

Science Curriculum Map Grade K

1st Trimester	2nd Trimester	3rd Trimester
<p>Interdependent Relationships in Ecosystems: Animals, Plants & Their Environment</p> <ul style="list-style-type: none"> ● How do animals survive & thrive ● Living things vs. non-living things ● Life Cycle of a bug ● Butterfly Lifecycle <p>Weather & Climate</p> <ul style="list-style-type: none"> ● Sunlight ● Natural Hazards ● Asking questions, making observations and gathering information ● Patterns over time ● Black Rock 	<p>Matter & Its Interactions</p> <ul style="list-style-type: none"> ● Solid Vs. Liquid ● Temperature change ● Sink & Float <p>Forces & Interactions: Pushes and Pulls</p> <ul style="list-style-type: none"> ● Force vs. not using force ● Objects touching & colliding <p>Weather & Climate</p> <ul style="list-style-type: none"> ● Sunlight ● Natural Hazards ● Asking questions, making observations and gathering information ● Patterns over time 	<p>Interdependent Relationships in Ecosystems: Animals, Plants & Their Environment</p> <ul style="list-style-type: none"> ● Plants & Organisms ● Natural Resources- Reduce, Reuse and Recycle <p>Weather & Climate</p> <ul style="list-style-type: none"> ● Sunlight ● Natural Hazards ● Asking questions, making observations and gathering information ● Patterns over time ● Black Rock ● Earth Day - Reduce, Reuse, Recycle

Science Curriculum Map Grade 1

1st Trimester	2nd Trimester	3rd Trimester
<p data-bbox="201 391 695 467">Life Science: Structure, Function & Information Processing</p> <ul data-bbox="254 505 743 1284" style="list-style-type: none">● All animals belong to a specific classification based on basic characteristics● Over time, animals adapt to their environments/habitats● Design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs● Determine patterns in behavior of parents and offspring that help offspring survive● Construct an evidence-based account that some young plants and animals are similar to, but not exactly like, their parents● Identify parts of a plant● Plant Adaptations● Life Cycle of a Plant● Black Rock	<p data-bbox="772 391 1304 467">Earth Science: Space Systems: Patterns and Cycles</p> <ul data-bbox="825 500 1318 854" style="list-style-type: none">● Patterns of the motion of the sun, moon, and stars in the sky can be observed, described and predicted● Revolution/Rotation● Relationship between amount of daylight and time of year● Seasonal patterns of sunrise and sunset can be observed, described, and predicted	<p data-bbox="1346 391 1667 431">Light & Sound Waves</p> <ul data-bbox="1398 505 1892 894" style="list-style-type: none">● Sound can make matter vibrate and vibrating matter can make sound● Objects can be seen only when illuminated● Identify transparent, translucent and opaque● How mirrors can redirect a beam of light● Various devices can be used to communicate over a distance

Science Curriculum Map Grade 2

1st Trimester	2nd Trimester	3rd Trimester
<p data-bbox="201 391 663 467">Interdependent Relationships in Ecosystems</p> <ul data-bbox="254 505 747 1219" style="list-style-type: none">● Plants depend on water, light and air to grow.● Plan and conduct an investigation to determine if plants need sunlight and water to grow.● Animals depend on plants or other animals for food.● Develop a model that illustrates how plants and animals depend on each other for survival.● Some plants depend on animals for pollination and for dispersal.● There are many kinds of living things in any area, and they exist in different places on land and in water● Make observations of plants and animals to compare the diversity of life in different habitats (Black Rock observations)	<p data-bbox="772 391 1293 456">Earth's Systems: Processes that Shape the Earth</p> <ul data-bbox="825 500 1318 1349" style="list-style-type: none">● Some events like volcanic explosions and earthquakes happen quickly and weathering and erosion of rocks occur slowly.● Using sources, research the layers of the earth, how soil and rock are made and how the shape of the land can change over time (quickly or slowly).● Maps show where things are located. One can map the shapes and kinds of land and water in any area.● After learning how to use maps, create a model to represent the shapes and kinds of land and bodies of water in an area.● Water is found in the ocean, rivers, lakes and ponds. It exists as solid ice and in liquid form.● Complete investigations to explain soil erosion, how mountains are formed etc..	<p data-bbox="1346 391 1860 423">Structure and Properties of Matter</p> <ul data-bbox="1398 505 1892 1105" style="list-style-type: none">● Matter can be either a solid or liquid depending on temperature.● Matter can be described and classified by observable properties.● Different properties are suited to different purposes.● A great variety of objects can be built up from a small set of pieces.● Heating or cooling may change a substance; sometimes change is reversible and sometimes it's not● Use various measurement tools: thermometer, measuring cups, balance scale, ruler etc...

