

EAST ISLIP SCHOOL DISTRICT

OHM SCIENCE: SCOPE AND SEQUENCE

GRADE	Unit 1	Unit 2	Unit 3
Grade 5	<p style="text-align: center;"><u>Earth Systems</u></p> <p>NYSSLS Covered: 5-ESS2-1, 5-ESS2-2, 5-ESS2-2, 5-ESS3-1</p> <p><u>Driving Question:</u> How are our lives affected by Earth's systems?</p> <p><u>Students will:</u></p> <ul style="list-style-type: none"> - I activate any prior knowledge about the spheres of the earth - become experts for one layer of the atmosphere and share their understandings with their peers - develop an understanding for each component of the water cycle - identify the impact of the water cycle to life on Earth 	<p style="text-align: center;"><u>Chemistry In Our World</u></p> <p>NYSSLS Covered: 5-PS1-1, 5-PS1-2, 5-PS1-3, 5-PS1-4</p> <p><u>Driving Question:</u> How can interactions between unseen particles be used to identify and describe substances?</p> <p><u>Students will:</u></p> <ul style="list-style-type: none"> - learn how to calculate density of regular/irregularly shaped objects - observe a number of phenomena and analogies which are meant to demonstrate the existence of atoms. - learn atoms are made of a nucleus containing protons and neutrons and the electrons orbiting outside. - understand that electrons have a negative charge and adding extra electrons to a surface will cause it to attract or repel an object 	<p style="text-align: center;"><u>The Energy of Life</u></p> <p>NYSSLS Covered: 5-PS3-1, 5-LS1-1, 5-LS2-1</p> <p><u>Driving Question:</u> What makes an ecosystem healthy?</p> <p><u>Students will:</u></p> <ul style="list-style-type: none"> - be introduced to the class gecko that will be used throughout this Life Science unit - use their background knowledge to review characteristics and adaptations of the gecko - explore the similarities and differences between warm-blooded and cold-blooded - review the parts of a plant and the role they play in the process of photosynthesis - review the process of respiration that is used in plants.

	<ul style="list-style-type: none"> - graph the amounts of salt and fresh water on the earth and identify on a map where each type is located. - learn that water heats more slowly and cools more slowly than the air - learn how rising air at the equator causes areas with higher amounts of precipitation. - see the relationship between precipitation, elevation, and the biomes - complete a map for population density around the world. - see how the climate affects where cities will be on Earth based on the maps from previous lessons. - develop a way to measure the amount of water wasted by a dripping faucet and create plausible solutions 	<ul style="list-style-type: none"> - use indirect measurement in an activity leading to an understanding of atoms. - learn what a mixture is and 4 methods for physically separating different mixtures - be introduced to the idea that a chemical change is different from a physical change - define the terms acid & base and will test common substances using to identify which are acidic and which are basic - understand that the Law of Conservation of Mass - examine substances and identify the color, texture, shape/crystal size -examine substances and identify the magnetism, solubility, and if it is an acid/base - demonstrate their knowledge of the identification process of unknown powders - demonstrate their knowledge of chemical and physical changes 	<ul style="list-style-type: none"> - use their knowledge of photosynthesis and respiration to understand the carbon cycle - review and identify herbivore, carnivore, and omnivores, producer and consumer and their roles in a food web - identify important vocabulary and energy level percentages in a food pyramid - complete an inquiry-based experiment on how geckos prefer to obtain their energy - design and carry out an inquiry about the energy of life based on knowledge and their own interests.
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