

<u>Science Benchmarks</u>	
	Grade Three
	The student will:
	Standard 1: EARTH & SPACE SCIENCE Demonstrate an understanding of the structure and systems of Earth and other bodies in the universe and their interactions.
3-1a.	Explain that when liquid water disappears, it turns into gas (vapor) in the air and can reappear as a liquid when cooled.
3-1b.	State that clouds, like fog and steam from a kettle, are made of tiny droplets of water.
3-1c.	Describe the major differences between fresh and ocean waters.
3-1d.	Investigate that chunks of rocks come in all sizes, from boulders to grains of sand and even smaller.
3-1e.	Identify that rock is composed of different combinations of minerals.
3-1f.	Recognize that rock contains evidence of the minerals, temperatures, and forces that created it.
3-1g.	Explain that the Sun provides the light and heat necessary to maintain the temperature of the Earth.
	Standard 2: LIFE SCIENCE Understand the characteristics and structures of living things, the processes of life and how living things interact with each other and their environment.
3-2a.	Explore the plant life cycle including growth and development, reproduction, and death.
3-2b.	Discriminate ways that plants and animals closely resemble their parents.
3-2c.	Explain that there is variation among individuals within a population.
3-2d.	State that animals and plants have a great variety of body plans and internal structures that serve different functions for them to make/find food, reproduce, grow, adapt, and survive.
3-2e.	Relate that some source of “energy” is needed for organisms to live and grow.
3-2f.	Confirm that over the whole Earth, organisms are growing: the old ones are producing, dying, and decaying, and the new organisms are being produced by the old ones.

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	Standard 3: PHYSICAL SCIENCE Demonstrate an understanding of the physical and chemical properties of matter, the forms and properties of energy, and how matter and energy are interrelated.
3-3a.	Demonstrate that objects can be described and classified by their composition and their physical properties.
3-3b.	Know that things have properties that can be used to tell them apart and to find which of them are alike.
3-3c.	Demonstrate that vibrating objects produce sound.
3-3d.	Investigate that properties of sound, such as pitch and loudness, can be altered by changing the properties of the sound's source.
3-3e.	Investigate ways that simple machines can help improve work and force.
	Standard 4: SOCIETY & TECHNOLOGY Demonstrate an understanding of scientific knowledge and technological design in society.
3-4a.	Investigate that it is helpful to work with a team in science and share findings with others.
3-4b.	State that scientists use different kinds of investigations (observation, data collection, controlled experiments) depending on the questions they are trying to answer.
3-4c.	Know that scientists develop explanations using evidence and what they already know about the world; good explanations are based on evidence from investigations.
3-4d.	Recognize that people have always had questions about their world; science is one way of answering questions and explaining the natural world.
3-4e.	Know that people continue inventing new ways of doing things, solving problems, and getting work done; these new ideas and inventions often affect other people – sometimes the effects are good and sometimes they are bad.
3-4f.	Distinguish between objects that occur in nature and ones that have been designed and made by people to solve human problems.
3-4g.	Know that although men and women doing scientific inquiry have learned much about the objects, events, and phenomena in nature, there is still much more to be understood.
3-4h.	Give examples of scientists working in many different settings.
3-4i.	Use simple equipments and tools to gather scientific data and extend the senses (e.g., rulers, thermometers, magnifiers, microscopes, and calculators).
3-4j.	Explain that learning can come from careful observations and simple experiments.