# Kansas Science Standards: K-4 Grade-by-Grade Version

The Kansas State Science Education Standards include standards, benchmarks, indicators, and examples which are designed to assist Kansas educators in selecting and developing local curricula, carrying out instructions, and assessing students' progress. They will also serve as the foundation for the development of state assessments in science. These standards, benchmarks, indicators, and examples represent high, yet reasonable expectations for all students.
The Kansas State Science Education Standards:

- Bring coordination, consistency, and coherence to the improvement of science education in Kansas.

- ***Advocate*** that science education must be developmentally appropriate and reflect a systematic, progressive approach throughout the elementary, middle, and high school years.
- Are not intended to be viewed as a state curriculum or instructional strategy. The content embodied in the standards can be organized and presented with many different emphases and perspectives in local district curricula.

**Purpose of this Document**
This document is one example of a breakdown of indicators into grade levels. This particular breakdown is not intended to be the only organizational option but give developmentally appropriate guidance in designing local curricula.

**There are two different versions of the same indicator breakdown. The first is simply a list of indicators. The second style is the same information with more supporting documentation.**

A suggested vocabulary list has been included to give guidance as to vocabulary that is necessary for achieving proficiency on the state assessment and to help develop a scientific literate society. This list was developed using state standards and test specifications.

# Kindergarten Recommendations

(Derived from K-2 Standards Document)

| Science | |
|---|---|
| **1.1.1** | The student identifies properties of objects |
| **1.1.5** | describes an observation orally or pictorially. |
| **2.1.2** | separates or sorts a group of objects or materials by properties. |
| **3.1.4** | examines the structures/parts of living things. |
| **4.2.1** | observes and recognizes the sun, moon, stars, clouds, birds, airplanes and other objects in the sky. |
| **4.2.2** | describes that the sun provides light and warmth. |
| **4.3.1** | observes changes in the weather from day to day. |
| **4.3.3** | discusses weather safety procedures. |
| **5.1.1** | explores the way things work. |
| **6.1.1** | engages in personal care. |
| **6.1.2** | discusses healthy foods. |
| **6.1.3** | discusses that humans need to practice being safe. |
| **7.1.1** | is involved in explorations that make his/her mind wonder and know that he/she is practicing science. |
| **7.1.2** | uses technology to learn about people in science. |

| K-2 Common Vocabulary | Kindergarten Vocabulary |
|---|---|
| describe | airplanes |
| explore | birds |
| objects | clouds |
| observe | health |
| organism | light |
| properties | material |
| safety | moon |
| scientist | personal care |
| structure | safety |
| weather | sky |
| predict | sort |
| graph | stars |
| nutrition | sun |
| texture | warmth |

# 1st Grade Recommendations

(Derived from K-2 Standards Document)

| Science | |
|---|---|
| **1.1.2** | The student classifies and arranges groups of objects by a variety of properties, one property at a time. |
| **1.1.5** | describes an observation orally or pictorially. |
| **2.1.3** | compares the properties of solids and liquids. |
| **2.1.4** | describes the position of an object in relation to other objects. |
| **3.1.1** | discusses that organisms live only in environments in which their needs can be met. |
| **3.1.3** | observes living things in various environments |
| **3.1.4** | examines the structures/parts of living things. |
| **4.1.1** | observes, compares, and sorts earth materials. |
| **4.3.3** | discusses weather safety procedures. |
| **5.1.1** | explores the way things work. |
| **6.1.1** | engages in personal care. |
| **6.1.2** | discusses healthy foods. |
| **6.1.3** | discusses that humans need to practice being safe. |
| **7.1.1** | is involved in explorations that make his/her mind wonder and know that he/she is practicing science. |
| **7.1.2** | uses technology to learn about people in science. |

| K-2 Common Vocabulary | 1st grade Vocabulary |
|---|---|
| describe | basic needs |
| explore | classify (sort) |
| objects | compare |
| observe | earth materials |
| organism | examine |
| properties | liquid |
| safety | personal care |
| scientist | safety |
| structure | solid |
| weather | habitat |
| Predict | |
| Graph | |
| Nutrition | |
| texture | |

