

Kindergarten Expectations in Science and Engineering/ Technology

Learning standards are taken from both the 1999 and the May 2001 MA Science and Technology/Engineering Curriculum Framework. The numbers correspond to the numbers in the 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 kindergarten 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 SCIENCE**

Curriculum Framework Learning Standard	Resources
Earth Materials	
1. Recognize that water, rocks, soil, and living organisms can be found on earth's surface. <ul style="list-style-type: none"> • Understand that rocks have many different appearances and can be sorted according to their distinct, observable properties. 	Pebbles, Sand and Silt FOSS Investigations 1, 2

**Strand 2: DOMAINS OF SCIENCE
LIFE SCIENCES
(Kindergarten does not address this standard)**

**Strand 3: DOMAINS OF SCIENCE
THE PHYSICAL SCIENCES**

Curriculum Framework Learning Standard	Resources
Properties of Materials	
1. Sort objects by observable properties such as size, shape, color, and texture.	Pebbles, Sand, and Silt FOSS Investigations 1, 2
Position and Motion	
3. Describe the various ways that objects can move, such as in a straight line, zigzag, round and round, back and forth, fast and slow.	Balls and Ramps Insights Learning Experiences 5,6,7,10
5. Recognize that under some conditions, objects can be balanced.	Balls and Ramps Insights Learning Experiences 12,13

Strand 4: TECHNOLOGY/ENGINEERING

Curriculum Framework Learning Standard	Resources
Materials and Tools	