

North East School District Curriculum Map
Science
Kindergarten



Introduction

The science curriculum aims to help children develop basic scientific ideas and understanding about the biological and physical aspects of the world, and the processes through which they develop this knowledge and understanding. The curriculum also aims to foster positive attitudes toward science, and to encourage children to examine and appreciate how science and technology affect their lives and the environment.

The competencies for science capture experiences each child needs in order to grow intellectually, socially, and emotionally in and out of school. Science is a way to acquire knowledge for thinking and communicating. Science is the use of evidence to construct testable explanations and predictions of natural phenomena, as well as the knowledge generated through this process. Science and engineering are significant parts of human culture and represent many of the pinnacles of human achievement. Not only is learning about the world around us important, science and engineering can improve people's lives in significant ways. In order to make informed decisions, it is imperative that we have knowledge of science to help with those decisions. Many of the challenges we face today are rooted in science, and it is important that we focus on the need for science and engineering professionals to keep Pennsylvania competitive in both the national and international arenas.

MONTH	CONCEPTS	COMPETENCIES	STANDARDS/ ELIGIBLE CONTENT	ASSESSMENTS	RESOURCES
Living vs. Nonliving Things	Attributes of living things. What living things need to survive.	Living things need water. Living things need air. Living things need food. Living things need shelter. An animal is a living thing. A plant is a living thing.	K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.	Teacher Observation	https://wqln.pbslearningmedia.org/resource/tdc02.sci.life.colt.lp_living/living-vs-nonliving/ https://thisreadingmama.com/living-vs-non-living-learning-pack/ Sort Worksheet https://www.teacherspayteachers.com/Product/FREE-Living-and-Non-Living-Things-Sort-Cut-and-Paste-Worksheets-4659398 Living and Non-living Center/Station Sort
Life Cycles	Identify living things and their life	Describe basic external structures	K-LS1-1. Use observations to describe patterns of what plants	Teacher Observation	https://wqln.pbslearningmedia.org

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Animal Behavior	Identify living things and their life processes.	<p>Describe basic external structures of animals and plants.</p> <p>Identify a plant or animal based on a given life cycle stage (e.g., butterfly, frog, seed-producing plant).</p>			<p>5/#.Xlcm22i6NP Y</p> <p>Jack and the Beanstalk story and planting a bean seed.</p> <p>Life Cycle of a pumpkin SMART board activity.</p> <p>Non-fiction study of Bears, Penguins, Nocturnal Animals (bats, owls, raccoons, opossums, moths and fireflies) and robins.</p>
Animals and their young	Similarities between young animals and their parents.	<p>Identify similarities between animal parents and their young.</p> <p>Identify how animals resemble other animals of the same kind.</p>	K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.	Teacher Observation	<p>See Non-fiction animal studies listed above.</p> <p>PBS children's broadcasting (Wild Kratts, Syd the Science Kid).</p>

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Plant and Animal Seasonal Changes	Plants and animals adapt and change for their environment throughout the seasons.	Describe how the leaves change seasonally.	K-ESS2-2. Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.	Teacher Observation	Weather Graph and Seasonal Non-Fiction as it relates to Morning Meeting. Observation of nature during outdoor activities/recess.
Climate	Seasonal changes Weather and the impact it has on our daily lives	Identify seasons and how the weather differs in each season. Discuss weather drills and how to complete or practice them at school. Explore and learn about ice through a local field trip to an ice skating rink. Identify safe behaviors during varying weather conditions.	K-ESS3-2. Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.	Teacher Observation	Discussions about weather delays and cancellations (snow plowing, icy roads and safe behavior on the bus in inclement weather.) Weather Graph Emergency Weather Drills Family notes sent home discussing playing outside in the snow and the

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Waste and Recycling	Different types of pollution and how they happen.	Identify water pollution. Identify land pollution. Identify air pollution. Identify 1 cause of each.	K-ESS3-3. Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.	Teacher Observation	School-wide paper recycling program StarFall Earth Day Game