

**Southington Public Schools  
Curriculum Map**

**Subject:** Science

**Grade:** 2

UNIT TITLE	#1 Soil Physical Properties	#2 Plants	#3 Nutrition	#4 Weather and Air
<b>CONTENT</b>	Earth Materials: <ul style="list-style-type: none"> <li>• Soil description</li> <li>• Soil properties</li> <li>• Soil supports plant growth</li> </ul>	Plants: <ul style="list-style-type: none"> <li>• Needs for survival</li> <li>• Structures</li> <li>• Life Cycle</li> </ul>	Nutrition: <ul style="list-style-type: none"> <li>• Food comes from plants and animals</li> <li>• Different food groups</li> <li>• Nutritional Value</li> <li>• Cultural Influenced</li> </ul>	Weather & Air: <ul style="list-style-type: none"> <li>• Properties of Gas (air)</li> <li>• Air has force</li> <li>• Weather conditions</li> <li>• Measure weather</li> </ul>
<b>STATE STANDARDS</b>	2.3 –Earth materials have varied physical properties which make them useful in different ways. <ul style="list-style-type: none"> <li>➤ Soils can be described by their color, texture and capacity to retain water.</li> <li>➤ Soils support the growth of many kinds of plants, including those in our food supply.</li> </ul> A 21. Sort different soils by properties, such as particle size, color and composition. A 22. Relate the properties of different soils to their capacity to retain water and support the growth of certain plants. A INQ. 1 Make observations and ask questions about organisms and the environment. A INQ. 2 Uses senses to collect data. A INQ. 3 Make predictions based on observed patterns. A INQ. 4 Read, write listen and speak about observation of the natural world. A INQ. 5 Seek information in books, magazines and pictures.	1.2 – Living things have different structures and behaviors that allow them to meet their basic needs.  2.2 – Plants change their form as part of their life cycles.  A13 – Describe the different structures plants have for obtaining water and sunlight. A19 – Describe the life cycles of flowering plants as they grow from seeds, proceed through maturation and produce new seeds. A INQ.1 Make observations and ask questions about objects, organisms and the environment. A INQ.2 Use senses and simple measuring tools to collect data. A INQ.3 Make predictions based on observed patterns. A INQ.4 Read, write, listen and speak about observations of the natural world. A INQ.5 Seek information in books, magazines, and pictures. A INQ.6 Present information in words and drawings.	2.4 –Human beings, like all other living things, have special nutritional needs for survival. <ul style="list-style-type: none"> <li>➤ The essential components of balanced nutrition can be obtained from plant and animal sources.</li> <li>➤ People eat different foods in order to satisfy nutritional needs for carbohydrates, proteins and fats.</li> </ul> A 23. Identify the sources of common foods and classify them by their basic food groups. A 24. Describe how people in different cultures use different food sources to meet their nutritional needs. A INQ. 1 Make observations and ask questions about organisms and the environment. A INQ. 2 Uses senses to collect data. A INQ. 3 Make predictions based on observed patterns. A INQ. 4 Read, write listen and speak about observation of the natural world.	2.1. Materials can be classified as solid, liquid or gas based on their observable properties. <ul style="list-style-type: none"> <li>➤ Weather conditions vary daily and seasonably</li> </ul> A. 18 Describe differences in solids, liquids and gases. A.10 Describe how the motion of objects can be changed by pushing and pulling. A. 7 Describe and record daily weather conditions A INQ. 1 Make observations and ask questions about organisms and the environment. A INQ. 2 Uses senses to collect data. A INQ. 3 Make predictions based on observed patterns. A INQ. 4 Read, write listen and speak about observation of the natural world. A INQ. 5 Seek information in books, magazines and pictures. A INQ. 6 Present information in words and drawings.

<p><b>STATE STANDARDS</b></p>	<p>A INQ. 6 Present information in words and drawings.  A INQ. 7 Use standard tools to measure and describe physical properties such as weight, length and temperature.  A INQ. 9 Count, order and sort objects by their properties.  A INQ. 10 Represent information in bar graphs.</p>	<p>A INQ. 7 Use standard tools to measure and describe physical properties such as weight, length and temperature.  A INQ. 8 Use nonstandard measures to estimate and compare the sizes of objects.  A INQ. 9 Count, order and sort objects by their properties.  A INQ. 10 Represent information in bar graphs.</p>	<p>A INQ. 5 Seek information in books, magazines and pictures.  A INQ. 6 Present information in words and drawings.  A INQ. 7 Use standard tools to measure and describe physical properties such as weight, length and temperature.  A INQ. 8 Use nonstandard measures to estimate and compare the sizes of objects.  A INQ. 9 Count, order and sort objects by their properties.  A INQ. 10 Represent information in bar graphs.</p>	<p>A INQ. 7 Use standard tools to measure and describe physical properties such as weight, length and temperature.  A INQ. 10 Represent information in bar graphs.</p>
<p><b>ASSESSMENT</b></p>	<p><b><u>PERFORMANCE TASK</u></b>  You are a geologist and you must determine what type of soil is in an unknown sample. Investigate all the ingredients in this soil sample using tools and methods that are a part of your job. Describe all of the ingredients in your soil including particle size, color and composition. Test your soil to determine how much water it will retain. Suggest a type of plant that might grow well in this soil.</p> <p>Prepare a final report of your results to share with the class.</p> <p>Assist with word bank or use of tools as needed.</p>	<p><b><u>PERFORMANCE TASK</u></b>  Your mom is getting ready to plant a vegetable garden this spring in your backyard. You love beans and want to plant beans in a part of the garden yourself. You need to convince her you can take care of them before she will let you do this. Write a story about how you will prepare the soil, plant your seeds, and take care of them until you are able to pick mature beans. You will need to include how the environment will affect your plants, and what part you will have in making sure your plants survive. You must also include a sequence of pictures to show you know the life cycle process your plant will go through and label all the plant parts. The amount of details you include and how accurate they are will be the deciding factor of whether your mom will let you become a gardener of your own.</p>	<p><b><u>PERFORMANCE TASK</u></b>  You are the new chef in a local restaurant. Your job is to design a menu for healthy food choices for three meals: breakfast, lunch and dinner. You must list the food choices and which food group they represent for each meal. The foods for each meal must represent choices based on recommendations of My Pyramid for Kids for the amount needed each day.</p> <p>Please remember that other students will be choosing these meals so include healthy foods that children should eat.</p>	<p><b><u>PERFORMANCE TASK</u></b>  You are a meteorologist and you will describe the weather conditions that occurred over 24 hours. Describe what instruments you used, and include the temperature, the type of clouds, the amount of precipitation, the appearance of the moon. You can use weather symbols to describe these weather conditions. You can also tell us what you saw the air move with the type of wind condition that occurs on this day.</p>

