

**Southington Public Schools
Curriculum Map**

Subject: Science

Grade: 1

UNIT TITLE	#1 Animals	#2 Properties of matter	#3 Life Cycle of Living Things	#4 Sun & Shadow	#5 Measurement
CONTENT	<p>Animals:</p> <ul style="list-style-type: none"> Needs: air, food, water, shelter Similarities & Differences in appearance and behaviors Movement 	<p>Matter Properties:</p> <ul style="list-style-type: none"> Classification Physical Properties 	<p>Living Things:</p> <ul style="list-style-type: none"> Life Cycles some undergo Metamorphosis and others basic form stays same 	<p>Sun & Shadow:</p> <ul style="list-style-type: none"> Movement of sun through day and year Length direction of shadow 	<p>Measurement:</p> <ul style="list-style-type: none"> Tools describe and compare Estimate / measure Non standard and standard measures
STATE STANDARDS	<p>1.2 – Living things have different structures and behaviors that allow them to meet their basic needs.</p> <p>A.4. Describe the similarities and differences in the appearance and behaviors of plants, birds, fish, insects and mammals (including humans). A 12 – Describe the different ways that animals obtain air and food. A 14 – Describe the structures that animals, including humans, use to move around. A INQ.1. Make observations and ask questions about objects, organisms and the environment. A INQ. 2 Uses senses to collect data.</p>	<p>2.1 Materials can be solid, liquid, or gas based on their observable properties.</p> <p>A.18 – Describe differences in the physical properties of solids, liquids. 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 observation of the natural world. A INQ. 5 Seek information in books, magazines and pictures.</p>	<p>1.3 Some organisms undergo metamorphosis during their life cycles; other organisms grow and change but their basic form stays essentially the same.</p> <p>A 15. Describe the changes in organisms as they undergo metamorphosis. 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>	<p>1.1 – The sun appears to move across the sky in the same way every day, but its path changes gradually over the seasons.</p> <ul style="list-style-type: none"> An object’s position can be described by locating it relative to another object or the background. An object’s motion can be described by tracing and measuring its position over time. <p>A 10 Describe the changes in the length and direction of shadows during the day. A 11. Describe the apparent movement of the sun across the sky and the changes in the length and direction of shadows during the day.</p>	<p>1.4 The properties of materials and organisms can be described more accurately through the use of standard measuring units.</p> <ul style="list-style-type: none"> Various tools can be used to measure, describe and compare different objects and organisms <p>A17. Estimate, measure and compare the sizes and weights of different objects and organisms using standard and nonstandard measuring tools. 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.</p>

<p>STATE STANDARDS</p>	<p>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. 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 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. 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.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. 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.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. A. INQ.7. Use standard tools to measure and describe physical properties such as weight, length and temperature. A. INQ.8. Use non-standard measures to estimate and compare the size of objects. A. INQ.9. Count, order and sort objects by their properties. A INQ. 10. Represent information in bar graphs.</p>
<p>ASSESSMENT</p>	<p><u>PERFORMANCE TASK</u> Students will be the author and illustrator of an animal book. It will be a five page book. They will have to choose one animal from each classification of animals.</p>	<p><u>PERFORMANCE TASK</u> You are a scientist and your job is to sort and classify various unfamiliar objects as either solids, liquids or have some properties of both.</p>	<p><u>PERFORMANCE TASK</u> FOSS Insects: Describe the changes in organisms as they undergo metamorphosis. Apply these changes to unknown but similar organisms.</p>	<p><u>PERFORMANCE TASK</u> Materials: picture using a three frame sequence with a person in each frame; one frame for the morning, noon and afternoon.</p>	<p><u>PERFORMANCE TASK</u> Growing With Mathematics: Topic 3: Performance Task A Checkup A & B</p>

