

Grade 6

Activity: **A Drop in the Bucket**

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Science and Technology

How do science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.4 Water moving across and through earth materials carries with it the products of human activities. >Most precipitation that falls on Connecticut eventually reaches Long Island Sound.</p>	<ol style="list-style-type: none"> 1. Calculate the percentage of fresh water available for human use. 2. Explain why water is a limited resource. 	<p>C10. Explain the role of septic and sewage systems on the quality of surface and ground water.</p> <p>C11. Explain how human activity may impact water resources in Connecticut, such as ponds, rivers and the Long Island Sound ecosystem.</p>

Activity: **A Grave Mistake**

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Science and Technology in Society

How do science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.4 Water moving across and through earth materials carries with it the products of human activities. > Most precipitation that falls on Connecticut eventually reaches Long Island Sound.</p>	<ol style="list-style-type: none"> 1. Analyze data to trace the flow of contaminants in ground water. 2. Conclude that past solutions, developed with the best intentions, may create contemporary problems. 	<p>C10. Explain the role of septic and sewage systems on the quality of surface and ground water.</p> <p>C11. Explain how human activity may impact water resource in Connecticut, such as ponds, rivers and the Long Island Sound ecosystem.</p>

Activity: **Adventures in Density**

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Properties of Matter

How does the structure of matter affect the properties and uses of materials?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.1 Materials can be classified as pure substances or mixtures, depending on their chemical and physical properties. >Mixtures are made of combinations of elements and/or compounds, and they can be separated by using a variety of physical means.</p>	<ol style="list-style-type: none"> 1. Demonstrate how heat and salinity affect the density of water. 2. Relate the compactness of water molecules to the density of water in different states. 3. Recognize that concepts of density can be found in literature and daily life. 	<p>C2. Describe how the properties of single compounds, such as water and table salt, are different from the properties of the elements of which they are made.</p> <p>C3. Explain how mixtures can be separated by using the properties of the substances from which they are made, such as particle size, density, solubility and boiling point.</p>

Activity: **Adventures in Density**

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Energy in the Earth's Systems

How do external and internal sources of energy affect the Earth's systems?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.3 Variations in the amount of the sun's energy hitting the Earth's surface affect daily and seasonal weather patterns. >Local and regional weather are affected by the amount of solar energy these areas</p>	<ol style="list-style-type: none"> 1. Demonstrate how heat and salinity affect the density of water. 2. Relate the compactness of water molecules to the density of water in different states. 3. Recognize that concepts of density can be found in literature and daily life. 	<p>C7. Describe the effect of heating on the movement of molecules in solids, liquids and gases.</p>

receive and by their proximity to a large body of water.		
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Activity: **A-Maze-ing Water**

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Science and Technology in Society
How do science and technology affect the quality of our lives?

Content Standards (focus of standard)	Activity Objectives (from Project WET activity)	CMT Correlation/Expected Performances
6.4 Water moving across and through earth materials carries with it the products of human activities. >Most precipitation that falls on Connecticut eventually reaches Long Island Sound.	<ol style="list-style-type: none"> 1. Describe urban forms of pollution. 2. Provide reasons why people should monitor what they put on their lawns or in streets. 3. Identify ways to treat urban runoff. 	<p>C10. Explain the role of septic and sewage systems on the quality of surface and ground water.</p> <p>C11. Explain how human activity may impact water resources in Connecticut, such as ponds, rivers and the Long Island Sound ecosystem.</p>

Activity: **Branching Out**

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Energy in the Earth's Systems
How do external and internal sources of energy affect the Earth's systems?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
6.3 Variations in the amount of the sun's energy hitting the Earth's surface affect daily and seasonal weather patterns.	<ol style="list-style-type: none"> 1. Predict where water will flow in watersheds. 2. Describe drainage patterns in watersheds. 	<p>C7. Describe the effect of heating on the movement of molecules in solids, liquids and gases.</p> <p>C8. Explain how local</p>

<p>>Local and regional weather are affected by the amount of solar energy these areas receive and by their proximity to a large body of water.</p>		<p>weather conditions are related to the temperature, pressure and water content of the atmosphere and the proximity to a large body of water.</p>
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Activity: **Common Water**

