



Science Inquiry at Home

An Introduction to Science Inquiry at Home – First Grade


These exploration suggestions are designed to support parents and students explore science content at home. Each suggestion starts with a question to answer. Included here are suggested materials and activities to help answer each question and suggestions on ways to communicate the findings.

Consider creating a science journal to record observations, take notes, and reflect on you learning. The science journal may be on paper or on a computer. You could choose to use a spiral notebook or a composition book. You could have a journal for each topic, each quarter, or one for the whole year.

What is my child learning in science?	Materials to support hands-on science activities at home	Questions to ask my child as we are exploring science at home
 plan and conduct an investigation that addresses the question of whether vibrating objects create sound (1.2 b).	Science journal Any one of the following: Rubber bands Guitar or other string instrument Empty plastic bottle Plastic bottle with some water in it Cereal or tissue box Spoon	<p>How many different ways can sounds be made?</p> <p>Try making sounds in as many different ways as possible. This could be plucking a string, blowing across a bottle, tapping a box with a spoon. What do all these ways have in common? Sound is created by vibrating objects. Can you identify what was vibrating in each case?</p> <p>Talk to someone else in the family and see if they know other ways to make noise.</p> <p>Can you make a whistle from a blade of grass? Some adults did that when they were kids. Ask some of the adults around you how they made whistles when they were young or find some ways using the internet. Using your science journal, draw pictures or write about all the different ways you found that you can make sound.</p>
 make and communicate	Science journal Assorted objects or toys	<p>How can I group different objects? Why might grouping objects according to characteristics be helpful?</p>

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<p>observations about the physical properties of materials (1.3 a)</p> <p>🍃 classify objects based on physical properties and explain how the objects were classified (1.3 a)</p>		<p>With any group of objects around the house, find a way to classify or group the objects. You can use the physical properties of the objects: color, texture, odor, ability to dissolve in water, and the amount of light passing through it. How did you decide to group the objects? Do you group your clothes or toys in a certain way? Describe the choices that were made in grouping the objects. Can you find another way to group them? Which way is the best, and why do you think that? Write about what you did in your science journal.</p>
<p>🍃 plan and conduct an investigation to determine if plants need sunlight and water to grow (1.4 a)</p>	<p>Science journal Seeds Water Paper towel Plastic sandwich bag or Two small plants in pots</p>	<p>What do plants need to grow?</p> <p>Through conversation, figure out what plants need to grow. You can grow some seeds in a small cup and dirt, or on a damp paper towel in a plastic sandwich bag. Try putting some seeds in the dark and some in a window, or keep some of the seeds damp and others dry. Check the plants every day and draw or write what you notice happening in your science journal..</p> <p>If possible, grow some plants in a pot outdoors.</p>
<p>🍃 observe animals in the schoolyard and describe their physical properties (1.5 b)</p> <p>🍃 predict what type of home (land or water) an animal would live in</p>	<p>Science journal Book about animals</p>	<p>How do we tell different animals apart? Can we tell where an animal lives by what they look like?</p> <p>Look out the window, take a walk in the neighborhood, or look at a book about animals. What do you notice about the animals? How can you tell them apart? When you look at an animal, can you tell where it lives? How do you know? Write about what you discovered in your science journal.</p>

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based on its physical characteristics (1.5 b)		
<ul style="list-style-type: none"> design and construct a model of a habitat for an animal based on physical characteristics (1.5 a) 	Science journal Paper Colored pencils Clay Popsicle sticks Books or videos on favorite animal	<p>Where do animals live? Could they move to another place?</p> <p>Pick an animal and do some research on where the animal lives. Why does that animal live there? Draw a picture or make a model with clay, playdoh, or other objects (use your imagination) of your animal’s habitat and tell a story about why your animal lives there. Write about what you discovered in your science journal.</p>
<ul style="list-style-type: none"> conduct a simple investigation to show how the sunlight changes the temperature at different times during the day (1.6 b) design a structure to reduce the change in temperature that occurs in sunlight throughout the day (1.6 a, b) 	Science journal Digital thermometer or phone weather app Cardboard Fabric Aluminum foil Plastic wrap Paper plates, or other supplies from around the house.	<p>How can we protect ourselves from the heat of the sun?</p> <p>Find a location outside or by a window where you can take the temperature throughout the day. Every hour, write down the temperature and notice whether the thermometer is in the sun. Now, design and make a structure that will keep the temperature from changing. Take the temperature inside and outside your structure during the day. Can you make a structure where the temperature changes very little? Draw a picture of the structures that you tried in your science journal and explain what works best to keep the temperature from changing.</p>
<ul style="list-style-type: none"> observe and record seasonal changes in plants, including budding, growth, and losing leaves; 	Science journal Outdoor plants	<p>How do plants change through the year? Why do they change?</p> <p>Find a plant in your yard or a park that you want to observe throughout the year. Take observations of your plant every two weeks or so. Keep a record of your observations for your plants.</p>

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<p>recognize the seasons during which budding and losing leaves will most likely occur (1.7 c)</p>		<p>What changes do you notice as the seasons change? Draw pictures or write about the changes in your science journal.</p>
<p> determine a resource in the school or home that may be conserved, brainstorm solutions, and implement a plan to address the conservation concern (1.8 a, b, c).</p>	<p>Science journal Bags or boxes for recycling trash in your home.</p>	<p>How can we make sure we put as few things in the trash as possible?</p> <p>This is a perfect time to set up a recycling system where you live. Interview an adult and find out how recycling is done. Is it part of the trash pickup? Must you bring recycling to a special place? Talk to the adults around you and see if you can set up recycling in your home. You can decorate bags or boxes for aluminum, paper, and plastic recycling. Write about what you decided to do in your science journal.</p>