# 2nd Grade Recommendations

(Derived from K-2 Standards Document)

| Science | |
|---|---|
| **1.1.3** | The student uses appropriate materials, tools, and safety procedures to collect information. |
| **1.1.4** | asks and answers questions about objects, organisms, and events in his/her environment. |
| **1.1.5** | describes an observation orally or pictorially. |
| **2.1.1** | observes properties of objects and measures or describes those properties using age-appropriate tools and materials. |
| **3.1.2** | observes life cycles of different living things. |
| **3.1.4** | examines the structures/parts of living things. |
| **4.3.2** | records weather changes daily. |
| **4.3.3** | discusses weather safety procedures. |
| **5.1.2** | experiences science through technology. |
| **6.1.1** | engages in personal care. |
| **6.1.2** | discusses healthy foods. |
| **6.1.3** | discusses that humans need to practice being safe. |
| **7.1.1** | Is involved in explorations that make his/her mind wonder and know that he/she is practicing science. |
| **7.1.2** | uses technology to learn about people in science. |

| K-2 Common Vocabulary | 2nd Grade Vocabulary |
|---|---|
| describe | events |
| explore | health |
| objects | life cycle |
| observe | measure |
| organism | safety |
| properties | tool |
| safety | habitat |
| scientist | thermometer |
| structure | magnifiers |
| weather | balances |
| predict | scales |
| graph | measuring cups |
| nutrition | measuring spoons |
| texture | |

# 3rd Grade Recommendations

(Derived from 3-4 Standards Document)

| Science | |
|---|---|
| **1.1.1** | ▲ The student asks questions that he/she can answer by investigating. |
| **1.1.2** | ▲ plans and conducts a simple investigation. |
| **1.1.3** | ▲employs appropriate equipment, tools, and safety procedures to gather data. |
| **1.1.4** | ▲begins developing the abilities to communicate, critique, analyze his/her own investigations, and interprets the work of other students. |
| **2.1.2** | ▲describes and classifies objects by more than one property. |
| **2.1.3** | ▲observes and records how one object interacts with another object. |
| **2.1.4** | ▲recognizes and describes the differences between solids, liquids, and gases |
| **2.2.1** | ▲moves objects by pushing, pulling, throwing, spinning, dropping, and rolling; and describes the motion. |
| **2.2.2** | describes the change in position of objects when moved. |
| **2.4.1** | ▲demonstrates that magnets attract and repel. |
| **3.1.1** | ▲observes different organisms and compares and contrasts how similar functions are served by different structural characteristics. |
| **3.1.2** | ▲compares basic needs of different organisms in their environment. |
| **3.1.3** | discusses ways organisms use their senses to survive in their environments. |
| **4.1.1** | ▲ collects, observes properties, and classifies a variety of earth materials in his/her environment. |
| **4.1.2** | experiments with a variety of soil types (clay, silt, sand, and loam) |
| **4.2.1** | observes the moon and stars. |
| **4.2.2** | observes and compares the length of shadows. |
| **4.2.3** | ▲discusses that the sun provides light and heat (electromagnetic radiation) to maintain the temperature of earth. |
| **5.1.1** | ▲identifies a simple design problem (designs a plan, implements a plan, evaluates the results, makes changes to improve the product, and communicates the results.) |
| **5.2.1** | will understand that the design process produces knowledge that can be used to solve a problem and improve our world. |
| **5.2.2** | invents a product to solve problems. |
| **5.2.3** | works with others to solve problems. |
| **5.2.5** | investigates how scientists use tools to observe. |
| **6.1.1** | ▲discusses the nutritional value of various foods and their contribution to health. |
| **6.1.2** | discusses that safety involves preventing injury by avoiding inappropriate risks and dangers. |
| **6.1.3** | assumes some responsibility for his/her own health, and the health and well being of others. |
| **6.2.1** | defines pollution. |