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Science and Technology in Society
 How do Science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.4 Water moving across and through earth materials carries with it the products of human activities. >Most precipitation that falls on Connecticut eventually reaches Long Island Sound.</p>	<ol style="list-style-type: none"> 1. Illustrate how multiple users of water resource can affect water quality and quantity. 2. Examine the complexities of providing water for all water users. 	<p>C10. Explain the role of septic and sewage systems on the quality of surface and ground water.</p> <p>C11. Explain how human activity may impact water resources in Connecticut, such as ponds, rivers and the Long Island Sound ecosystem.</p>

Activity: **Dilemma Derby**

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Science and Technology in Society
 How do science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances

<p>6.4 Water moving across and through earth materials carries with it the products of human activities. > Most precipitation that falls on Connecticut eventually reaches Long Island Sound.</p>	<ol style="list-style-type: none"> 1. Outline reasons why managing water resources can create dilemmas. 2. Identify, analyze, and select actions related to a water resource dilemma. 	<p>C10. Explain the role of septic and sewage systems on the quality of surface and ground water.</p> <p>C11. Explain how human activity may impact water resources in Connecticut, such as ponds, rivers and the Long Island Sound ecosystem.</p>
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Activity: **Every Drop Counts**
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Science and Technology
 How do science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.4 Water moving across and through earth materials carries with it the products of human activities. >Most precipitation that falls on Connecticut eventually reaches Long Island Sound</p>	<ol style="list-style-type: none"> 1. Determine how water conservation practices save water. 2. Identify water conservation habits they can change or adopt. 3. Recognize that water conservation is important. 	<p>C10. Explain the role of septic and sewage systems on the quality of surface and ground water.</p> <p>C11. Explain how human activity may impact water resource in Connecticut, such as ponds, rivers and the Long Island Sound ecosystem.</p>

Activity: **Get the Ground Water Picture**
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Energy in the Earth's Systems
 How do external and internal sources of energy affect the Earth's systems?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.3 Variations in the amount of the sun’s energy hitting the Earth’s surface affect daily and seasonal weather patterns. >Local and regional weather are affected by the amount of solar energy these areas receive and by their proximity to a large body of water.</p>	<ol style="list-style-type: none"> 1. Identify the parts of a ground water system. 2. Compare movement of water through diverse substrates. 3. Relate different types of land uses to potential ground water contamination. 	<p>C7. Describe the effect of heating on the movement of molecules in solids, liquids and gases.</p>

Activity: **Get the Ground Water Picture**

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Science and Technology in Society
 How do science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.4 Water moving across and through earth materials carries with it the products of human activities. >Most precipitation that falls on Connecticut eventually reaches Long Island Sound.</p>	<ol style="list-style-type: none"> 1. Identify the parts of a ground water system. 2. Compare movement of water through diverse substrates. 3. Relate different types of land uses to potential ground water contamination. 	<p>C10. Explain the role of septic and sewage systems on the quality of surface and ground water.</p> <p>C11. Explain how human activities may impact water resources in Connecticut, such as ponds, rivers and the Long Island Sound ecosystem.</p>

Activity: **H₂Olympics**

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Properties of Matter

How does the structure of matter affect the properties and uses of materials?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.1 Materials can be classified as pure substances or mixtures, depending on their chemical and physical properties. >Mixtures are made of combinations of elements and/or compounds, and they can be separated by using a variety of physical means.</p>	<ol style="list-style-type: none"> 1. Demonstrate adhesive and cohesive properties of water. 2. Relate adhesion and cohesion to daily activities. 	<p>C1. Describe the properties of common elements, such as oxygen, hydrogen, carbon, iron and aluminum.</p> <p>C2. Describe how the properties of simple compounds, such as water and table salt, are different from the properties of the elements of which they are made.</p>

Activity: **H₂Olympics**

Page: 30

Energy in the Earth's Systems

How do external and internal sources of energy affect the Earth's systems?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.3 Variations in the amount of the sun's energy hitting the Earth's surface affect daily and seasonal weather patterns. > Local and regional weather are affected by the amount of solar energy these areas receive and by their proximity to a large body of water.</p>	<ol style="list-style-type: none"> 1. Demonstrate adhesive and cohesive properties of water. 2. Relate adhesion and cohesion to daily activities. 	<p>C7. Describe the effect of heating on the movement of molecules in solids, liquids and gases.</p>

