**	**Environment, ecosystem, community, population, habitat, adaptation, camouflage, mimicry, predator, prey, energy transfer**	**Knowledge** **Knowledge** **Knowledge**	**Owl pellets,** **Seeds, plants**

Beneficial and Harmful Environmental Change **<u>SC-04-4.7.2</u> Students will** • **describe human interactions in the environment where they live;** **classify the interactions as beneficial or harmful to the environment using data/evidence to support conclusions**	**I can describe the effects of environmental changes.** **I can describe how humans impact where they live.** **I can classify changes as beneficial or harmful to ecosystems.** **I can use evidence to support or defend environmental issuses**	**Interaction, pollution, environment, recycle, renewable, resource, nonrenewable, resource, conservation, adaptation, survival**	**Knowledge** **Knowledge** **Reasoning** **Product**	**4 H Rebecca Konpeka** **ASCS office** **Project wild** **Project wet** **Argumentative writing piece.**
Food Chains **<u>SC-04-4.6.1</u> Students will analyze patterns and make generalizations about the basic relationships**	**I can describe the relationship between organisms in an environment.** **I can create a**	**food web, food chain, consumer, producers, decomposers**	**Knowledge**	**Owl pellets** **Terrarium**

of plants and animals in an ecosystem (food chain).	**model of an ecosystem.** **I can explain how energy is transferred between organisms.**		**Product** **Knowledge**	
Sun's Light and Heat **<u>SC-04-4.6.2</u> Students will** • **analyze data/evidence of the Sun providing light and heat to earth;** • **use data/evidence to substantiate the conclusion that the Sun's light and heat are necessary to sustaining life on Earth.**	**I can describe how the sun provides energy for all living things.**	**Photosynthesis, producers, energy transfer, radiation, heat and light energy.**	**Knowledge**	

Biological Change ***Day 44-57***				
Fossils **<u>SC-04-3.5.1</u> Students will use representations of fossils to** • **draw conclusions about the nature of the organisms and the basic environments that existed at the time;** **make inferences about the relationships to organisms that are alive today**	**I can use many sources to draw conclusions about fossils.** **I can draw conclusion about the functions of structures in fossils.** **I can make inferences about fossils environment.** **I can find similarities between fossils**	**Fossil, imprint, cast , mold, relative age**	**Reasoning** **Reasoning** **Reasoning** **Reasoning**	**Fossils,** **Plaster paris, clay, shells,**

	and organisms living today. **I can use fossils to explain how an organism changed over time.** **I can use fossils to explain how an environment changed over time.**		**Knowledge** **Knowledge**	
Earth and Universe ***Days 58-84***	**I**			
SC4-2.3.1 – Students will classify earth materials by the way that they are used. **Students will explain how their properties make them useful for different purposes.**	**I can observe and classify earth materials by their properties.** **I can classify earth materials by the ways they are used.**	**Luster, texture, hardness, streak, Mohs Scale, igneous, metamorphic, sedimentary, heat, pressure, cementation, compaction**	**Skill** **Reasoning**	**Rock Classification** **Walk Around**

SC4-2.3.2 – **Students will describe and explain consequences of changes to the surface of the earth (including some common fast changes and some slow changes).**	**I can explain how their properties make them useful for different purposes.** **I can use models to interpret real world information.** **I can describe how fast and slow processes change the surface of earth.** **I can explain some consequences of changes to the surface of the earth.**	**Weathering, erosion, landslide, glacier, volcano, earthquake**	**Knowledge** **Reasoning** **Knowledge** **Knowledge**	**Volcano** **Kids Discovery** **Water Tables** **Weathering Lab**

SC4-2.3.4 – Students w ***Earth-Sun System*** **<u>SC-04-2.3.4</u> Students will identify patterns, recognize relationships, and draw conclusions about the Earth-Sun system by interpreting a variety of representations/models (e.g., diagrams, sundials, distance of sun above horizon) of the sun's apparent movement in the sky.**	**I can describe the earth's apparent path throughout a day.** **I can interpret models to explain day and night.** **I can use models to draw conclusions about the earth-sun system.**	**Apparent motion, phases, tilt, seasons, rotation, revolution, orbit, axis**	**Knowledge** **Reasoning** **Reasoning**	**Sun Dial** **Flashlight** **Globes** **Styrofoam Balls**

