KNOX COUNTY PUBLIC SCHOOLS
Believe. Achieve. Succeed.

Course: Science
Grade: 3rd

Standards Website		
1st Nine Weeks - Life Cycles and Traits, Environment and Living Things **Formative:** Exit Tickets, Projects, Presentations **Summative:** Edulastic Assessment, Quizzes		
	Standards	**Learning Target**	**Notes:**
	3-LS3.1 Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms. *Patterns are the similarities and differences in traits shared between offspring and their parents, or among siblings. Emphasis is on organisms other than humans. Assessment does not include genetic mechanisms of inheritance and prediction of traits. Assessment is limited to nonhuman examples.*	**I can analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.** *Today we will examine inheritance of traits in order to match parents with their offspring.*	
	3-LS 3.2 Use evidence to support the explanation that a trait can be influenced by the environment. *Examples of the environment affecting a trait could include that normally tall plants grown with insufficient water are stunted, and a pet dog that is given too much food and little exercise may become overweight.*	**I can use evidence to support the explanation that a trait can be influenced by the environment.** *Today we will examine how environment affects the traits that an organism develops.*	
	3-LS 1.1 - Develop Models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death. *Changes organisms go through during their life form a pattern. Assessment of plant life cycles is limited to those of flowering plants. Assessment does not include details of human reproduction.*	**I can develop models to describe that organisms have unique and diverse life cycles, yet they all share common stages of birth, growth, reproduction, and death.** *Today we will examine how come characteristics of organisms are influenced by both their inheritance and their environment.*	
	3-LS 4.2 Use evidence to construct an explanation for how the variation in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing. *Examples of cause-and-effect relationships could be that plants that have larger thorns than other plants may be less likely to be eaten by predators, and animals that have better camouflage*	**I can use evidence to construct an explanation for how the variation in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.** *Today we will learn about differences*	

	coloration than other animals may be more likely to survive and therefore more likely to leave offspring.	*in characteristics between individuals of the same species.*	
	3-LS 1.1 - Develop Models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death. *Changes organisms go through during their life form a pattern. Assessment of plant life cycles is limited to those of flowering plants. Assessment does not include details of human reproduction.*	**I can develop models to describe that organisms have unique and diverse life cycles, yet they all share common stages of birth, growth, reproduction, and death.** *Today we will compare the similarities and differences in traits between two plants and animals.*	
	3-LS 1.1 - Develop Models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death. *Changes organisms go through during their life form a pattern. Assessment of plant life cycles is limited to those of flowering plants. Assessment does not include details of human reproduction.*	**I can develop models to describe that organisms have unique and diverse life cycles, yet they all share common stages of birth, growth, reproduction, and death.***Today we will learn about the growth and development of organisms.*	
	3-LS 1.1 - Develop Models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death. *Changes organisms go through during their life form a pattern. Assessment of plant life cycles is limited to those of flowering plants. Assessment does not include details of human reproduction.*	**I can develop models to describe that organisms have unique and diverse life cycles, yet they all share common stages of birth, growth, reproduction, and death.** *Today we will discover that plants and animals have unique and diverse life cycles.*	
	3-LS 1.1 - Develop Models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death. *Changes organisms go through during their life form a pattern. Assessment of plant life cycles is limited to those of flowering plants. Assessment does not include details of human reproduction.*	**I can develop models to describe that organisms have unique and diverse life cycles, yet they all share common stages of birth, growth, reproduction, and death.***Today we will investigate the growth and development of organisms, including animals without backbones.*	
	3-LS 1.1 - Develop Models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death. *Changes organisms go through during their life form a pattern. Assessment of plant life cycles is limited to those of flowering plants. Assessment does not include details of human reproduction.*	**I can develop models to describe that organisms have unique and diverse life cycles, yet they all share common stages of birth, growth, reproduction, and death.** *Today we will understand that plants and animals have unique and diverse life cycles.*	
	3-LS2-1. Construct an argument that some animals form groups that help members survive.	**I can construct an argument that some animals form groups that help members survive.** *Today*	