Activity: **Hangin' Together**

Page: 35

Properties of Matter

How does the structure of matter affect the properties and uses of materials?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.1 Materials can be classified as pure substances or mixtures, depending on their chemical and physical properties. >Mixtures are made of combinations of elements and/or compounds, and they can be separated by using a variety of physical means.</p>	<ol style="list-style-type: none"> 1. Illustrate the structure and intermolecular forces of the water molecule in relation to hydrogen bonding. 2. Explain the role of hydrogen bonding and its relationship with some of the unique characteristics of water. 3. Deduce how these unique molecular properties of water are critical to life on Earth. 	<p>C1. Describe the properties of common elements, such as oxygen, hydrogen, carbon, iron and aluminum.</p> <p>C2. Describe how the properties of simple compounds, such as water and table salt, are different from the properties of the elements of which they are made.</p>

Activity: **Hangin' Together**

Page: 35

Energy in the Earth's Systems

How do external and internal sources of energy affect the Earth's systems?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.3 Variations in the amount of the sun's energy hitting the Earth's surface affect daily and seasonal weather patterns. >Local and regional weather are affected by the amount of solar energy these areas receive and by their proximity to a large body of water.</p>	<ol style="list-style-type: none"> 1. Illustrate the structure and intermolecular forces of the water molecule in relation to hydrogen bonding. 2. Explain the role of hydrogen bonding and its relationship with some of the unique characteristics of water. 3. Deduce how these unique molecular properties of water are critical to life on Earth. 	<p>C7. Describe the effect of heating on the movement of molecules in solids, liquids and gases.</p> <p>C8. Explain how local weather conditions are related to the temperature, pressure and water content of the atmosphere and the proximity of a large body of water.</p>

Activity: **Humpty Dumpty**

Matter and Energy in Ecosystems
 How do matter and energy flow through ecosystems?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.2 An ecosystem is composed of all the population that are living in a certain space and the physical factors with which they interact. > Populations in ecosystems are affected by biotic factors, such as other populations, and abiotic factors, such as soil and water supply.</p>	<ol style="list-style-type: none"> 1. Describe the challenges of restoring an altered natural landscape. 2. Develop a restoration plan for a local site. 	<p>C4. Describe how abiotic factors, such as temperature, water and sunlight, affect the ability of plants to create their own food through photosynthesis.</p>

Activity: **Humpty Dumpty**
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Science and Technology in Society
 How do science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.4 Water moving across and through earth materials carries with it the products of human activities. > Most precipitation that falls on Connecticut eventually reaches Long Island Sound.</p>	<ol style="list-style-type: none"> 1. Describe the challenges of restoring an altered natural landscape. 2. Develop a restoration plan for a local site. 	<p>C11. Explain how human activity may impact water resources in Connecticut, such as ponds, rivers and the Long Island Sound ecosystem.</p>

Activity: **Imagine!**

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Energy in the Earth's Systems

How do external and internal sources of energy affect the Earth's systems?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.3 Variations in the amount of the sun's energy hitting the Earth's surface affect daily and seasonal weather patterns. >Local and regional weather are affected by the amount of solar energy these areas receive and by their proximity to a large body of water.</p>	<ol style="list-style-type: none"> 1. Identify changes in states of water that enable water to move through the water cycle. 2. Describe the water cycle. 	<p>C7. Describe the effect of heating on the movement of molecules in solids, liquids and gases.</p>

Activity: **Is there Water on Zork?**

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Properties of Matter

How does the structure of matter affect the properties and uses of materials?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.1 Materials can be classified as pure substances or mixtures, depending on their chemical and physical properties. >Mixtures are made of</p>	<ol style="list-style-type: none"> 1. Describe the qualities that distinguish water from other clear liquids. 2. Design an investigation to test characteristics of water. 3. Analyze the efficiency and effectiveness of the 	<p>C1. Describe the properties of common elements, such as oxygen, hydrogen, carbon, iron and aluminum.</p> <p>C2. Describe how the</p>

<p>combinations of elements and/or compounds, and they can be separated by using a variety of physical means. >Pure substances can be either elements or compounds, and they can not be broken down by physical means.</p>	<p>investigation.</p>	<p>properties of simple compounds, such as water and table salt, are different from the properties of the elements of which they were made.</p> <p>C3. Explain how mixtures can be separated by using the properties of the substances from which they were made, such as particle size, density, solubility and boiling point.</p>
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Activity: **Is there Water on Zork?**

Page: 43

Energy in the Earth's systems

How do external and internal sources of energy affect the Earth's systems?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.3 Variations in the amount of the sun's energy hitting the Earth's surface affect daily and seasonal</p>	<ol style="list-style-type: none"> 1. Describe the qualities that distinguish water from other clear liquids. 2. Design an investigation to test characteristics of water. 	<p>C7. Describe the effect of heating on the movement of molecules in solids, liquids and gases.</p>

