

	Billie Freeland	Billie Freeland	Nicole Andreas	Nicole Andreas
	Fall-3 weeks	Spring-4 weeks	Fall-3 weeks	Spring-4 weeks
<b>K</b>	Ecosystems-students study living and nonliving things in an ecosystem and interactions. We learned about life cycles of animals and plants. They focus on the relationship between the monarch and milkweed.	Candy Bar boxes-Students study weather patterns, severe weather and how the sun heats surfaces unevenly. They design a box and choose a place that will keep their candybar from melting.	Computer Science Basics - web navigation, vocabulary. Publishing-Keyboarding, digital drawing tools. Internet Safety/Citizenship Coding/Programming/Robotics	Pushes/Pulls-Students study toys that push and pull. They examine and draw models of forces and how they interact including speed and direction. Final artifact has been changed...
<b>1</b>	Worms-Students learn structures and functions of a worm and other animals for movement. They design their own animal that has a structure and function with a baby.	Shadows-Students study the movement of light. They model how shadows are made. They create a colorful play with light and shadows.	Computer Science Publishing-Keyboarding, digital drawing tools. Google Docs. Internet Safety/Citizenship Coding/Programming/Robotics	Moon/Stars-Students study the movement of the earth and moon around the sun. They draw shadows to show day and night on the earth. They study constellations and why they appear at different times then paint neon stars to make a glow in the dark movie about space.
<b>2</b>	Wetlands-Students discover that water is located in many places and connected. They see the many roles of a wetland to support wildlife, filter water and mitigate floods. Students then model an ecosystem with a wetland and test it against flooding.	Properties and Heating & Cooling Students study properties of matter such as flexibility and softness. They see how natural substances have different properties. They test four different materials for flexibility and softness and build a pillow with that material as a filler.	Computer Science Publishing-Keyboarding, digital drawing tools. Google Docs, Drawings, and Slides Internet Safety/Citizenship Coding/Programming/Robotics	Owls-Students study habits of daytime and nighttime creatures. They see how animals are living together in a biodiverse ecosystem. They then look at biodiversity in a pond. Students then build a biodiverse diorama of a pond or nocturnal habitat.
<b>3</b>	<b>Squirrels</b> -Students study the behavioral and physical adaptations of squirrels compared to dinosaurs. They study fossil evidence to develop a theory of what happened to dinosaurs and why animals like squirrels survive.	<b>Plants</b> -Students study the plant life cycle. They learn that certain plants can grow in certain climates. They study four major climates and create posters about one of those climates. They then study hazards to plants and build a protection system for their plant.	<b>Toys</b> - Students study patterns of motion and discover how force affects motion. They design a prototype toy that will be improved throughout the unit. Students learn how to conduct fair tests, and eventually teach younger peers how to design their toy.	<b>Birds</b> - Students study local birds, learn about their needs and how we can help to meet their needs throughout the year. Students discover that some birds' needs can not be met and therefore those birds migrate. Students then design and engineer a bird feeder for a specific set of birds.
<b>4</b>	<b>Energy</b> Students learn that energy can be transferred from water to moving objects or to create a current. They learn	<b>Waves</b> -Students study light and energy in waves. They discover that animals like sea turtles and birds navigate with	<b>Fire Ecology</b> - Students learn about the dangers and benefits of fire. They then study how fire can be used as an energy source.	<b>Dynamic Earth</b> -Students learn how the land and water around is always changing. They then discover how erosion and deposition shape our

	about additional forms of energy including biofuel, wind and geothermal. Students design a machine for their community that solves a problem powered by alternative energy.	electromagnetic waves or lights at night. They then develop a plan to help mitigate light pollution that could confuse turtles and birds.	Students then discover that some ecosystems need fire to survive. Students then use maps, graphs, and other data to best determine how to meet the fire needs of a specific area.	land, create rock layers, formations, and preserve fossils. Major events like volcanoes, earthquakes, and hurricanes can also change the earth's surface. The unit ends with students creating a model to predict future changes in a specific area.
<b>5</b>	Terrains/ <b>Ecosystems</b> -Students learn the relationships in an ecosystem such as keystone and indicator species. They build terrains and show animals on a terrain with water and plants interacting. They study movement of energy in the terrain including decomposers. They then bury food and predict what will happen.	Water-Students think about sources of water in their ecosystem and use. They learn where water comes from and goes to and how it is cleaned. They learn about communities with water issues/lack of water. They make a 3D model of a water system to see how water is connected. ....More in later lessons I haven't taught yet.	Stars (1 Fall/3 Spring) Students discover the direction and length of their shadows. They then discover how those shadows change in spring and can be used to see movement of objects in space.	Taste (2 Fall/1 Winter)-Students learn by trying and analyzing a few foods that taste perceptions are created using all of our senses although the particles that we actually taste can not be seen. Students then discover that mixing substances can cause physical and chemical changes though the mass of the substances does not change. Students also learn about sugars and how things become sweet in nature. Finally, students design, market and try to create a new taste perception using 5 ingredients.
<b>EI</b>	Energy (4th Grade)	Waves (4th Grade)	Stars (5th Grade)	Taste (5th Grade)
<b>Y5</b>	Young 5's studied observing animal's color, baby animals and their parents and life cycles of different animals.	In the spring, Y5's studied heat, light and sound energy. We observed different forms of those forms of energy and did several projects such as making a musical instrument and observing light traveling and heating materials.	Computer Science Reinforce Classroom standards	Computer Science Reinforce Classroom standards