		we will construct an argument that animals live in groups for survival.	
1 Day For Review			
Science **District Common Assessment #1** **Date:_____**			**FEEDBACK FORM**
2nd Nine Weeks - Life Cycles and Traits, Environment and Living Things **Formative:**Exit Tickets, Projects, Presentations **Summative:** Edulastic Assessment, Quizzes			
	Standards	**Learning Target**	**Notes:**
	3-LS 2-1 Construct an argument that some animals form groups that help members survive.	**I can construct an argument that some animals form groups that help members survive.***Today we will examine how being part of a group helps animals defend themselves.*	
	3-LS 2-1 Construct an argument that some animals form groups that help members survive.	**I can construct an argument that some animals form groups that help members survive.** *Today we will explore why animals live in groups and understand their social interactions and group behavior.*	
	3-LS4-4. Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change. *Examples of environmental changes could include changes in land characteristics, water distribution, temperature, food, and other organisms. Assessment is limited to a single environmental change. Assessment does not include the greenhouse effect or climate change.*	**I can say if a solution to a problem caused by changes in the environment is a good idea or not. Like if the place where plants and animals live changes, I can decide if the solution will help the new kinds of plants and animals that move in.** *Today we will examine how changes to the environments and interpret ecosystem dynamics.*	
	3-LS4-4. Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change. *Examples of environmental changes could include changes in land characteristics, water distribution, temperature, food, and other organisms. Assessment is limited to a single environmental change. Assessment does not include the greenhouse effect or climate change.*	**I can say if a solution to a problem caused by changes in the environment is a good idea or not. Like if the place where plants and animals live changes, I can decide if the solution will help the new kinds of plants and animals that move in.***Today we will examine how a change in a habitat affects the organisms living there.*	

	3-LS 4-1 Analyze and interpret data from fossils to provide evidence of the organism and the environments in which they lived long ago.	**I can look at old fossils and figure out what kind of living things they were and what the places they lived in were like a long time ago.** *Today we will explore how fossils provide evidence about past organisms and the nature of the environment they lived in.*	
	3-LS 4-1 Analyze and interpret data from fossils to provide evidence of the organism and the environments in which they lived long ago.	**I can look at old fossils and figure out what kind of living things they were and what the places they lived in were like a long time ago.** *Today we will discover how fossils can provide a lot of information about a type of organism and also provide evidence about the nature of the organism's environment.*	
	3-LS 4-3 Construct an argument with evidence that in a particular habitat some organisms can survive less well, and some cannot survive at all. *Examples of evidence could include needs and characteristics of the organisms and habitats involved. The organisms and their habitat make up a system in which the parts depend on each other.*	**I can explain why some animals and plants have a hard time living in a certain place(habitat), while others can't live there at all. I'll use facts and examples to support my reasons.** *Today we will examine how when the environment changes, some organisms die.*	
1 Day For Review			
Science District Common Assessment #2 Date:_____			**FEEDBACK FORM**
3rd Nine Weeks - Weather and Climate, Forces and Motion **Formative:** Exit Tickets, Projects, Presentations **Summative:** Edulastic Assessment, Quizzes			
	Standards	**Learning Target**	**Notes:**
	3-ESS2-1 Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season. *Examples of data could include average temperature, precipitation, and wind direction. Assessment of graphical displays is limited to pictographs and bar graphs. Assessment does not include climate change.*	**I can look at the patterns in rocks and fossils found in different layers of rock to explain how the landscape has changed over time.** *Today we will explain record patterns of the weather across different times and areas to make predictions about weather.*	
	3-ESS2-1 Represent data in tables and graphical displays to describe typical weather conditions expected during a	**I can look at the patterns in rocks and fossils found in different layers of rock to explain how**	

	particular season. *Examples of data could include average temperature, precipitation, and wind direction. Assessment of graphical displays is limited to pictographs and bar graphs. Assessment does not include climate change.*	**the landscape has changed over time.** *Today we will make predictions about what kind of weather might happen next.*	
	3-ESS2-1 Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season. *Examples of data could include average temperature, precipitation, and wind direction. Assessment of graphical displays is limited to pictographs and bar graphs. Assessment does not include climate change.*	**I can look at the patterns in rocks and fossils found in different layers of rock to explain how the landscape has changed over time.** *Today we will build anemometers to measure wind speed for several dats and record patterns across different times.*	
	3-ESS2-1 Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season. *Examples of data could include average temperature, precipitation, and wind direction. Assessment of graphical displays is limited to pictographs and bar graphs. Assessment does not include climate change.*	**I can look at the patterns in rocks and fossils found in different layers of rock to explain how the landscape has changed over time.** *Today we will build rain gauges to measure rainfall and record patterns for five days.*	
	3-ESS2-1 Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season. *Examples of data could include average temperature, precipitation, and wind direction. Assessment of graphical displays is limited to pictographs and bar graphs. Assessment does not include climate change.*	**I can look at the patterns in rocks and fossils found in different layers of rock to explain how the landscape has changed over time.** *Today we will make predictions about what kind of weather might happen next.*	
	3-ESS2-1 Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season. *Examples of data could include average temperature, precipitation, and wind direction. Assessment of graphical displays is limited to pictographs and bar graphs. Assessment does not include climate change.*	**I can look at the patterns in rocks and fossils found in different layers of rock to explain how the landscape has changed over time.** *Today we will graph data in a bar graph.*	
	3-ESS2-2 Obtain and combine information to describe climates in different regions of the world.	**I can look at maps that show Earth's features, like mountains and boundaries between continents, and describe what I see, like where the mountains are and how continents are divided.** *Today we will find out how climate describes a range of an area's typical weather conditions.*	
	3-ESS3-1 Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard. *Examples of design solutions to weather-related hazards could*	**I can look at maps that show Earth's features, like mountains and boundaries between**	