<p>weather patterns. >Local and regional weather are affected by the amount of solar energy these areas receive and by their proximity to a large body of water.</p>	<p>3. Analyze the efficiency and effectiveness of the investigation.</p>	
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Activity: **Let's Even Things Out**

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Matter and Energy in Ecosystems
 How do matter and energy flow through ecosystems?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.2 An ecosystem is composed of all the populations that are living in a certain space and the physical factors with which they interact. >Populations in ecosystems are affected by biotic factors, such as other populations, and abiotic factors, such as soil and water supply.</p>	<p>1. Describe and demonstrate the processes of osmosis and diffusion.</p>	<p>C4. Describe how abiotic factors, such as temperature, water and sunlight, affect the ability of plants to create their own food through photosynthesis.</p>

Activity: **Life In the Fast Lane**

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Matter and Energy in Ecosystems
 How do matter and energy flow through ecosystems?

Content Standards (focus of standard)	Activity Objectives (from Project WET activity)	CMT Correlation/Expected Performances
<p>6.2 An ecosystem is composed of all the populations that are living in a certain space and the physical factors with which they interact. >Populations in ecosystems are affected by biotic factors, such as other populations, and abiotic factors, such as soil and water supply. >Populations in ecosystems can be categorized as producers, consumers and decomposers of organic matter.</p>	<ol style="list-style-type: none"> 1. Describe physical and biological components of wetlands. 2. Recognize the importance of temporary wetlands to larger ecosystems. 3. Explain how organisms in temporary wetlands race against time to obtain water, shelter, food and a mate. 	<p>C4. Describe how abiotic factors, such as temperature, water and sunlight, affect the ability of plants to create their own food through photosynthesis.</p> <p>C5. Explain how populations are affected by predator-prey relationships.</p> <p>C6 Describe common food webs in different Connecticut ecosystems.</p>

Activity: **Macroinvertebrate Mayhem**

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Matter and Energy in Ecosystems
 How do matter and energy flow through ecosystems?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
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<p>6.2 An ecosystem is composed of all the populations that are living in a certain space and the physical factors with which they interact. >Populations in ecosystems are affected by biotic factors, such as other populations, and abiotic factors, such as soil and water supply.</p>	<ol style="list-style-type: none"> 1. Illustrate how tolerance to water quality conditions varies among macroinvertebrate organisms. 2. Explain how population diversity provides insight into the health of an ecosystem. 	<p>C4. Describe how abiotic factors, such as temperature, water, and sunlight, affect the ability of plants to create their own food through photosynthesis.</p>
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Activity: **Macroinvertebrate Mayhem**

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Science and Technology in Society
 How do science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.4 Water moving across and through earth materials carries with it the products of human activities. >Most precipitation that falls on Connecticut eventually reaches Long Island Sound.</p>	<ol style="list-style-type: none"> 1. Illustrate how tolerance to water quality conditions varies among macroinvertebrate organisms. 2. Explain how population diversity provides insight into the health of an ecosystem. 	<p>C10. Explain the role of septic and sewage systems on the quality of surface and ground water.</p> <p>C11. Explain how human activity may impact water resources in Connecticut, such as ponds, rivers and the Long Island Sound ecosystem.</p>

Activity: **Molecules in Motion**

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Properties of Matter
 How does the structure of matter affect the properties and uses of materials?

Content Standards	Activity Objectives	CMT
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		Correlation/Expected Performances
<p>6.1 Materials can be classified as pure substances or mixtures, depending on their chemical and physical properties. >Pure substances can be either elements or compounds, and they cannot be broken down by physical means.</p>	<p>1. Model the effects of heat energy on the state of water</p>	<p>C3. Explain how mixtures can be separated by using the properties of the substances from which they are made, such as particle size, density, solubility and boiling point.</p>

Activity: **Molecules in Motion**
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Energy in the Earth's Systems
 How do external and internal sources of energy affect the Earth's systems?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.3 Variations in the amount of the sun's energy hitting the Earth's surface affect daily and seasonal weather patterns. >Local and regional weather are affected by the amount of solar energy these areas receive and by their proximity to a large body of water.</p>	<p>1. Model the effects of heat energy on the state of water</p>	<p>C7. Describe the effect of heating on the movement of molecules in solids, liquids and gases.</p>