| | |
|---|---|
| **6.2.3** | practices reducing, reusing, and recycling. |
| **7.1.1** | recognizes that students participate in science inquiry by asking questions. (ties in with 1.1.1) |

| Grades 3-4 Common Vocabulary | Grade 3 Content Vocabulary | Grade 3 Tested Vocabulary |
|---|---|---|
| Analyze | Clay | Analyze |
| Compare | Silt | Basic needs |
| Contrast | Sand | Characteristics |
| Evidence | Loam | Critique |
| Inquiry | Evaluate | Design |
| Interpret | Inquiry | Earth materials |
| Investigate | Invent | Environment |
| Observes | Pollution | Equipment |
| Organism | Reduce | Evaluate |
| Properties | Reuse | Function |
| Records | Recycle | Interpret |
| Technology | Soil | Magnets, attract, repel |
| Tools | Survive | Motion |
| Predict | humus | Nutritional value |
| Problem | | Pushing, pulling, throwing |
| Procedure | | Safety procedures |
| Graph | | Solid, liquid, gas |
| Nutrition | | Spinning, dropping |
| Texture | | Rolling |
| Experiment | | Structure |
| Risk | | Poles |
| Injury | | Habitat |
| hygiene | | Hand lens |
| | | Meter stick |
| | | Tape measure |
| | | Measuring cups |
| | | Balance |
| | | Thermometer |
| | | Spring scale |
| | | Graduated cylinder |
| | | Dropper |
| | | stopwatch |

# 4th Grade Recommendations

(Derived from 3-4 Standards Document)

| Science | |
|---|---|
| **1.1.1** | ▲ The student asks questions that he/she can answer by investigating. |
| **1.1.2** | ▲ plans and conducts a simple investigation. |
| **1.1.3** | ▲employs appropriate equipment, tools, and safety procedures to gather data. |
| **1.1.4** | ▲ begins developing the abilities to communicate, critique, analyze his/her own investigations, and interprets the work of other students. |
| **2.1.1** | ▲observes properties of objects and measures those properties using appropriate tools. |
| **2.1.3** | ▲observes and records how one object interacts with another object. |
| **2.3.1** | ▲identifies that the source of sound is vibrations. |
| **2.3.2** | discriminates between sounds made by different objects. |
| **2.3.3** | discriminates between various pitches. |
| **2.4.2** | ▲designs a simple experiment to determine whether various objects will be attracted to magnets. |
| **2.4.3** | ▲constructs a simple circuit. |
| **3.2.1** | ▲compares, contrasts, and asks questions about life cycles of various organisms. |
| **4.1.3** | ▲describes properties of water and the process of the water cycle. |
| **4.1.4** | observes and records the properties of fossils and discusses what fossils are. |
| **4.3.1** | ▲describes changes in the surface of the earth. |
| **4.3.2** | ▲observes, describes, and records daily and seasonal weather changes. |
| **5.1.1** | ▲identifies a simple design problem (designs a plan, implements the plan, evaluates the results, makes changes to improve the product, and communicates the results.) |
| **5.2.1** | will understand that the design process produces knowledge that can be used to solve a problem and improve our world. |
| **5.2.4** | develops an awareness that women and men of all ages, backgrounds, and ethnic groups engage in a variety of scientific and technological work. |
| **6.1.1** | ▲discusses the nutritional value of various foods and their contribution to health. |
| **6.1.2** | discusses that safety involves preventing injury by avoiding inappropriate risks and dangers. |
| **6.1.3** | assumes some responsibility for his/her own health, and the health and well being of others. |
| **6.2.2** | develops personal actions to solve pollution problems in and around the neighborhood. |
| **7.1.2** | studies the lives of people who made scientific contributions. |