Day 85-end of year				
<u>SC-04-2.3.3</u> Students will represent and interpret weather and weather data in order to make generalizations and/or predictions about weather changes from day to day and over seasons.	**I can observe weather patterns and changes over time. I can collect and organize weather data.** **I can make predictions about weather changes from day to day and over seasons based on weather data.**	**Seasons, weather, weather data (temperature, pressure, precipitation, wind speed, wind direction), rain gauge, thermometer, barometer, weather vane, hygrometer, humidity, climate, forecast, front, warm front, cold front, meteorologist**	**Skills** **Reasoning**	**Daily weather observation**
<u>SC-04-1.1.1</u> **Students will explain how matter, including water, can be changed from one state to another.**	**I can identify matter as solid, liquid, or gas using physical properties.** **I can classify states of matter**	**Solid, liquid, gas, evaporation, condensation, precipitation, water cycle, sun, energy, snow, sleet, hail, rain**	**Knowledge** **Reasoning**	**Water Cycle** **Mr. Parr Songs** **Ice**

	using physical properties. **I can explain how adding and taking away heat can change the state of matter.** **I can explain how matter changes from one state to another.** **I can compare data in order to predict patterns.**		**Knowledge** **Knowledge** **Reasoning**	
<u>Energy Transformations</u> **Day 104-121**				

<u>SC-04-4.6.5</u> Students will • **identify ways that heat can be produced (e.g. burning, rubbing) and properties of materials that conduct heat better than others ;** • **describe the movement of heat between objects.**	**I can identify sources of heat.** **I can investigate and describe how heat moves between objects.**	**Heat, conduction, convection, radiation, insulator, conductor, friction, freezing and boiling point**	**Knowledge** **skill**	**Convection Spinners** **Observing various heat sources.** **Insulator/Conductor from Smart Exchange**
<u>SC-04-4.6.4</u> Students will • **analyze models/representations of light in order to generalize about the behavior of light.** • **represent the path**	**I can identify how light travels.** **I can make predictions about the behavior of**	**Transparent, translucent, opaque, reflect, refract, absorb, angles of reflection, prism**	**Knowledge** **Reasoning**	**Light Labs**

of light as it interacts with a variety of surfaces (reflecting, refracting, absorbing).	**light.** **I can describe how light interacts with a variety of surfaces.**		**Knowledge**	
Sound **<u>SC-04-1.2.3</u> Students will:** • **explain that sound is a result of vibrations, a type of motion;** • **describe pitch (high,**	**I can explain how vibrations affect pitch.** **I can draw conclusions about what affects motion and sound.**	**Motion, pitch, sound wave, vibration, volume**	**Knowledge** **Reasoning**	

low) as a difference in sounds that are produced and relate that to the rate of vibration.				

SC-04-4.6.3 Students will evaluate a variety of models/representations of electrical circuits (open, closed, series, and/or parallel) to • **make predictions related to changes in the system;** **compare the properties of conducting and non-conducting materials**	**I can design a variety of models of electrical circuits.** **I can classify a diagram of circuits.**	**Parallel circuit, series circuit, circuit, open and closed circuit, conductors, insulators, electricity, electrical current**	**Product** **Reasoning**	**Hook up circuits** **Bulbs** **Batteries** **Wire** **Energy Stick**
SC-04-1.2.1 Students will interpret or represent data related to an object's straight-line motion in order to make inferences and predictions of changes in position and/or time	**I can measure and record changes in motion.**	**Distance, force, motion, mass, push, pull, acceleration, deceleration, velocity,**	**Skill**	**Roller Coaster** **Car Ramps** **Marble Tracks** **Soap Box Derby**

SC-04-1.2.2 Students will infer causes and effects of pushes and pulls (forces) on objects based on representations or interpretations of straight-line movement/motion in charts, graphs, and qualitative comparisons	**I can investigate the effects of adding or removing mass to an object on its motion.** **I can explain how force causes movement.** **I can use tools to collect data.**		**Skill** **Knowledge** **Skill**	