Activity: **No Bellyachers**
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Science and Technology in Society
 How do science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.4 Water moving across and through earth materials carries with it the products of human activities. >Most precipitation that falls on Connecticut eventually reaches Long Island Sound.</p>	<ol style="list-style-type: none"> 1. Recognize factors that contribute to avoiding a cold or influenza. 2. Describe how some infectious diseases are spread by water or water droplets. 3. Identify ways to reduce the chances of becoming infected with a disease. 	<p>C10. Explain the role of septic and sewage systems on the quality of surface and ground water.</p> <p>C11. Explain how human activity may impact water resources in Connecticut, such as ponds, rivers and the Long Island Sound ecosystem.</p>

Activity: **People of the Bog**

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Matter and Energy in Ecosystems
 How do matter and energy flow through ecosystems?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.2 An ecosystem is composed of all the populations that are living in a certain space and the physical factors with which they interact. >Populations in ecosystems are affected by biotic factors, such as other populations, and abiotic factors, such as soil and water supply. >Populations in ecosystems can be categorized as producers, consumers and decomposers of organic matter.</p>	<ol style="list-style-type: none"> 1. Describe characteristics of bog environments. 2. Explain the conditions of bogs that allow for the preservation of artifacts from the past. 3. Compare the rates of decomposition of articles in aerobic and anaerobic environments. 	<p>C4. Describe how abiotic factors, such as temperature, water and sunlight, affect the ability of plants to create their own food through photosynthesis.</p> <p>C5. Explain how populations are affected by predator-prey relationships.</p> <p>C6. Describe common food webs in different Connecticut ecosystems.</p>

Activity: **Perspectives**

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Science and Technology in Society
 How do science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.4 Water moving across and through earth materials carries with it the products of human activities. >Most precipitation that falls on Connecticut eventually reaches Long Island Sound.</p>	<ol style="list-style-type: none"> 1. Recognize that people have differing values regarding water resource management issues. 2. Evaluate strengths and weaknesses of proposed solutions to water resource management issues. 3. Describe purposes of diverse advocacy groups and summarize their similarities and differences. 	<p>C10. Explain the role of septic and sewage systems on the quality of surface and ground water.</p> <p>C11. Explain how human activity may impact water resources in Connecticut, such as ponds, rivers and the Long Island Sound ecosystem.</p>

Activity: **Rainy-Day Hike**
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Science and Technology in Society
 How do science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.4 Water moving across and through earth materials carries with it the products of human activities. >Most precipitation that falls on Connecticut eventually reaches Long Island Sound.</p>	<ol style="list-style-type: none"> 1. Identify the watershed in which their school is located. 2. Explain the role the schoolyard plays in the watershed. 	<p>C10. Explain the role of septic and sewage systems on the quality of surface and ground water.</p> <p>C11. Explain how human activity may impact water resources in Connecticut, such as ponds, rivers and the Long Island Sound ecosystem.</p>

Activity: **Reaching Your Limits**

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Science and Technology in Society

How do science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.4 Water moving across and through earth materials carries with it the products of human activities. Most precipitation that falls on Connecticut eventually reaches Long Island Sound.</p>	<ol style="list-style-type: none"> 1. Describe the relationship between water quality and water treatment. 2. Be aware of the ratio of one to a million. 	<p>C10. Explain the role of septic and sewage systems on the quality of surface and ground water.</p> <p>C11. Explain how human activity may impact water resources in Connecticut, such as ponds, rivers and the Long Island Sound ecosystem.</p>

Activity: **Salt Marsh Players**

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Matter and Energy in Ecosystems

How do matter and energy flow through ecosystems?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.2 An ecosystem is composed of all the population that are living in a certain space and the physical factors with which they interact. >Populations in ecosystems are affected by biotic factors, such as other populations, and abiotic factors, such as soil and water supply. >Populations in ecosystems can be categorized as producers, consumers and decomposers of</p>	<ol style="list-style-type: none"> 1. Demonstrate how various salt marsh plants and animals adapt to environmental conditions 2. Recognize various plants and animals that live in salt marshes 	<p>C4. Describe how abiotic factors such as temperature, water and sunlight, affect the ability of plants to create their own food through photosynthesis.</p> <p>C5. Explain how populations are affected by predator-prey relationships.</p> <p>C6. Describe common food webs in different Connecticut ecosystems.</p>

organic material.		
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Activity: **Salt Marsh Players**

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Science and Technology in Society
 How do science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
6.4 Water moving across and through earth materials carries with it the products of human activities. >Most precipitation that falls on Connecticut eventually reaches Long Island Sound.	1. Demonstrate how various salt marsh plants and animals adapt to environmental conditions 2. Recognize various plants and animals that live in salt marshes	C11. Explain how human activity may impact water resources in Connecticut, such as ponds, rivers and the Long Island Sound ecosystem.