| Grades 3-4 Common Vocabulary | Grade 4 Content Vocabulary | Grade 4 Tested Vocabulary |
|---|---|---|
| Analyze | Communicate | Equipment |
| Compare | Fossils | Erosion |
| Contrast | Interact | Evaluate |
| Evidence | Pitch | Implement |
| Inquiry | Pollution | Interact |
| Interpret | Safety | Safety procedures |
| Investigate | Weather | Simple circuit |
| Observes | Records | Sound |
| Organism | Technology | Vibration |
| Properties | Tools | Water cycle |
| Predict | Volume | Design problem |
| Problem | | Simple parallel circuit |
| Procedure | | Simple series circuit |
| Graph | | Conduct electricity |
| Thermometer | | Metamorphosis |
| Nutrition | | Complete circuit |
| Texture | | Design problem |
| Energy | | Hand lens |
| Habitat | | Meter stick |
| Experiment | | Tape measure |
| Risk | | Measuring cup |
| Injury | | Balance |
| Hygiene | | Thermometer |
| | | Spring scale |
| | | Graduated cylinder |
| | | Dropper |
| | | Stopwatch |

# Kindergarten

**STANDARD 1: SCIENCE AS INQUIRY**

**The student will experience science as *full inquiry*. In the elementary grades, students begin to develop the physical and intellectual abilities of scientific inquiry.**

**Benchmark 1: The student will be involved in activities that develop skills necessary to conduct scientific inquiries.**

1. The student identifies properties of objects.

5. The student describes an observation orally or pictorially.

**STANDARD 2: PHYSICAL SCIENCE**

**The students will explore the world by observing and manipulating common objects and materials in their environment.**

**Benchmark 1: All students will develop skills to describe objects.**

2. The student separates or sorts a group of objects or materials by properties.

**STANDARD 3: LIFE SCIENCE**

**The student will begin to develop an understanding of biological concepts.**

**Benchmark 1: The student will develop an understanding of the characteristics of living things.**

4. The student examines the structures/parts of living things.

**STANDARD 4: EARTH AND SPACE SCIENCE**

**The student will observe closely the objects and materials in their *environment*.**

**Benchmark 2: The student will observe and compare objects in the sky.**

1. The student observes and recognizes the sun, moon, stars, clouds, birds, airplanes, and other objects in the sky.

2. The student describes that the sun provides light and warmth.

**Benchmark 3: The student will describe changes in weather.**

1. The student observes changes in the weather from day to day.

3. The student discusses weather safety procedures.

**STANDARD 5: SCIENCE AND TECHNOLOGY**
**The student will have a variety of educational experiences that involve science and *technology*.**

**Benchmark 1: The student will use technology to learn about the world around them.**

1. The student explores the way things work.

**STANDARD 6: SCIENCE IN PERSONAL AND ENVIRONMENTAL PERSPECTIVES**
**The student will have a variety of experiences that provide understandings for various science-related personal and environmental challenges.**

**Benchmark 1: The student will demonstrate responsibility for their own health.**

1. The student engages in personal care.
2. The student discusses healthy foods.
3. The student discusses that humans need to practice being safe.

**STANDARD 7: HISTORY AND NATURE OF SCIENCE**
**The student will experience scientific inquiry and learn about people from history.**

**Benchmark 1: The student will know they practice science.**

1. The student is involved in explorations that make his/her mind wonder and know that he/she is practicing science.
2. The student uses technology to learn about people in science.

# Grade 1

**STANDARD 1: SCIENCE AS INQUIRY**

**The student will experience science as *full inquiry*. In the elementary grades, students begin to develop the physical and intellectual abilities of scientific inquiry.**

**Benchmark 1: The student will be involved in activities that develop skills necessary to conduct scientific inquiries.**

