



Dover Area School District Curriculum K-U-D

Grade 2 Science

Board Approved:

	Know	Understand	Do
3.1.2.A3. Identify similarities and differences in the life cycles of plants and animals.	life cycles of plants and animals Key vocabulary: camouflage, extinct, habitat, life cycle, roots, stem, seedling, egg/tadpole/froglet/young frog/adult frog, nutrient, amphibian, adaptations	Organisms have different ways of growing and developing	Compare & contrast life cycles
3.1.2.A5. Explain how different parts of a plant work together to make the organism function.	parts of a plant and their function: Key vocabulary: roots, stem, seedling, nutrients	Different parts of plants have certain jobs.	Label the parts of a plant
3.1.2.A9. Science is Inquiry	scientific method: Key vocabulary: Ask questions; Perform research, Establish a hypothesis, Conduct an experiment, Observe, Analyze data, Communicate results	Science experiments help us find answers to questions,	Students will complete lab related to the standard
3.1.2.B6 Science is Inquiry	scientific method: Key vocabulary: Ask questions; Perform research, Establish a hypothesis, Conduct an experiment, Observe, Analyze data, Communicate results	Science experiments follow a set of procedures	Students will complete lab related to the standard
3.1.2.C2. Explain that living things can only survive if their needs are being met.	basic needs of living things (air, habitat, food, water) Key vocabulary: survive, needs, air, habitat, food, water	If needs are not met, then living things cannot survive.	Identify basic needs of living things
3.1.2.C3. CONSTANCY AND CHANGE Describe some plants and animals that once lived on Earth, (e.g., dinosaurs) but cannot be found anymore. Compare them to now living things that resemble them in some way (e.g. lizards and birds)	Adaptations change to meet changing environments: Key vocabulary: fossils, extinct	Plants and animals change over time	Compare and contrast past versus present
3.1.2.C4. Science is Inquiry	scientific method: Key vocabulary: Ask questions; Perform research, Establish a hypothesis, Conduct an experiment, Observe, Analyze data, Communicate results	Science experiments help us find answers to questions	Students will complete lab related to the standard
3.2.2.A3. Demonstrate how heating and cooling may cause changes in the properties of materials.	states of matter, properties: Key vocabulary: matter, solids, liquids, gas, physical change	Matter can change	Define and give examples of solids, liquids, and gases-how matter changes from one state to another
3.2.2.A4. Experiment and explain what happens when two or more substances are combined (e.g. mixing, dissolving, and separated (e.g. filtering, evaporation)	mixture and solution: Key vocabulary: mixture, solution, evaporation, observable change, physical change, combine	How substances are combined and separated	Identify mixtures and solutions (ex. show pictures of fruit salad, salt water, etc)
3.2.2.A5. CONSTANCY AND CHANGE Recognize that everything is made of matter	definition of matter Key vocabulary: solids, liquids, gases, volume	Everything is made of matter	Sort different examples of matter into solids, liquids, and gases
3.2.2.A6. Science is Inquiry	scientific method: Key vocabulary: Ask questions; Perform research, Establish a hypothesis, Conduct an experiment, Observe, Analyze data, Communicate results	The key ideas of the lab	Students will complete lab related to the standard
3.2.2.B2. Explore and describe how different forms of energy cause changes. (e.g., sunlight, heat, wind)	different forms of energy: Key vocabulary: energy, heat, light, sound, weathering	Energy can cause changes	Identify ways that a form of energy can cause change. (weathering, erosion)
3.2.2.B6. ENERGY 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.	Sun is the original source of energy for living organisms: Key vocabulary: heat, light, food chain, organisms, solar energy, predator, prey	All life on earth is dependent on the sun for survival.	Identify parts of the food chain.
3.2.2.B7. Science is Inquiry	scientific method: Key vocabulary: Ask questions; Perform research, Establish a hypothesis, Conduct an experiment, Observe, Analyze data, Communicate results	The key ideas of the lab	Students will complete lab related to the standard
3.3.2.A4. Explore and describe that water exists in solid (ice) and liquid (water) form. Explain and illustrate evaporation and condensation	states of matter and how you get from one state to another: Key vocabulary: condensation, evaporation	Water can change states and the water cycle	Identify parts of the water cycle



Dover Area School District Curriculum K-U-D
Grade 2 Science
Board Approved:

	Know	Understand	Do
3.3.4.A7. Science is Inquiry	scientific method: Key vocabulary: Ask questions; Perform research, Establish a hypothesis, Conduct an experiment, Observe, Analyze data, Communicate results	The key ideas of the lab	Students will complete lab related to the standard
3.3.2.B1. Observe and record • location of the Sun and the Moon in the sky over a day. • changes in the appearance of the Moon over a month. Observe, describe, and predict seasonal patterns of sunrise and sunset	the relationship between the earth, moon, and sun, moon cycle: Key vocabulary: moon, cycle, lunar phase, new moon, waxing crescent, first quarter, waxing gibbous, full moon, waning gibbous, third quarter, waning crescent, daylight, seasons	The earth moves around the sun and the moon moves around earth. This movement causes the seasons and amount of daylight.	Label the moon cycle
3.3.2.B3. Science Inquiry	scientific method: Key vocabulary: Ask questions; Perform research, Establish a hypothesis, Conduct an experiment, Observe, Analyze data, Communicate results	The key ideas of the lab	Students will complete lab related to the standard
4.1.2.A Describe how a plant or an animal is dependent on living and nonliving things in an aquatic habitat.	basic needs and attributes of aquatic animals and plants: Key vocabulary: camouflage, extinct, habitat, life cycle, roots, stem, seedling, egg/tadpole/froglet/young frog/adult frog, nutrient, amphibian, adaptations	Basic needs for aquatic life	Identify living and nonliving things in aquatic habitats
4.1.2.C Identify sources of energy in an aquatic habitat.	food chain: Key vocabulary: habitat, nutrient, amphibian	All life is dependent on the sun	Identify the parts of an aquatic food chain
4.1.2.D Identify differences in living things (color, shape, size, etc.) and describe how adaptations are important for survival.	adaptations: Key vocabulary: adaptations, fossils, extinct	Species need different adaptations for survival.	Identify adaptations of animals.
4.1.2.E Identify how living things survive changes in their environment.	Key vocabulary: adaptations, extinct, fossils	Animals and plants need to change to adapt to their current environment.	Identify different kinds of adaptations (movement, body parts)
4.1.2.F Science Inquiry	scientific method: Key vocabulary: Ask questions; Perform research, Establish a hypothesis, Conduct an experiment, Observe, Analyze data, Communicate results	The key ideas of the lab	Students will complete lab related to the standard
4.2.2.C Identify and describe the basic needs of plants and animals in an aquatic ecosystem.	basic needs and attributes of aquatic animals and plants: Key vocabulary: camouflage, extinct, habitat, life cycle, roots, stem, seedling, egg/tadpole/froglet/young frog/adult frog, nutrient, amphibian, adaptations	Basic needs for aquatic life	identify living and nonliving things in aquatic habitats
4.2.2.D Science Inquiry	scientific method: Key vocabulary: Ask questions; Perform research, Establish a hypothesis, Conduct an experiment, Observe, Analyze data, Communicate results	The key ideas of the lab	Students will complete lab related to the standard
4.3.2.A Describe the jobs/hobbies people have in the community that relate to natural resources.	natural resources, jobs and hobbies that relate back to natural resources (Hershey chocolate, skiing-mountains) Key vocabulary: resources, natural resources, occupation, hobby, community	Natural resources of our area affect local jobs and hobbies.	Identify different jobs and hobbies that can be done in certain areas.
4.3.2.B Identify products and by- products derived from renewable resources.	renewable and nonrenewable resources; Key vocabulary: products, by-products, renewable resources	Renewable resources provide us with products and byproducts.	Identify a product and byproduct of a natural resource.
4.3.2.C Science Inquiry	scientific method: Key vocabulary: Ask questions; Perform research, Establish a hypothesis, Conduct an experiment, Observe, Analyze data, Communicate results	The key ideas of the lab	Students will complete lab related to the standard



Dover Area School District Curriculum K-U-D
Grade 2 Science
Board Approved:

	Know	Understand	Do
4.4.2.A Identify agriculture as a living system and that food and fiber originate from plants and animals.	foods and fibers come from different animals; Key vocabulary: agriculture, system, fiber, originate,	Our food and fibers have to be grown from plants and animals.	Match the food and fiber sources to their products. (cow -steak, leather, hamburger)
4.4.2.B Explain how agriculture supports jobs in Pennsylvania.	Local agriculture jobs; Key vocabulary: agriculture, occupations,	Agriculture jobs depend on the environment you live in.	Identify jobs related to agriculture in Pennsylvania.
4.4.2.C Examine life cycles of plants and animals in their aquatic habitat	Life cycle of animals that live in water; Key vocabulary: habitat, life cycle, roots, stem, seedling, egg/tadpole/froglet/young frog/adult frog, nutrient, amphibian, adaptations	The life cycle of animals that live in water is different than the life cycle of animals that live on land	Compare and contrast the life cycles of animals that live on land and animals that live in water
4.4.2.E Science Inquiry	scientific method; Key vocabulary: Ask questions; Perform research, Establish a hypothesis, Conduct an experiment, Observe, Analyze data, Communicate results	The key ideas of the lab	Students will complete lab related to the standard
4.5.2.A Identify the natural resources used to make various products.	Natural resources; Key vocabulary: resources, natural resources, products,	Natural resources are used to make products.	Identify natural resources that make certain products.
4.5.2.C Identify how people can reduce pollution.	pollution; Key vocabulary: reduce, reuse, recycle, pollution	There are things people can do to reduce pollution	Students list ways that reduce pollution.
4.5.2.D Describe how people can help the environment by reducing, reusing, recycling and composting.	reduce, reuse, recycle continuum; Key vocabulary: reduce, reuse, recycle, environment, composting, sustainability	People need to do all steps of the recycle continuum for change to happen.	Give examples of ways to reduce, reuse, and recycle in our community.
4.5.2.F Science as Inquiry	scientific method; Key vocabulary: Ask questions; Perform research, Establish a hypothesis, Conduct an experiment, Observe, Analyze data, Communicate results	The key ideas of the lab	Students will complete lab related to the standard