Activity: **Sparkling Water**

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Science and Technology in Society
 How do science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
6.4 Water moving across and through earth materials carries with it the products of human activities. Most precipitation that falls on Connecticut eventually reaches Long	1. Describe the processes for treating wastewater. 2. Compare how water is cleaned in the water cycle to how it is cleaned in contemporary water treatment systems. 3. List nontoxic household	C10. Explain the role of septic and sewage systems on the quality of surface and ground water. C11. Explain how human activity may impact water resources in Connecticut,

Island Sound.	cleaning methods.	such as ponds, rivers and the Long Island Sound ecosystem.
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Activity: **Sum of the Parts**

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Science and Technology in Society
 How do science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.4 Water moving across and through earth materials carries with it the products of human activities. > Most precipitation that falls on Connecticut eventually reaches Long Island Sound.</p>	<ol style="list-style-type: none"> 1. Distinguish between point and non-point source pollution. 2. Recognize that everyone contribute to and is responsible for a river or lake's water quality. 3. Identify Best Management Practices to reduce pollution. 	<p>C10. Explain the role of septic and sewage systems on the quality of surface and ground water.</p> <p>C11. Explain how human activity may impact water resources in Connecticut, such as ponds, rivers and the Long Island Sound ecosystem.</p>

Activity: **Super Bowl Surge**

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Science and Technology
 How do science and technology affect the quality of our lives?

Content Standard	Activity Objectives	CMT Correlation/Expected Performances
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<p>6.4 Water moving across and through earth materials carries with it the products of human activities. >Most precipitation that falls on Connecticut eventually reaches Long Island Sound.</p>	<ol style="list-style-type: none"> 1. Illustrate how demands on some treatment plants cause overflow. 2. Explain problems with sewage overflow. 3. Propose solutions to a water management problem. 4. Recognize how presentation strategies influence public policy. 	<p>C10. Explain the role of septic and sewage systems on the quality of surface and ground water.</p> <p>C11. Explain how human activity may impact water resources in Connecticut, such as ponds, rivers and the Long Island Sound ecosystem.</p>
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Activity: **Super Sleuths**

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Science and Technology in Society

How do science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.4 Water moving across and through earth materials carries with it the products of human activities. >Most precipitation that falls on Connecticut eventually reaches Long Island Sound.</p>	<ol style="list-style-type: none"> 1. Identify the role of water in transmitting diseases. 2. Compare symptoms of several waterborne diseases. 3. Analyze the characteristics of environments that promote the transmission of these diseases around the world. 	<p>C10. Explain the role of septic and sewage systems on the quality of surface and ground water.</p> <p>C11. Explain how human activity may impact water resources in Connecticut, such as ponds, rivers and the Long Island Sound ecosystem. .</p>

Activity: **The Incredible Journey**

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Energy in the Earth's Systems

How do external and internal sources of energy affect the Earth's systems?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
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<p>6.3 Variations in the amount of the sun’s energy hitting the Earth’s surface affect daily and seasonal weather patterns. Local and regional weather are affected by the amount of solar energy these areas receive and by their proximity to a large body of water.</p>	<ol style="list-style-type: none"> 1. Describe the movement of water within the water cycle. 2. Identify the states of water as it moves through the water cycle. 	<p>C7. Describe the effect of heating on the movement of molecules in solids, liquids and gases.</p> <p>C8. Describe how local weather conditions are related to the temperature, pressure and water content of the atmosphere and the proximity to a large body of water.</p>
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Activity: **The Incredible Journey**

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Science and Technology

How do science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.4 Water moving across and through earth materials carries with it the products of human activities. Most precipitation that falls on Connecticut eventually reaches Long Island Sound.</p>	<ol style="list-style-type: none"> 1. Describe the movement of water within the water cycle. 2. Identify the states of water as it moves through the water cycle. 	<p>C11. Explain how human activity may impact water resources in Connecticut, such as ponds, rivers and Long Island Sound ecosystem.</p>

Activity: **The Long Haul**

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Science and Technology in Society