2. The student classifies and arranges groups of objects by a variety of properties, one property at a time.

5. The student describes an observation orally or pictorially.

**STANDARD 2: PHYSICAL SCIENCE**

**The students will explore the world by observing and manipulating common objects and materials in their environment.**

**Benchmark 1: All students will develop skills to describe objects.**

3. The student compares solids and liquids.

4. The student describes the position of an object in relation to other objects.

**STANDARD 3: LIFE SCIENCE**

**The student will begin to develop an understanding of biological concepts.**

**Benchmark 1: The student will develop an understanding of the characteristics of living things.**

1. The student discusses that organisms live only in environments in which their needs can be met.

3. The student observes living things in various environments.

4. The student examines the structures/parts of living things.

**STANDARD 4: EARTH AND SPACE SCIENCE**

**The student will observe closely the objects and materials in their *environment*.**

**Benchmark 1: The student will describe properties of earth materials.**

1. The student observes, compares, and sorts earth materials.

**Benchmark 3: The student will describe changes in weather.**

3. The student discusses weather safety procedures.

**STANDARD 5: SCIENCE AND TECHNOLOGY**
**The student will have a variety of educational experiences that involve science and *technology*.**

**Benchmark 1: The student will use technology to learn about the world around them.**

1. The student explores the way things work.

**STANDARD 6: SCIENCE IN PERSONAL AND ENVIRONMENTAL PERSPECTIVES**
**The student will have a variety of experiences that provide understandings for various science-related personal and environmental challenges.**

**Benchmark 1: The student will demonstrate responsibility for their own health.**

1. The student engages in personal care.
2. The student discusses healthy foods.
3. The student discusses that humans need to practice being safe.

**STANDARD 7: HISTORY AND NATURE OF SCIENCE**

**The student will experience scientific inquiry and learn about people from history.**

**Benchmark 1: The student will know they practice science.**

1. The student is involved in explorations that make his/her mind wonder and know that he/she is practicing science.
2. The student uses technology to learn about people in science.

# Grade 2

**STANDARD 1: SCIENCE AS INQUIRY**

**The student will experience science as *full inquiry*. In the elementary grades, students begin to develop the physical and intellectual abilities of scientific inquiry.**

**Benchmark 1: The student will be involved in activities that develop skills necessary to conduct scientific inquiries.**

3. The student uses appropriate materials, tools, and safety procedures to collect information.

4. The student asks and answers questions about objects, organisms, and events in his/her environment.

5. The student describes an observation orally or pictorially.

**STANDARD 2: PHYSICAL SCIENCE**

**The students will explore the world by observing and manipulating common objects and materials in their environment.**

**Benchmark 1: All students will develop skills to describe objects.**

1. The student observes properties of objects and measures or describes those properties using age-appropriate tools and materials.

**STANDARD 3: LIFE SCIENCE**

**The student will begin to develop an understanding of biological concepts.**

**Benchmark 1: The student will develop an understanding of the characteristics of living things.**

2. The student observes life cycles of different living things.

4. The student examines the structures/parts of living things.

**STANDARD 4: EARTH AND SPACE SCIENCE**

**The student will observe closely the objects and materials in their *environment*.**

**Benchmark 3: The student will describe changes in weather.**

2. The student records weather changes daily.

3. The student discusses weather safety procedures.

**STANDARD 5: SCIENCE AND TECHNOLOGY**

**The student will have a variety of educational experiences that involve science and *technology*.**

**Benchmark 1: The student will use technology to learn about the world around them.**

2. The student experiences science through technology.

**STANDARD 6: SCIENCE IN PERSONAL AND ENVIRONMENTAL PERSPECTIVES**
**The student will have a variety of experiences that provide understandings for various science-related personal and environmental challenges.**

**Benchmark 1: The student will demonstrate responsibility for their own health.**

1. The student engages in personal care.
2. The student discusses healthy foods.
3. The student discusses that humans need to practice being safe.

**STANDARD 7: HISTORY AND NATURE OF SCIENCE**

**The student will experience scientific inquiry and learn about people from history.**

**Benchmark 1: The student will know they practice science.**

1. The student is involved in explorations that make his/her mind wonder and know that he/she is practicing science.
2. The student uses technology to learn about people in science.