Science Curriculum Map Grade 3

1st Trimester	2nd Trimester	3rd Trimester
<p>Forces and Interactions</p> <p>Forces & Motion</p> <ul style="list-style-type: none"> • Effects of balanced and unbalanced forces on the motion of an object • Patterns can be used to predict future motion <p>Electricity & Magnets</p> <ul style="list-style-type: none"> • Cause & Effect relationships of electric or magnetic interactions between two objects not in contact with each other <p>Interdependent Relationships in Ecosystems</p> <p>Ecosystems</p> <ul style="list-style-type: none"> • Living things depend on one another • Environmental changes • Social interactions and group behaviors • Evidence of what is common and different • Habitats 	<p>Interdependent Relationships in Ecosystems</p> <p>Social Interactions and Group Behavior</p> <ul style="list-style-type: none"> • Groups work together • Groups serve different functions • Groups vary in size <p>Ancestry and Diversity</p> <ul style="list-style-type: none"> • Extinction • Fossils <p>Adaptation</p> <ul style="list-style-type: none"> • Needs of organisms in specific environment <p>Biodiversity and Humans</p> <ul style="list-style-type: none"> • Habitats and changes to the habitats <p>Inheritance and Variation of Traits: Life Cycles and Traits</p> <p>Growth and Development of Organisms</p> <ul style="list-style-type: none"> • Plant and Animal Life Cycles • Reproduction <p>Inheritance of Traits</p> <ul style="list-style-type: none"> • Traits inherited from parents • Traits as a result of the environment 	<p>Inheritance and Variation of Traits: Life Cycles and Traits</p> <p>Variation of Traits</p> <ul style="list-style-type: none"> • Differences in appearance and function <p>Natural Selection</p> <ul style="list-style-type: none"> • Advantages in surviving, finding mates, and reproducing <p>Weather & Climate</p> <ul style="list-style-type: none"> • Record patterns of the weather in different areas • Obtain and combine information to describe climates in different regions of the world • The earth's cycle of water and its effects on weather and climate <p>Natural Hazards</p> <ul style="list-style-type: none"> • Weather related hazards which could include flooding, storms • Steps taken to prevent natural hazards (barriers to prevent flooding, wind-resistant roofs, lightning rods)

Science Curriculum Map Grade 4

1st Trimester	2nd Trimester	3rd Trimester
<p>Structure, Function, and Information Processing</p> <ul style="list-style-type: none"> • An object can be seen when light reflected from its surface enters the eye. • Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction. • Different sense receptors are specialized for particular kinds of information, which may be then processed by the animal's brain. Animals are able to use their perceptions and memories to guide their actions. <p>Waves & Information</p> <ul style="list-style-type: none"> • Waves can be made in water by disturbing the surface. • Waves of the same type can differ in amplitude and wavelength. • Morse/Binary Code 	<p>Waves & Information</p> <ul style="list-style-type: none"> • Digitized information can be transmitted over long distances without significant degradation. High-tech devices, such as computers or cell phones, can receive and decode information. <p>Energy</p> <ul style="list-style-type: none"> • A given object possesses more energy of motion when it is moving faster. • Energy can be transferred by moving objects by sound, light, heat, or electric currents. • Energy can be transferred by electric currents, which can then be used locally to produce motion, sound, heat, or light. • Transfer of energy from one form to another (motion into electrical energy). • Relationship between energy and forces: when objects collide, the contact forces transfer energy so as to change the object's motions. 	<p>Energy</p> <ul style="list-style-type: none"> • The conversion of stored energy for practical use. • Energy and fuels that humans use are derived from natural sources, and their use affects the environment in multiple ways. <p>Earth's Systems: Processes that Shape the Earth</p> <ul style="list-style-type: none"> • Rock formations reveal the changes over time due to earth forces, such as earthquakes. The presence and location of certain fossil types indicate the order in which rock layers were formed. • Erosion and Weather • Plate Tectonics and the effects they have on earth's formation. • Living things affect the physical characteristics of their regions. • Natural Hazards and their impacts on the Earth. Humans cannot eliminate the hazards, but can take steps to reduce their impacts.