How do science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected
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		Performances
<p>6.4 Water moving across and through earth materials carries with it the products of human activities. >Most precipitation that falls on Connecticut eventually reaches Long Island Sound.</p>	<ol style="list-style-type: none"> 1. Develop an awareness of various volumes of water. 2. Appreciate today’s readily available water supplies. 3. Relate how easy access to water can encourage people to use large amounts of water. 	<p>C10. Explain the role of septic and sewage systems on the quality of surface and ground water.</p> <p>C11. Explain how human activity may impact water resources in Connecticut, such as ponds, rivers and the Long Island Sound ecosystem.</p>

Activity: **The Pucker Effect**

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Science and Technology in Society
 How do science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.4 Water moving across and through earth materials carries with it the products of human activities. >Most precipitation that falls on Connecticut eventually reaches Long Island Sound.</p>	<ol style="list-style-type: none"> 1. Describe how underground point source pollutants move through ground water. 2. Analyze data from test wells they have “drilled” to identify point source pollutants. 	<p>C10. Explain the role of septic and sewage systems on the quality of surface and ground water.</p> <p>C11. Explain how human activity may impact water resources in Connecticut, such as ponds, rivers and the Long Island Sound ecosystem.</p>

Activity: **Thirsty Plants**

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Matter and Energy in Ecosystems
 How do matter and energy flow through ecosystems?

Content Standards	Activity Objectives	CMT Correlation/Expected
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		Performances
<p>6.2 An ecosystem is composed of all the populations that are living in a certain space and the physical factors with which they interact. >Populations in ecosystems are affected by biotic factors, such as other populations, and abiotic factors, such as soil and water supply. >Populations in ecosystems can be categorized as producers, consumers and decomposers of organic material.</p>	<ol style="list-style-type: none"> 1. Explain how plants transport water through transpiration. 2. Describe the importance of plants in the water cycle. 3. Recognize that certain plants are appropriate for xeriscaping. 	<p>C4. Describe how abiotic factors, such as temperature, water and sunlight, affect the ability of plants to create their own food through photosynthesis.</p>

Activity: **Thirsty Plants**

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Energy in the Earth's Systems

How do external and internal sources of energy affect the Earth's systems?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.3 Variations in the amount of the sun's energy hitting the Earth's surface affect daily and seasonal weather patterns. >Local and regional weather are affected by the amount of solar energy these areas receive and by their proximity to a large body of water.</p>	<ol style="list-style-type: none"> 1. Explain how plants transport water through transpiration. 2. Describe the importance of plants in the water cycle. 3. Recognize that certain plants are appropriate for xeriscaping. 	<p>C7. Describe the effect of heating on the movement of molecules in solids, liquids and gases.</p>

Activity: **Water Address**

Matter and Energy in Ecosystems
How do matter and energy flow through ecosystems?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.2 An ecosystem is composed of all the populations that are living in a certain space and the physical factors with which they interact. >Populations in ecosystems are affected by biotic factors, such as other populations, and abiotic factors, such as soils and water supply.</p>	<p>1. Recognize water-related adaptations of some plants and animals.</p>	<p>C5. Explain how populations are affected by predator-prey relationships.</p>

Activity: **Water Models**

Energy in the Earth's systems
How do external and internal sources of energy affect the Earth's systems?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.3 Variations in the amount of the sun's energy hitting the Earth's surface affect daily and seasonal weather patterns. > Local and regional weather are affected by the amount of solar energy these areas receive and by their proximity to a large body of water.</p>	<p>1. Recognize the roles of condensation and evaporation in the water cycle. 2. Relate the water cycle to different climates and ecosystems around the world.</p>	<p>C7. Describe the effect of heating on the movement of molecules in solids, liquids and gases. C8. Explain how local weather conditions are related to the temperature, pressure and water content of the atmosphere and the proximity to a large body of water. C9. Explain how the</p>

		uneven heating of the Earth's surface causes winds.
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Activity: **Water Works**

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Science and Technology in Society
 How do science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.4 Water moving across and through earth materials carries with it the products of human activities. >Most precipitation that falls on Connecticut eventually reaches Long Island Sound.</p>	<ol style="list-style-type: none"> 1. Distinguish between direct and indirect uses of water. 2. Illustrate the interconnectedness of water users in a community. 3. Demonstrate the complexity of resolving water shortages among interdependent community water users. 	<p>C10. Explain the role of septic and sewage systems on the quality of surface and ground water.</p> <p>C11. Explain how human activity may impact water resources in Connecticut, such as ponds, rivers and the Long Island Sound ecosystem.</p>