# Grade 3

**STANDARD 1: SCIENCE AS INQUIRY**

**The student will experience science as *full inquiry*. In the elementary grades, students begin to develop the physical and intellectual abilities of scientific inquiry.**

**Benchmark 1: The student will develop the skills necessary to do full inquiry. *Full inquiry* involves asking a simple question, completing an *investigation*, answering the question, and sharing the results with others.**

1. ▲The student asks questions that he/she can answer by investigating.
2. ▲The student plans and conducts a simple investigation.
3. ▲The student employs appropriate equipment, tools, and safety procedures to gather data.
4. ▲The student begins developing the abilities to communicate, critique, analyze his/her own investigations, and interprets the work of other students.

**STANDARD 2: PHYSICAL SCIENCE**

**The student will increase their understanding of the *properties* of objects and materials that they encounter on a daily basis. The student will compare, describe, and sort and *classify* these materials by observable properties.**

**Benchmark 1: The student will develop skills to describe objects**.

2. ▲The student describes and classifies objects by more than one property.
3. ▲The student observes and records how one object interacts with another object.
4. ▲ The student recognizes and describes the differences between solids, liquids, and gases.

**Benchmark 2: The student will describe the movement of objects.**

1. ▲The student moves objects by pushing, pulling, throwing, spinning, dropping, and rolling; and describes the motion.
2. The student describes change in position of objects when moved.

**Benchmark 4: The student will experiment with electricity and magnetism.**

1. ▲The student demonstrates that magnets attract and repel.

**STANDARD 3: LIFE SCIENCE**
**The student will develop an understanding of biological concepts through direct experience with living things, their life cycles, and their habitats.**

**Benchmark 1: The student will develop knowledge of organisms in their environment.**

1. ▲The student observes different organisms and compares and contrasts how similar functions are served by different structural characteristics.

2. ▲The student compares basic needs of different organisms in their environment.

3. The student discusses ways organisms use their senses to survive in their environments.

**STANDARD 4: EARTH AND SPACE SCIENCE**
**The student will observe objects, materials, and changes in their environment, note their properties, distinguish one from another, and develop their own explanations making sense of their observations.**

**Benchmark 1: The student will develop an understanding of the properties of *earth materials*.**

1. ▲The student collects, observes properties, and classifies a variety of earth materials in his/her environment.

2. The student experiments with a variety of soils types (clay, silt, sand, and loam).

**Benchmark 2: The student will observe and describe objects in the sky.**

1. The student observes the moon and stars.

2. The student observes and compares the length of shadows.

3. ▲The student discusses that the sun provides light and heat (electromagnetic radiation) to maintain the temperature of the earth.

**STANDARD 5: SCIENCE AND TECHNOLOGY**
**The student will have a variety of educational experiences which involve science and technology. The student will begin to understand the design process.**

**Benchmark 1: The student will work with a technology design.**

1. ▲The student identifies a simple design problem (designs a plan, implements the plan, evaluates the results, makes changes to improve the product, and communicates the results).

**Benchmark 2: The student will apply their understanding about science and technology.**

1. The student will understand that the design process produces knowledge that can be used to solve a problem and improve our world.

2. The student invents a product to solve problems.

3. The student works with others to solve problems.

5. The student investigates how scientists use tools to observe.

**STANDARD 6: SCIENCE IN PERSONAL AND ENVIRONMENTAL PERSPECTIVES**
**The student will demonstrate personal health and environmental practices.**

**Benchmark 1: The student will develop an understanding of personal health.**

1. ▲ The student discusses the nutritional value of various foods and their contribution to health.

2. The student discusses that safety involves preventing injury by avoiding inappropriate risks and dangers.

3. The student assumes some responsibility for his/her own health, and the health and well being of others.

**Benchmark 2: The student will demonstrate an awareness of changes in the environment.**

1. The student defines pollution.

3. The student practices reducing, reusing, and recycling.

**STANDARD 7: HISTORY AND NATURE OF SCIENCE**

**The student will experience some things about scientific inquiry and learn about people from history. Benchmark 1: The student will develop an awareness that people practice science.**

1. The student recognizes that students participate in science inquiry by asking questions. (ties in with 1.1.1)

# Grade 4

**STANDARD 1: SCIENCE AS INQUIRY**

**The student will experience science as *full inquiry*. In the elementary grades, students begin to develop the physical and intellectual abilities of scientific inquiry.**

**Benchmark 1: The student will develop the skills necessary to do full inquiry. *Full inquiry* involves asking a simple question, completing an *investigation*, answering the question, and sharing the results with others.**

1. ▲The student asks questions that he/she can answer by investigating.

