

Grade 5 Science

Diary map is based on the 2014-2015 school year. Information may change year to year. Months are guidelines and items may be done at different times of the year.

Month	Essential Questions	Content	Skills	Assessment	Resources	Technology
Aug. - Sept.	<p>The Scientific Method Why do scientists use the scientific method?</p> <p>Food Chains and Webs: Soil How are Earth's organisms interacting to create different food chains and webs?</p>	<p>The Scientific Method -State the question -Collect information -Form Hypothesis -Test -Record and study data -Draw a Conclusion</p> <p>Food Chains and Webs: Soil -Clay -Decay -Organism -Sand -Silt -Soil -Terrarium</p>	<p>The Scientific Method -Identify the steps in the scientific method -Learn how scientists form and test a hypothesis -Use the scientific method to conduct experiments</p> <p>Food Chains and Webs: Soil -Examine several soil samples and identify their components -Test the samples for sand, silt, clay composition -Prepare terrariums for study in later activities</p>	<p>The Scientific Method -Whole group discussions -Hands on group activities -Teacher created activity sheets</p> <p>Food Chains and Webs: Soil -Whole group discussions -Hands on group activities -Delta Science Modules: Food Chains and Webs activity sheets -Teacher created <i>Check-Ups</i></p>	<p>The Scientific Method -Macmillan/McGraw-Hill text (2011) -<i>Sandwich Bag Science</i> teacher guide</p> <p>Food Chains and Webs: Soil -Delta Science Modules: Food Chains and Webs (2011)</p>	<p>The Scientific Method -Computer -Elmo -SMART Board -YouTube</p> <p>Food Chains and Webs: Soil -Computer -Elmo -SMART Board -You Tube</p>
Oct.	<p>Food Chains and Webs: Plants & Soil How are Earth's organisms interacting to create different food chains and webs?</p> <p>Food Chains and Webs: Plants as Producers How are Earth's</p>	<p>Food Chains and Webs: Plants & Soil -Conclusion -Control group -Environment -Experiment -Experimental group -Nutrients -Variable</p> <p>Food Chains and Webs: Plants as Producers -Chlorophyll</p>	<p>Food Chains and Webs: Plants & Soil -Discuss experimental design -Plant seeds and measure plant growth -Compare how plants grow in different soil mixtures -Recognize soil as a non-living thing that affects plant growth</p> <p>Food Chains and Webs: Plants as Producers -Discuss the needs of</p>	<p>Food Chains and Webs: Plants & Soil -Whole group discussions -Hands on group activities -Delta Science Modules: Food Chains and Webs activity sheets -Teacher created <i>Check-Ups</i></p> <p>Food Chains and Webs: Plants as Producers -Whole group</p>	<p>Food Chains and Webs: Plants & Soil -Delta Science Modules: Food Chains and Webs (2011)</p> <p>Food Chains and Webs: Plants as Producers -Delta Science Modules:</p>	<p>Food Chains and Webs: Plants & Soil -Computer -Elmo -SMART Board -YouTube</p> <p>Food Chains and Webs: Plants as Producers -Computer</p>