<p>ASSESSMENT</p>	<p>The illustration needs to show the animals in their correct habitats. Each page will have cloze sentences to complete describing what the animal eats, how it moves and where it lives.</p> <p><u>OTHER EVIDENCE</u></p> <ul style="list-style-type: none"> • teacher observation • journal writing • Venn diagram • rubric • matching pictures with animals names and habitats • diorama that shows an animal in it's correct habitat 	<p>Make three groups and write the names of the materials that belong in each group and tell why. You will have 10 substances to determine the state of matter. You will share your results with other scientists</p> <p><u>OTHER EVIDENCE</u></p> <ul style="list-style-type: none"> • Student response sheet • Science journals • Class discussions • Teacher observations • Individual conferences • Correct ID of Solids and Liquids and Gases • Students will use an equal arm balance scale to compare the weight of various solids – more or less than. • Venn Diagrams to compare similarities and differences of types of matter • Charts of solid and liquid properties • Identify if substances are solids or liquids 	<p>Sequence the pictures of the Life Cycle of the Triangle Bug and include the name of the stage of development with each picture.</p> <p>Sequence the pictures of the Life Cycle of the Square Moth and include the name of the stage of development with each picture.</p> <p>Also describe what two different animals need to survive as they grow and develop into the adult stage.</p> <p><u>OTHER EVIDENCE</u></p> <ul style="list-style-type: none"> • Teacher observation • Student Interviews • Journal Writing • Draw and name the stages in the life cycle various insects and animals. • Sequence pictures or models of the stages in the correct order of development for several living things. • Venn diagrams comparing the characteristics of a butterfly or frog and another animal and also compare 2 different insects. • Observation Journal of the life cycle changes of various animals. 	<p>Students will draw the shadow and label each with the appropriate time of day (morning, noon, afternoon.)</p> <p>Instructions: Draw the location of the sun and the shadow in each picture.</p> <p><u>OTHER EVIDENCE</u></p> <ul style="list-style-type: none"> • Teacher observation • Journal writing • Activity sheets • Student drawings 	<p>Topic 7: Performance Task B</p> <p>Topic 9: Performance Task B Checkup A & B</p> <p><u>OTHER EVIDENCE</u></p> <ul style="list-style-type: none"> • Learning Station activities • Teacher observation • Checklist • Estimate and compare objects in nature • Measure objects using non-standard and standard units • Student worksheets • Journal entries
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SKILLS					
	<ul style="list-style-type: none"> • Name various common animals. • Classify animals into 5 basic animal kingdoms. • Describe animal habitats (ocean, desert, forests, ponds, meadows, rainforest). • Describe animal features that help protect them from predators and other environmental conditions. • Classify animals by their movement. • Compare and contrast animal characteristics. • Describe the body structures that animals have. • Infer what type of habitat is needed for particular animals. 	<ul style="list-style-type: none"> • Explore materials that are solids and liquids to determine how they are different. • Describe matter with different properties into 3 types – solid, liquid. • Classify objects by their physical properties. • Sort matter by its properties. • Compare solids and liquids. • Compare and contrast different solids of various sizes. • Investigate and record the level nature of liquid as it flows from one stable position to another. • Investigate the appearance and behavior of liquids in containers. • Develop definitions of solids and liquids bases on their observations and comparisons. • Combine and separate solid materials of different particle sizes. • Compare the behavior of solids and liquids in similar settings. • Observe what happens when solids and water mix • 	<ul style="list-style-type: none"> • Name the stages in the development of insects, frog and mammals. • Sequence pictures or models of the stages in the life cycle of the frog and insects. • Draw/construct models of an insect with all its parts. • Draw/construct a model of a tadpole/frog with all its parts. • Observe and describe the life cycle of insects, and frog with live specimens. • Compare and contrast the life cycles of different insects to other animals including humans. • Use data to develop a time line of the life cycle changes of various living things. • Make reasonable predictions of what will happen next with the development of living things in the cycle of life. • Observe complete metamorphosis of insects. • Compare the structures of an insect larva with the insect adult. • Compare larval segments, legs and other structures of insects to the butterfly. • Describe the habitat of various insects and animals which includes what they need to live. 	<ul style="list-style-type: none"> • Make shadows using objects. • Match shadows with their objects. • Describe what's needed to produce a shadow. • Create shadow drawings. • Identify which objects make shadows and which do not. • Show how a shadow changes due to the movement of the sun or a light source. 	<ul style="list-style-type: none"> • Estimate and compare objects using non-standard units to determine length and weight. • Estimate and measure the length of objects using standard units (inches and centimeters). • Compare measurements of non-standard and standard units. • Use a ruler, a balance scale with weights and a thermometer to measure and describe the data.

SKILLS		<ul style="list-style-type: none">• Observe what happens when liquids and water mix• Organize observations of mixtures• Investigate substances that have properties of both solids and liquids.			
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