

# SCIENCE

## Nebraska Early Learning Guidelines for Ages 3 to 5

- S.01**            **Scientific Skills and Methods**
- \* Child develops scientific skills and methods
    - + Makes observations, and describes objects and processes
    - + Begins to make comparisons between objects that have been observed
    - + Begins to find answers to questions through active investigation
  - \* Child uses sentences that include two or more ideas with descriptive details
  - \* Child uses senses, materials, tools, technology, events in nature, and the environment to investigate and expand knowledge
- S.02**            **Scientific Knowledge**
- \* Child shows interest in active investigations by observing, describing, and discussing
  - \* Child describes or represents a series of events in the correct sequence
  - \* Child demonstrates understanding of natural processes and simple cause and effect
  - \* Child shows interest in measurement of time, length, distance, and weight
  - \* Child develops increased ability to observe and discuss things that are similar and different
  - \* Child can differentiate between living and nonliving organisms

# SCIENCE

## Scope and Sequence for 3 year olds

Objective	Throughout the Year
<b>Scientific Inquiry Skills</b>	<ul style="list-style-type: none"> <li>*Observes and explores things in the environment</li> <li>*Reacts to changes</li> <li>*Manipulates objects to understand their properties</li> <li>*Connects new observations to what he or she already knows</li> <li>*Identifies problems, makes predictions, thinks of ways to solve problems, and tries possible solutions</li> <li>*Organizes information</li> <li>*Makes comparisons and classifies</li> <li>*Communicates with others about discoveries</li> <li>*Represents his or her thinking through drawing, dramatizing, graphing, or making models</li> </ul>
<b>Living Things</b>	<ul style="list-style-type: none"> <li>*Shows a growing ability to classify living and nonliving things</li> <li>*Communicates about the characteristics of living things</li> <li>*Demonstrates understanding that living things grow, change and reproduce</li> <li>*Shows awareness of life in different environments or habitats</li> <li>*Groups or categories living things, e.g., appearance, behavior, plant, or animal</li> <li>*Demonstrates awareness that living things go through a growth cycle</li> </ul>
<b>Physical Properties of Objects and Materials</b>	<ul style="list-style-type: none"> <li>*Examines, describes, and measures the observable features of objects</li> <li>*Demonstrates understanding that objects are made from one or more materials, e.g., metal, wood, plastic or paper</li> <li>*Communicates that the physical properties of objects and materials can change, 3.g., when solid ice becomes liquid</li> <li>*Displays awareness of natural forces that affect objects and materials. e.g., wind and gravity</li> <li>*Explores and describes ways that objects can be moved in space, e.g., pushing, pulling, rising, or sinking</li> </ul>
<b>Earth's Environment</b>	<ul style="list-style-type: none"> <li>*Demonstrates understanding that there are different kinds of weather and that weather changes</li> <li>*Describes and measures weather</li> <li>*Communicates awareness that the environment changes, e.g., rocks, sand, dirt, and each material has properties that can be described</li> <li>*Shows awareness that different objects can be seen in the sky</li> <li>*Demonstrates understanding that people can affect the environment in positive and negative ways</li> </ul>

## Scope and Sequence for 4 year olds

Objective	Throughout the Year
<b>Scientific Inquiry Skills</b>	<ul style="list-style-type: none"> <li>*Observes and explores things in the environment</li> <li>*Reacts to changes</li> <li>*Manipulates objects to understand their properties</li> <li>*Connects new observations to what he or she already knows</li> <li>*Identifies problems, makes predictions, thinks of ways to solve problems, and tries possible solutions</li> <li>*Organizes information</li> <li>*Makes comparisons and classifies</li> <li>*Communicates with others about discoveries</li> <li>*Represents his or her thinking through drawing, dramatizing, graphing, or making models</li> </ul>
<b>Living Things</b>	<ul style="list-style-type: none"> <li>*Shows a growing ability to classify living and nonliving things</li> <li>*Communicates about the characteristics of living things</li> <li>*Demonstrates understanding that living things grow, change and reproduce</li> <li>*Shows awareness of life in different environments or habitats</li> <li>*Groups or categorizes living things, e.g. appearance, behavior, plant, or animal</li> <li>*Demonstrates awareness that living through a growth cycle</li> </ul>
<b>Physical Properties of Objects and Materials</b>	<ul style="list-style-type: none"> <li>*Examines, describes, and measures the observable features of objects</li> <li>*Demonstrates understanding that objects are made from one or more materials, e.g. metal, wood, plastic, or paper</li> <li>*Communicates that the physical properties of objects and materials can change, e.g., when solid ice becomes a liquid</li> <li>*Displays awareness of natural forces that affect objects and materials, e.g., wind and gravity</li> <li>*Explores and describes ways that objects can be moved in space, e.g., pushing, pulling, rising, or sinking</li> </ul>
<b>Earth's Environment</b>	<ul style="list-style-type: none"> <li>*Demonstrates understanding that there are different kinds of weather and that weather changes</li> <li>*Describes and measures weather</li> <li>*Communicates awareness that the environment changes, e.g., season to season, sometimes slowly and sometimes suddenly</li> <li>*Communicates that Earth's surface is made of different materials e.g., rocks, sand, dirt, and water, and each material has properties that can be described</li> <li>*Shows awareness that different objects can be seen in the sky</li> <li>*Demonstrates understanding that people can affect the environment in positive and negative ways</li> </ul>