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	organisms interacting to create different food chains and webs?	-Producer	plants -Conduct an experiment to determine the effect of sunlight on plant growth -Identify plants as producers on which all animals depend, directly or indirectly, for food	discussions -Hands on group activities -Delta Science Modules: Food Chains and Webs activity sheets -Teacher created <i>Check-Ups</i>	Food Chains and Webs (2011)	-Elmo -SMART Board -You Tube
Nov.	Food Chains and Webs: Observing Crickets How are Earth's organisms interacting to create different food chains and webs?	Food Chains and Webs: Observing Crickets -Abdomen -Antennae -Ecosystem -Head -Model -Ovipositor -Population -Thorax	Food Chains and Webs: Observing Crickets -Identify crickets body parts and record observations of cricket behavior -Observe and describe how living and non-living things in the terrarium affect the lives of crickets -Discuss how crickets' behaviors and body structures help them meet their needs in their habitat -Understand the causes and effects of changes in an environment -Give examples of changes in the crickets' environment that are beneficial and harmful to them	Food Chains and Webs: Observing Crickets -Whole group discussions -Hands on group activities -Delta Science Modules: Food Chains and Webs activity sheets -Teacher created <i>Check-Ups</i>	Food Chains and Webs: Observing Crickets -Delta Science Modules: Food Chains and Webs (2011)	Food Chains and Webs: Observing Crickets -Computer -Elmo -SMART Board -YouTube
	Food Chains and Webs: Observing Anoles How are Earth's organisms interacting to	Food Chains and Webs: Observing Anoles -Adaption -Anole	Food Chains and Webs: Observing Anoles -Observe, record, and discuss how green anole	Food Chains and Webs: Observing Anoles -Whole group discussions	Food Chains and Webs: Observing Anoles -Delta Science Modules: Food Chains and Webs	Food Chains and Webs: Observing Anoles -Computer -Elmo

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	create different food chains and webs?	-Magnifiers -Terrarium -Thermometer	body structures and behaviors help the anoles survive in their habitat -Observe and describe how temperature and weather affect the life of an anole -Observe and record differences among the anoles in the terrarium -Explain how differences among animals of the same population sometimes give individuals an advantage in surviving and reproducing in changing habitats	-Hands on group activities -Delta Science Modules: Food Chains and Webs activity sheets -Teacher created <i>check-ups</i>	(2011)	-SMART Board -YouTube
Dec.	Food Chains and Webs: Observing Earthworms How are Earth's organisms interacting to create different food chains and webs?	Food Chains and Webs: Observing Earthworms -Bristles -Clitellum -Earthworm	Food Chains and Webs: Observing Earthworms -Measure the length of earthworms -Draw and label the parts of an earthworm -Observe earthworm body parts and behaviors and recognize how they help the earthworm live in soil -Explain how earthworms meet their needs by using behaviors in response to information received from the environment	Food Chains and Webs: Observing Earthworms -Whole group discussions -Hands on group activities -Delta Science Modules: Food Chains and Webs activity sheets -Teacher created <i>check-ups</i>	Food Chains and Webs: Observing Earthworms -Delta Science Modules: Food Chains and Webs (2011)	Food Chains and Webs: Observing Earthworms -Computer -Elmo -SMART Board -YouTube

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Month	Essential Questions	Content	Skills	Assessment	Resources	Technology
Jan.	Food Chains and Webs: Animal Behavior How are Earth's organisms interacting to create different food chains and webs?	Food Chains and Webs: Animal Behavior -Camouflage -Carnivore -Consumer -Herbivore -Primary consumer -Secondary consumer	Food Chains and Webs: Animal Behavior -Continue to observe and record the behavior of animals in their terrariums -Observe and draw conclusions about how anoles change color in response to changes in temperature and light in their habitat -Discuss behavioral adaptations that help anoles survive in their habitat -Observe anoles eating crickets and discuss anoles as secondary consumers, or carnivores	Food Chains and Webs: Animal Behavior -Whole group discussions -Hands on group activities -Delta Science Modules: Food Chains and Webs activity sheets -Teacher created <i>check-ups</i>	Food Chains and Webs: Animal Behavior -Delta Science Modules: Food Chains and Webs (2011)	Food Chains and Webs: Animal Behavior -Computer -Elmo -SMART Board -YouTube
	Food Chains and Webs: Mystery Pellets How are Earth's organisms interacting to create different food chains and webs?	Food Chains and Webs: Mystery Pellets -Dissect -Pellet	Food Chains and Webs: Mystery Pellets -Offer ideas about the contents and origin of owl pellets -Dissect pellets and identify bones found within -Construct food chains that include owls -Describe how changes in ecosystems can affect the life of owls	Food Chains and Webs: Mystery Pellets -Whole group discussions -Hands on group activities -Delta Science Modules: Food Chains and Webs activity sheets -Teacher created <i>check-ups</i>	Food Chains and Webs: Mystery Pellets -Delta Science Modules: Food Chains and Webs (2011)	Food Chains and Webs: Mystery Pellets -Computer -Elmo -SMART Board -YouTube
Feb.	Food Chains and Webs (Food Chain Game) How are Earth's	Food Chains and Webs (Food Chain Game) -Predator	Food Chains and Webs (Food Chain Game) -Act out feeding	Food Chains and Webs (Food Chain Game) -Whole group	Food Chains and Webs (Food Chain Game) -Delta Science Modules:	Food Chains and Webs (Food Chain Game) -Computer

