Grade 1 Expectations in Science and Engineering/Technology

*Learning standards are taken from both the 1999 and May 2001 the **MA Science and Technology /Engineering Curriculum Framework.** The numbers correspond to the numbers in the May 2001 document.. All students are expected to master all grade level expectations.*

INQUIRY AND EXPERIMENTATION

Scientific inquiry and experimentation should not be taught or tested as separate, stand-alone skills. Rather, opportunities for inquiry and experimentation should arise within a well-planned curriculum in the domains of science. They should be assessed through examples drawn from the life, physical, and earth and space science standards so that it is clear to students that in science, *what* is known does not stand separate from *how* it is known.

In Grade 1 scientific investigations can center on student questions, observations, and communication about what they observe.

Curriculum Framework Learning Standard	Resources
Ask questions about objects, organisms, and events in the environment.	
Tell about why and what would happen if?	
Make predictions based on observed patterns**.**	
Name and use simple equipment and tools (e.g., rulers, meter sticks, thermometers, hand lenses, and balances) to gather data and extend the senses.	
Record observations and data with pictures, numbers, or written statements.	
Discuss observations with others.	

Strand 1: DOMAINS OF SCIENCE
EARTH AND SPACE SCIENCE

Curriculum Framework Learning Standards	Resources
Earth's Materials	
1. Recognize that water, rocks, soil, and living organisms are found on the earth's surface.	**Weather Changes** District Created
The Weather	
3. Describe the weather changes from day to day and over the seasons**.**	**Weather Changes** District created
The Sun as a source of light and heat	
4. Recognize that the sun supplies heat and light to the earth and is necessary for life.	**Weather Changes** District created
Periodic Phenomena	
5. Identify that some events around us have repeating patterns, including the seasons of the year, day and night.	**Weather Changes** **Night and Day** District Created

Strand 2: DOMAINS OF SCIENCE
LIFE SCIENCE

Curriculum Framework Learning Standards	Resources
Characteristics of Living Things	
1. Plants are living things that grow, reproduce, and need food and water. These characteristics make them different from nonliving things. .	**Living Things Insights** • Learning Experiences 7,8,9,10,11,13
2. Differentiate between living and non-living things. Group both living and nonliving things according to the characteristics that they share.	**Living Things Insights** • Learning Experiences 1,2,4,11,12
4. Describe ways in which many **plants** and animals closely resemble their parents in observed appearance.	**Living Things Insights** • Learning Experiences 3,8,9
Living Things and Their Environment	
6. Recognize that people and other animals interact with the environment through their senses of sight, hearing, touch, smell, and taste.	**Living Things** Insights Learning Experiences 1,2 **The Senses** Insights Learning Experiences 1-13
7. Recognize changes in appearance that animals and plants go through as the season's change.	**Living Things Insights** Learning Experiences 2,4
8. Identify the ways in which an organism's habitat provides for its basic needs (plants require air, water, nutrients, and light; animals require food, water, air, and shelter)	**Living Things Insights** Learning Experiences 9,10,11,12,13

STRAND 3 DOMAINS OF SCIENCE
THE PHYSICAL SCIENCES

Grade 1 does not address this standard