	include barriers to prevent flooding, wind-resistant roofs, and lightning rods.	**continents, and describe what I see, like where the mountains are and how continents are divided.** *Today we will investigate how a variety of natural hazards result from natural processes.*	
	3-ESS3-1 Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard. *Examples of design solutions to weather-related hazards could include barriers to prevent flooding, wind-resistant roofs, and lightning rods.*	**I can look at maps that show Earth's features, like mountains and boundaries between continents, and describe what I see, like where the mountains are and how continents are divided.** *Today we will examine how lightning rods can prevent fires and infer that humans cannot eliminate natural hazards but can take steps to reduce their impacts.*	
	3-ESS3-1 Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard. *Examples of design solutions to weather-related hazards could include barriers to prevent flooding, wind-resistant roofs, and lightning rods.*	**I can look at maps that show Earth's features, like mountains and boundaries between continents, and describe what I see, like where the mountains are and how continents are divided.** *Today we will evaluate natural hazards to choose a roof design that is best for a place that gets blizzards.*	
1 Day For Review			
Science District Common Assessment #3 Date:_____			**FEEDBACK FORM**
4th Nine Weeks - Weather and Climate, Forces and Motion **Formative:** Exit Tickets, Projects, Presentations **Summative:** Edulastic Assessment, Quizzes			
	Standards	**Learning Target**	**Notes:**
	3-PS2-1 Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object. *Examples could include that an unbalanced force on one side of a ball can make it start moving, and balanced forces pushing on a box from both sides will not produce any motion at all. Assessment is limited to one variable at a time: number, size, or direction of forces. Assessment does not include quantitative force size, only qualitative and relative.*	**I can plan and do an experiment to show how balanced and unbalanced forces make things move differently. I'll gather evidence to see how forces affect the way an object moves.** *Today we will investigate forces and motion and observe balanced and unbalanced forces through videos and a simulation.*	

	Assessment is limited to gravity being addressed as a force that pulls objects down.		
	3-PS2-2 Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion. *Examples of motion with a predictable pattern could include a child swinging in a swing, a ball rolling back and forth in a bowl, and two children on a see-saw. Assessment does not include technical terms such as "period" and "frequency."*	**I can watch how something moves or measure its motion to gather proof that there's a pattern. Then, I can use that pattern to guess how it will move in the future.***Today we will examine patterns of an object's motion in various situations.*	
	3-PS2-2 Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion. *Examples of motion with a predictable pattern could include a child swinging in a swing, a ball rolling back and forth in a bowl, and two children on a see-saw. Assessment does not include technical terms such as "period" and "frequency."*	**I can watch how something moves or measure its motion to gather proof that there's a pattern. Then, I can use that pattern to guess how it will move in the future.***Today we will understand how the patterns of an object's motion in various situations can be observed and measured.*	
	3-PS2-4 Define a simple design problem that can be solved by applying scientific ideas about magnets. *Examples of problems could include constructing a latch to keep a door shut and creating a device to keep two moving objects from touching each other.*	**I can come up with a simple problem that magnets can solve.** *Today we will explore the types of interactions between electric and magnetic forces.*	
	3-PS2-3 Ask questions to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other. *Examples of an electric force could include the force on hair from an electrically charged balloon and the electrical forces between a charged rod and pieces of paper; examples of a magnetic force could include the force between two permanent magnets, the force between an electromagnet and steel paperclips, and the force exerted by one magnet versus the force exerted by two magnets. Examples of cause and effect relationships could include how the distance between objects affects the strength of the force and how the orientation of magnets affects the direction of the magnetic force. Assessment is limited to forces produced by objects that can be manipulated by students, and electrical interactions are limited to static electricity.*	**I can ask questions to find out why things happen when electricity or magnets make them move without touching.** *Today we will examine the types of interactions that may be caused by electric forces.*	
	3-PS2-3 Ask questions to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other. *Examples of an*	**I can ask questions to find out why things happen when electricity or magnets make them**	

	electric force could include the force on hair from an electrically charged balloon and the electrical forces between a charged rod and pieces of paper; examples of a magnetic force could include the force between two permanent magnets, the force between an electromagnet and steel paperclips, and the force exerted by one magnet versus the force exerted by two magnets. Examples of cause and effect relationships could include how the distance between objects affects the strength of the force and how the orientation of magnets affects the direction of the magnetic force. Assessment is limited to forces produced by objects that can be manipulated by students, and electrical interactions are limited to static electricity.	**move without touching.** *Today we answer how magnetic or electric forces might be used to make the ride spin.*	
1 Day For Review			
Science District Common Assessment #4 Date:_____			**FEEDBACK FORM**