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	organisms interacting to create different food chains and webs?	-Prey	relationships between crickets, anoles, and owls -Discuss how it feels to be the prey or the predator -Compare simulated food chain relationships with real ones -Summarize the interactions and interdependence of animals and plants in an ecosystem	discussions -Hands on group activities -Delta Science Modules: Food Chains and Webs activity sheets -Teacher created <i>check-ups</i>	Food Chains and Webs (2011)	-Elmo -SMART Board -YouTube
	Food Chains and Webs (Web of Life) How are Earth's organisms interacting to create different food chains and webs?	Food Chains and Webs (Web of Life) -Food web	Food Chains and Webs (Web of Life) -Create diagrams of food webs on paper -Compare food chains to food webs -Recognize the role of humans in food webs -Infer why real food webs are so complex -Discuss how humans adapt their behavior to live in changing habitats	Food Chains and Webs (Web of Life) -Whole group discussions -Hands on group activities -Delta Science Modules: Food Chains and Webs activity sheets -Teacher created <i>check-ups</i>	Food Chains and Webs (Web of Life) -Delta Science Modules: Food Chains and Webs (2011)	Food Chains and Webs (Web of Life) -Computer -Elmo -SMART Board -YouTube
	Food Chains and Webs (Assessments) How are Earth's organisms interacting to create different food chains and webs?	Food Chains and Webs (Assessments)	Food Chains and Webs (Assessments) -Observe three soil samples and guess the composition of each sample -Recall and apply two tests to verify or disprove their guesses -Record and interpret soil	Food Chains and Webs (Assessments) -Whole group discussions -Hands on group activities -Delta Science Modules: Food Chains and Webs activity sheets -Teacher created <i>check-</i>	Food Chains and Webs (Assessments) -Delta Science Modules: Food Chains and Webs (2011)	Food Chains and Webs (Assessments) -Computer -Elmo -SMART Board -YouTube

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	<p>Earth, Moon, and Sun (Solar Journal) How are the Earth, Moon, and Sun related?</p>	<p>Earth, Moon, and Sun (Solar Journal) -Horizon -Sunrise -Sunset</p>	<p>test findings -Construct a cricket home and explain its contents -Identify the body parts of a cricket -Complete a chart describing different animals' places in the food chain -Draw a food web connecting five animals -Describe predator-prey relationships among four animals -Recall and describe owl pellets and their dissection -Explain the relationship between numbers of predators and prey in the food chain -Infer that a diverse food supply improves an animal's chances for survival</p> <p>Earth, Moon, and Sun (Solar Journal) -Keep an ongoing record of the times and positions of sunset and sunrise -Recognize the apparent motion of the Sun -Prepare data for use in future activities</p>	<p><i>ups</i></p> <p>Earth, Moon, and Sun (Solar Journal) -Whole group discussions -Hands on group activities -Delta Science Modules: Earth, Moon, and Sun activity sheets -Teacher created <i>check-ups</i></p>	<p>Earth, Moon, and Sun (Solar Journal) -Delta Science Modules: Earth, Moon, and Sun (2006)</p>	<p>Earth, Moon, and Sun (Solar Journal) -Computer -Elmo -SMART Board -YouTube</p>