**OTHER EVIDENCE**

- Teacher interviews
- Teacher observations
- Venn Diagrams
- Recording Sheets about soils, rocks
- Drawings of soil components
- Sorting pictures/diagrams
- Geologist Journal
- Graphs of time for water to soak into soil
- Writing about soil components

**OTHER EVIDENCE**

- Drawings: parts and functions of a plant
- Sequence life cycle of a plant picture
- Journal writings to respond to different prompts
- Written observations of grown plants from seedlings, cuttings and bulbs
- Graphs about growth of plants,
- Venn diagrams
- teacher observations
- oral interviews
- homework assignments: student response sheets
- Plant Growth Log

**OTHER EVIDENCE**

- Teacher interview
- Observations of group work
- Food Journal / Logs
- Graphs
- Pictorial Representations of foods in correct food groups
- My Pyramid chart labeled correctly
- Data Charts
- Color Charts with food examples that match.
- Fruit and Vegetable Diary
- Compare food eaten during the week and on the weekend

**OTHER EVIDENCE**

- Teacher observations
- Bar graphs with math problems
- Air & Weather Journal
- Weather Record: Data with symbols and dates
- Thermometer pictures
- Weather graphs
- Precipitation pictures
- Moon observation calendar
- Night Sky Log

**SKILLS**

- Explore different types of soil and their ability to hold water.
- Determine which soil provides the best medium for plant growth.
- Compare the similarities and differences of soils.
- Demonstrate how water moves through sand/clay.
- Compare wet and dry soil.
- Sort rocks found in soils.
- Separate sand and silt using water.
- Investigate properties of sand, silt, clay particles, gravel and pebbles.
- Order rocks from smallest to largest sizes.
- Identify what ingredients are in soils.

- Observe and identify all of the plant parts.
- Describe how the environment affects the life and life cycle of plants.
- Sequence the steps in the life cycle of plants.
- Grow new plants from seeds or plant cuttings.
- Drawings of plant growth after 2 weeks.
- Describe the functions of each plant part.
- Investigate the effects of heat, light, and water on plant growth.
- Sort seeds by their attributes.
- Compare wet and dry seeds.
- Graph the progress of various plant growth.
- Describe how the roots of plants develop.

- Classify foods by their group: grains, vegetables, fruits, milk, meat & beans.
- Describe how much of the foods from each group will be needed for children their age.
- Discuss making healthy food choices.
- Describe why we need to eat more food from some groups than others.
- Classify foods by colors that represent each group.
- Explain why physical activity is important as well as the foods they eat.
- Make healthy choices in the foods they eat.
- Graph the amount of fruit and vegetables they eat.
- Record food eaten in a week in a food diary.

- Explore properties of a common gas – air
- Construct parachutes and observe how they move through the air
- Discover how air occupies space and can be compressed
- Observe that compressed air pushes with a usable pressure
- Explain how air can propel a balloon – rocket system
- Observe and record daily weather
- Monitor and record daily outdoor temperature
- Use weather instruments (thermometer, rain gauge)
- Identify several types of clouds
- Identify natural sources of water

<p><b>SKILLS</b></p>	<ul style="list-style-type: none"> <li>• Separate ingredients in soils.</li> <li>• Describe ingredients in soils.</li> <li>• Explore which soils support different types of plants.</li> <li>• Describe humus found in soils and explain why it is helpful for plants.</li> <li>• Make a sculpture using sand and clay.</li> </ul>	<ul style="list-style-type: none"> <li>• Write descriptions in journals of how the plants grow and develop.</li> <li>• Grow plants from bulbs</li> <li>• Measure the growth of plants and record on calendars</li> </ul>	<ul style="list-style-type: none"> <li>• Identify examples of foods in each group.</li> <li>• Describe the nutrients in each food group.</li> <li>• Match the colors on the “My Pyramid” with the food groups and types of food in each group.</li> <li>• Locate nutritional information on food labels.</li> <li>• Compare food eaten during the week and then on the weekend</li> </ul>	<ul style="list-style-type: none"> <li>• Observe evidence of wind speed and direction</li> <li>• Describe wind strength</li> <li>• Observe the effect of wind direction and speed on kites</li> <li>• Graph weather observations</li> <li>• Identify weather patterns and changes throughout the seasons</li> <li>• Monitor and record the changing appearance of the moon over a month and nightly weather</li> </ul>
----------------------	--	--	---	--