2. ▲The student plans and conducts a simple investigation.

3. ▲The student employs appropriate equipment, tools, and safety procedures to gather data.

4. ▲The student begins developing the abilities to communicate, critique, analyze his/her own investigations, and interprets the work of other students.

**STANDARD 2: PHYSICAL SCIENCE**

**The student will increase their understanding of the *properties* of objects and materials that they encounter on a daily basis. The student will compare, describe, and sort and *classify* these materials by observable properties.**

**Benchmark 1: The student will develop skills to describe objects**.

1. ▲The student observes properties of objects and measures those properties using appropriate tools.

3. ▲The student observes and records how one object interacts with another object.

**Benchmark 3: The student will recognize and demonstrate what makes sounds.**

1. ▲The student identifies that the source of sound is vibrations.

2. The student discriminates between sounds made by different objects.

3. The student discriminates between various pitches

**Benchmark 4: The student will experiment with electricity and magnetism.**

2. ▲The student designs a simple experiment to determine whether various objects will be attracted to magnets.

3. ▲The student constructs a simple circuit.

**STANDARD 3: LIFE SCIENCE**
**The student will develop an understanding of biological concepts through direct experience with living things, their life cycles, and their habitats.**

**Benchmark 2: The student will observe and illustrate the life cycles of various organisms.**

1. ▲The student compares, contrasts, and asks questions about life cycles of various organisms.

**STANDARD 4: EARTH AND SPACE SCIENCE**
**The student will observe objects, materials, and changes in their environment, note their properties, distinguish one from another, and develop their own explanations making sense of their observations.**

**Benchmark 1: The student will develop an understanding of the properties of *earth materials*.**

3. ▲The student describes properties of water and the process of the water cycle.

4. The student observes and records the properties of fossils and discusses what fossils are.

**Benchmark 3: The student will develop skills necessary to describe changes in the earth and weather.**

1. ▲The student describes changes in the surface of the earth.

2. ▲The student observes, describes, and records daily and seasonal weather changes.

**Standard 5: SCIENCE AND TECHNOLOGY**
**The student will have a variety of educational experiences which involve science and technology. The student will begin to understand the design process.**

**Benchmark 1: The student will work with a technology design.**

1. ▲The student identifies a simple design problem (designs a plan, implements the plan, evaluates the results, makes changes to improve the product, and communicates the results).

**Benchmark 2: The student will apply their understanding about science and technology.**

1. The student will understand that the design process produces knowledge that can be used to solve a problem and improve our world.

4. The student develops an awareness that women and men of all

ages, backgrounds, and ethnic groups engage in a variety of scientific and technological work.

**STANDARD 6: SCIENCE IN PERSONAL AND ENVIRONMENTAL PERSPECTIVES**
**The student will demonstrate personal health and environmental practices.**

**Benchmark 1: The student will develop an understanding of personal health.**

1. ▲The student discusses the nutritional value of various foods and their contribution to health.

2. The student discusses that safety involves preventing injury by avoiding inappropriate risk and dangers.

3. The student assumes some responsibility for his/her own health, and the health and well being of others.

**Benchmark 2: The student will demonstrate an awareness of changes in the environment.**

2. The student develops personal actions to solve pollution problems in and around the neighborhood.

**STANDARD 7: HISTORY AND NATURE OF SCIENCE**

**The student will experience some things about scientific inquiry and learn about people from history.**

**Benchmark 1: The student will develop an awareness that people practice science.**

2. The student studies the lives of people who made scientific contributions.