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	Earth, Moon, and Sun (Lunar Journal) How are the Earth, Moon, and Sun related?	Earth, Moon, and Sun (Lunar Journal) -Altitude -Lunar	Earth, Moon, and Sun (Lunar Journal) -Observe and record the position and appearance of the Moon over time -Prepare data for use in future activities	Earth, Moon, and Sun (Lunar Journal) -Whole group discussions -Hands on group activities -Delta Science Modules: Earth, Moon, and Sun activity sheets -Teacher created <i>check-ups</i>	Earth, Moon, and Sun (Lunar Journal) -Delta Science Modules: Earth, Moon, and Sun (2006)	Earth, Moon, and Sun (Lunar Journal) -Computer -Elmo -SMART Board -YouTube
March	Earth, Moon, and Sun (Sizes of Solar System Objects) How are the Earth, Moon, and Sun related?	Earth, Moon, and Sun (Sizes of Solar System Objects) -Orbit -Planet -Solar system -Star	Earth, Moon, and Sun (Sizes of Solar System Objects) -Review the components of our solar system -Draw and cut out planets, the dwarf planet Pluto, and the Moon for a class solar system model -Compare the sizes of the planets, Pluto, the Moon, and the Sun	Earth, Moon, and Sun (Sizes of Solar System Objects) -Whole group discussions -Hands on group activities -Delta Science Modules: Earth, Moon, and Sun activity sheets -Teacher created <i>check-ups</i>	Earth, Moon, and Sun (Sizes of Solar System Objects) -Delta Science Modules: Earth, Moon, and Sun (2006)	Earth, Moon, and Sun (Sizes of Solar System Objects) -Computer -Elmo -SMART Board -YouTube
	Earth, Moon, and Sun (Distances in the Solar System) How are the Earth, Moon, and Sun related?	Earth, Moon, and Sun (Distances in the Solar System)	Earth, Moon, and Sun (Distances in the Solar System) -Create walk-through scale model of the solar system -Calculate the distance of their team's planet or dwarf planet from other objects in the solar system -Map the solar system	Earth, Moon, and Sun (Distances in the Solar System) -Whole group discussions -Hands on group activities -Delta Science Modules: Earth, Moon, and Sun activity sheets -Teacher created <i>check-ups</i>	Earth, Moon, and Sun (Distances in the Solar System) -Delta Science Modules: Earth, Moon, and Sun (2006)	Earth, Moon, and Sun (Distances in the Solar System) -Computer -Elmo -SMART Board -YouTube

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			scale model			
April-May	<p>Earth, Moon, and Sun (Distances in the Solar System) How are the Earth, Moon, and Sun related?</p>	<p>Earth, Moon, and Sun (Distances in the Solar System) -Gravity -Orbit -Inertia -Revolution -Rotation -Phases -Solar eclipse -Lunar eclipse -Tide</p>	<p>Earth, Moon, and Sun (Distances in the Solar System) -Describe the movements of Earth and the Sun -Explain how Earth's movements cause the seasons and day and night -Describe the features of the Moon -Identify the relative positions of Earth, the Moon, and the Sun that produce each of the Moon's major phases -Explain how eclipses and tides occur -Describe how the Moon causes tides on Earth</p>	<p>Earth, Moon, and Sun (Distances in the Solar System) -Whole group discussions -Hands on group activities -Delta Science Modules: Earth, Moon, and Sun activity sheets -Teacher created <i>check-ups</i></p>	<p>Earth, Moon, and Sun (Distances in the Solar System) -Delta Science Modules: Earth, Moon, and Sun (2006) -Macmillan/McGraw-Hill: <i>Earth Science A Closer Look</i></p>	<p>Earth, Moon, and Sun (Distances in the Solar System) -Computer -Elmo -SMART Board -YouTube -KidTube</p>