



**Dover Area School District Curriculum K-U-D  
Kindergarten Science**

Standards	Know	Understand	Do
3.1.K.A1. Identify the similarities and differences of living and non-living things	Grow, breathe, survive, water, food	Objects can be classified as living & non-living.	Sort images as living & non living
3.1.K.A3. Observe, compare, and describe stages of life cycles for plants and/or animals.	Seed, sprout, plant, mature	Plants and animals develop through stages.	Effectively put together a life cycle
3.1.K.A5. Observe and describe structures and behaviors of a variety of common animals.	Protect, predators, habitat	Animals use their behaviors to help them survive.	Share ideas for whole group writings; Participate in shared writing activities
3.1.K.B1. Observe and describe how young animals resemble their parents and other animals of the same kind.	Patterns, traits, offspring	Parents and their offspring share similar traits	Label animal parts. Describe ways in which parents and their young may resemble one another
3.1.K.C2. Describe changes animals and plants undergo throughout the seasons.	bare cozy bud collect chilly	Plants and animals change throughout the seasons	Decorate a tree to show how it appears differently in different seasons
3.1.K.C3. <b>CONSTANCY AND CHANGE</b> Describe changes that occur as a result of climate.	Hibernation, migration, adapt to temperature	Why animals hibernate or migrate.	Students will label a picture of animals that hibernate and migrate. Students will explain why animals need to hibernate or migrate
3.2.K.A1. Identify and classify objects by observable properties of matter. Compare different kinds of materials and discuss their uses.	solid, liquid, gas, ruler, balance, thermometer, other attributes	Properties of matter can be classified. Uses of properties of matter.	Sort and classify properties of matter.
3.2.K.A3. Describe the way matter can change.	matter properties freezing evaporating melting	Matter can change. Describe what happens when ingredients are combined.	Make an "Ocean in a Bottle".
3.2.K.A5. <b>CONSTANCY AND CHANGE</b> Recognize that everything is made of matter.	solid, liquid, gas	Matter can take on different shapes depending on the type of matter.	Practice with solids, liquids, and gases in different containers.
3.2.K.B3. Describe how temperature can affect the body	hot, cold, warm, freezing	Temperature changes daily and seasonally. Temperature determines how we dress.	Students will do a daily check of the temperature and dress accordingly for recess
3.2.K.B6. <b>ENERGY</b> Recognize that light from the sun is an important source of energy for living and nonliving systems and some source of energy is needed for all organisms to stay alive and grow	soil, seedling, pollination, germination	Sunlight is needed to stay alive and grow. The sun is an important source of energy.	Plant a seed and observe how the sun affects its growth
3.3.K.A1. Distinguish between three types of earth materials – rock, soil, and sand.	flat, land, hills, mountains, rock, soil, clay, sand	There are differences in land forms and earth materials.	View and create different land forms using art supplies. Observe earth materials.
3.3.K.A4. Identify sources of water for human consumption and use.	stream, pond, lake, ocean, natural resources	Water comes in different forms. Sources of water.	Explore different types of water.
3.3.K.A5. Record daily weather conditions using simple charts and graphs Identify seasonal changes in the environment. Distinguish between types of precipitation.	different types of weather, windy, snowy, foggy, partly cloudy,, sunny, cloudy, rainy	Weather changes daily and seasonally. Words can be used to describe the sky.	Record the type of weather on a class graph
4.1.K.A Identify the similarities and differences of living and non-living things within the immediate and surrounding environment.	living, non-living, environment	Some things in our world are alive, and others are non-living	Identify living and non living things in their immediate environment. Observe and document the growth of a living thing. Plant seeds and observe/ document growth
4.1.K.D Observe and describe what happens to living things when needs are met.	basic needs of living things	Living things grow and change when basic needs are met.	Observe plant growth when needs are, are not, partially met



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4.1.K.E Identify how the changes of seasons affect their local environment.	summer, winter, spring, fall, Dover	Trees and environment change according to the season	Observe local trees as they change through the season.
4.2.K.A Identify components of a water cycle.	Sun, water cycle, evaporation, condensation, precipitation	Sun is a source. Changes in the water cycle.	Sequence pictures of the water cycle.
4.2.K.B Differentiate between terrestrial, aquatic, and wetland ecosystems in Pennsylvania	terrestrial habitat, aquatic habitat, ecosystem, wetland	An ecosystem is a community of living things and everything surrounding.	Virtual field trip of a wetland ecosystem.
4.2.K.C Identify that there are living and nonliving components in an aquatic habitat.	various ocean animals and plants as well as non living items	Living and non living things can be found in the ocean	Create an underwater scene
4.3.K.A Identify some renewable resources used in the classroom.	recycle reduce reuse Earth Day	We can re-use items to help keep our planet clean	Create something from reusable materials
4.3.K.B Recognize the importance of conserving natural resources.	reduce reuse recycle Earth Day	It is important to monitor our use of natural resources (water, paper)	appropriate water and other material conservation
4.4.K.A Identify common plants and animals found in Pennsylvania agricultural systems.	marigolds corn apple mushroom carrot pepper tomato wheat fruit chicken cow goat pig sheep	Identify common plants and animals to Pennsylvania	Apple Orchard Field Trip in the Fall. Planting seeds in the Spring. Discussion of Farm animals through the KinderLiteracy theme.
4.4.K.B Identify common plants and animals used by people.	unit vocabulary words from Apples, Pumpkins, Seed to Plant, Seasons, Bats, Owls, Penguins Reindeer, Snakes, Rabbits, Spiders, Dolphins/Sharks	Animals and Plants are important and useful to people.	Observe trees as they change through the year. Labeling activities for animals that are studied. Planting seeds (flower, grass, vegetables)
4.4.K.C Observe and describe stages of life cycles for plants and animals.	Vocab words from apples, pumpkins, seasons, bats, owls, penguins, snakes, seed to plant & butterflies	Living things go through a life cycle	label life cycles of plants, butterflies, frogs
4.4.K.D Identify tools and machinery commonly used in agriculture.	spade, pitchfork, hoe, rake, watering tools, shears, wheelbarrow, combine, tractor, plow milking system	Farmers use tools and machines to help grow food	Explore tools-virtual, pictorial or real. Field trip to the orchard
4.5.K.A Identify what people use in their everyday life.	Community helpers	People use different items for their jobs	Label community helper with their job
4.5.K.B Identify common pests in our homes, gardens and neighborhoods.	pests, pesticides	Pests can be harmful. There are different methods that can be used to control pests.	Identify common pests in our area and brainstorm ways to control these pests.
4.5.K.C Identify different types of pollution (land, water or air) and their sources.	reduce reuse recycle Earth Day, pollution, oxygen	Our Earth can be polluted	Scholastic Let's Find Out articles and videos
4.5.K.D Identify waste and practice ways to reduce, reuse and recycle.	reduce reuse recycle Earth Day	Some things we throw away can be recycled	practice recycling objects