



Quarter One	
Skills	Activities
Describe the properties of the layers of the atmosphere.	<ul style="list-style-type: none"> <li>➤ Look at a website like Windows to the Universe (<a href="http://www.windows2universe.org/earth/Atmosphere/layers.html">http://www.windows2universe.org/earth/Atmosphere/layers.html</a>) to see how the atmosphere changes as you go from Earth's surface into space.</li> <li>➤ Ask your child to explain how each layer is different.</li> <li>➤ The child can make a picture of the layers of the atmosphere and have them list three facts about each layer on the picture (include the ozone layer and the ionosphere).</li> </ul>
Analyze how water moves between Earth's lakes, rivers and oceans and the atmosphere (water cycle).	<ul style="list-style-type: none"> <li>➤ Have your child make flashcards using the vocabulary from the water cycle (evaporation, condensation, precipitation, transpiration, runoff, ground water, surface water) and place them on a table in order and explain how each step leads to the next one.</li> <li>➤ Your child can print out and color a place mat for a younger sibling or cousin (found at <a href="http://ga.water.usgs.gov/edu/watercycleplacemat.html">http://ga.water.usgs.gov/edu/watercycleplacemat.html</a>) and use it to explain the water cycle to them. This can be covered in contact paper and used at mealtimes to review.</li> </ul>
Analyze the impact of large-scale weather systems on the local weather.	<ul style="list-style-type: none"> <li>➤ Have your child watch the weather report for the nation, and then see how the weather systems travel from west to east across the country.</li> <li>➤ Ask your child how rain, wind or cold/hot temperatures somewhere else changes the weather in Bullhead City.</li> </ul>
How the Sun, the atmosphere and bodies of water all affect weather.	<ul style="list-style-type: none"> <li>➤ Ask your child how clouds, wind or being near an ocean can change the weather of a certain place.</li> </ul>
Describe the various ways scientists explore the oceans and the atmosphere.	<ul style="list-style-type: none"> <li>➤ Ask your child how scientists can use the following objects to explore the atmosphere, lakes, rivers and oceans: hot air balloons, weather balloons, airplanes, SCUBA gear, submarines, robots.</li> <li>➤ Make a hot air balloon with your child. Instructions can be found at <a href="http://www.wikihow.com/Make-a-Mini-Flyable-Hot-Air-Balloon-with-Candles">http://www.wikihow.com/Make-a-Mini-Flyable-Hot-Air-Balloon-with-Candles</a></li> </ul>
Describe the use of technology in science related careers (what tools do different kinds of scientists use).	<ul style="list-style-type: none"> <li>➤ Ask your child what tools or equipment they think doctors, meteorologists (weather scientists), marine biologists (scientists who study water animals and plants) or some other scientist uses.</li> </ul>
Identify how diverse people from different cultures, past, present, have made important contributions to scientific discoveries.	<ul style="list-style-type: none"> <li>➤ Have your child look up a scientist from another country and find out what scientific discoveries or inventions that person made.</li> </ul>



Quarter Two	
Skills	Activities
Perform measurements using appropriate tools.	<ul style="list-style-type: none"> <li>➤ Cook simple foods with your child such as Jell-O or make drinks like Kool-Aid.</li> <li>➤ Have your child measure objects around the house in centimeters and meters.</li> </ul>
Create a list of instructions that others can follow in carrying out a procedure.	<ul style="list-style-type: none"> <li>➤ Have your child give you directions to another place from your house.</li> <li>➤ Have him or her tell someone how to do something like program a DVR or mp3 player.</li> </ul>
Apply the scientific process of observing to other situations.	<ul style="list-style-type: none"> <li>➤ Play a game where one person is blindfolded and have that person identify sounds, identify foods by taste, and objects by touch.</li> </ul>
Demonstrate safe behavior and appropriate procedures.	<ul style="list-style-type: none"> <li>➤ Have your child come up with safety procedures for your kitchen, yard and garage/shed.</li> <li>➤ While your child is helping with different activities around the house, ask them what safety precautions you should take (oven mitts taking things out of the oven, eye protection near a saw, etc.).</li> </ul>
Describe how environmental conditions, such as water quality, affect the quality of life for people and animals.	<ul style="list-style-type: none"> <li>➤ Have your child look at a recent water bill and see how much water has been used each month for the past year by the household. Ask them why they think in some months more water was used than in others.</li> <li>➤ Have the child find the past year's water quality report (this is sent to all water customers once a year and can also be requested from the water company) and find out where Bullhead City's water comes from, what substances are found in the water in Bullhead City, where the substances come from, and what health problems can be caused by having high levels of these substances in the water.</li> </ul>
Identify ways in which electrical energy is generated using renewable (wind, dams, solar) and nonrenewable resources (fossil fuels, nuclear reactions).	<ul style="list-style-type: none"> <li>➤ As you go around town with your child, ask them to try and find ways that electricity is generated (windmills, dams or solar panels) using renewable resources. Ask them about ways their family uses nonrenewable resources (propane gas grill, gasoline in a car or jet ski, etc.).</li> </ul>
Identify several ways in which energy may be stored.	<ul style="list-style-type: none"> <li>➤ Have your child go around the home and find different kinds of batteries that are used (car, mp3 player, cell phone, flashlight, etc.).</li> </ul>
Compare the following ways in which energy may be transformed from mechanical to electrical or electrical to thermal (heat).	<ul style="list-style-type: none"> <li>➤ Have your child look for appliances around their house that get hot when they are plugged in (electrical to thermal transformation).</li> </ul>
Explain how thermal energy (heat energy) can be transferred by conduction (touching an object), convection (circulating liquid or gas) or radiation (rays or waves).	<ul style="list-style-type: none"> <li>➤ Have your child go outside on a hot day and try and identify how different objects got hot and can transfer heat to him or her (standing on hot road, touching wood or plastic objects, standing in the Sun, etc.).</li> </ul>



Quarters Three and Four

Skills	Activities
Describe the basic structure and function of a cell including: cell wall, cell membrane, nucleus.	<ul style="list-style-type: none"> <li>➤ Visit a website, such as Sheppard Software's Cell Game at <a href="http://www.sheppardsoftware.com/health/anatomy/cell/index.htm">http://www.sheppardsoftware.com/health/anatomy/cell/index.htm</a> to learn the parts of plant, animal and bacteria cells and what they do.</li> </ul>
Explain the hierarchy of cells, tissues, organs, and systems.	<ul style="list-style-type: none"> <li>➤ Visit a website, such as <a href="http://www.kidinfo.com/health/human_body.html">http://www.kidinfo.com/health/human_body.html</a> to see how the parts of a body work together.</li> <li>➤ Have your child make a bulls-eye on paper. Have them fill in the words cell, tissue, organ and system (cells in the center to systems on the outer ring) to see how each level is made of the one before and gets bigger with each ring.</li> </ul>
Relate the structures of living organisms to their functions in Plants.	<ul style="list-style-type: none"> <li>➤ Have your child look at different plants and see how the leaves, roots and stems are different. Provide plants that your child can cut open to see how the stems are different inside. Place celery or white carnations or daisies in water with food coloring for a few days and then cut them stems open to see where the water traveled.</li> </ul>
Relate the structures of living organisms to their functions in Animals.	<ul style="list-style-type: none"> <li>➤ Websites like <a href="http://www.sheppardsoftware.com/health.htm">http://www.sheppardsoftware.com/health.htm</a> have games that show the parts of the body and how they work together.</li> <li>➤ Explain what parts of the human body are used in digestion, circulation, respiration, and movement.</li> <li>➤ The child can make flashcards to describe different parts of the body, including drawings.</li> <li>➤ Trace the path of oxygen, blood and food through the body.</li> <li>➤ Compare the parts of the human body to those of other animals, such as fish, birds, amphibians, and reptiles.</li> </ul>
Describe how the various systems of living organisms work together to perform a vital function	<ul style="list-style-type: none"> <li>➤ Have your child come up with rhymes or songs to explain what parts of the body work together to do different activities such as throwing a ball or breathing.</li> </ul>