Activity: **Wet Vacation**

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Matter and Energy in Ecosystems
 How do matter and energy flow through ecosystems?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances

<p>6.2 An ecosystem is composed of all the populations that are living in a certain space and the physical factors with which they interact. >Populations in ecosystems are affected by biotic factors, such as other populations, and abiotic factors, such as soil and water supply. >Populations in ecosystems can be categorized as producers, consumers, and decomposers of organic matter.</p>	<ol style="list-style-type: none"> 1. Identify factors that affect temperature and precipitation patterns. 2. Analyze how weather conditions influence tourism. 	<p>C4. Describe how abiotic factors, such as temperature, water and sunlight, affect the ability of plants to create their own food through photosynthesis.</p>
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Activity: **Wet Vacation**

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Energy in the Earth's Systems

How do external and internal sources of energy affect the Earth's systems?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.3 Variations in the amount of the sun's energy hitting the Earth's surface affect daily and seasonal weather patterns.</p>	<ol style="list-style-type: none"> 1. Identify factors that affect temperature and precipitation patterns. 2. Analyze how weather conditions influence tourism. 	<p>C7. Describe the effect of heating on the movement of molecules in solids, liquids and gases. C8. Explain how local</p>

<p>>Local and regional weather are affected by the amount of solar energy these areas receive and by their proximity to a large body of water.</p>		<p>weather conditions are related to the temperature, pressure and water content of the atmosphere and the proximity to a large body of water.</p> <p>C9. Explain how the uneven heating of the Earth's surface causes winds.</p>
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Activity: **Wetland Soils in Living Color**

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Energy in the Earth's Systems

How do external and internal sources of energy affect the Earth's systems?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.3 Variations in the amount of the sun's energy hitting the Earth's surface affect daily and seasonal weather patterns.</p> <p>>Local and regional weather are affected by the amount of solar energy these areas receive and by their proximity to a large body of water.</p>	<ol style="list-style-type: none"> 1. Classify soils according to color to confirm that an area is a wetland. 2. Describe conditions that create the color characteristics of wetland soils. 	<p>C8. Explain how local weather conditions are related to the temperature, pressure and water content of the atmosphere and the proximity to a large body of water.</p>

Activity: **What's the Solution?**

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Properties of Matter

How does the structure of matter affect the properties and uses of materials?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
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<p>6.1 Materials can be classified as pure substances or mixtures, depending on their chemical and physical properties. >Mixtures are made of combinations of elements and/or compounds, and they can be separated by using a variety of physical means. >Pure substances can be either elements or compounds, and they cannot be broken down by physical means.</p>	<p>1. Discriminate solutions from other mixtures. 2. Demonstrate the water's ability to dissolve solids, liquids and gases.</p>	<p>C1. Describe the properties of common elements, such as oxygen, hydrogen, carbon, iron and aluminum.</p> <p>C2. Describe how the properties of simple compounds, such as water and table salt, are different from the properties of the elements of which they are made.</p> <p>C3. Explain how mixtures can be separated using the properties of the substances from which they are made, such as particle size, density, solubility and boiling point.</p>
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Activity: **Where are the Frogs?**

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Properties of Matter

How does the structure of matter affect the properties and uses of materials?

Content Standards	Activity Objectives	CMT
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		Correlation/Expected Performances
<p>6.1 Materials can be classified as pure substances or mixtures, depending on their chemical and physical properties. >Mixtures are made of combinations of elements and/or compounds, and they can be separated by using a variety of physical means.</p>	<ol style="list-style-type: none"> 1. Illustrate the meaning of pH. 2. Analyze the effects of acidic water on plant and animal life. 3. Describe how acid rain can affect ecosystems. 	<p>C1. Describe the properties of common elements, such as oxygen, hydrogen, carbon, iron and aluminum.</p>

Activity: **Where are the Frogs?**

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Matter and Energy in Ecosystems
 How do matter and energy flow through ecosystems?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.2 An ecosystem is composed of all the populations that are living in a certain space and the physical factors with which they interact. >Populations in ecosystems are affected by biotic factors, such as other populations, and abiotic factors, such as soil and water supply.</p>	<ol style="list-style-type: none"> 1. Illustrate the meaning of pH. 2. Analyze the effects of acidic water on plant and animal life. 3. Describe how acid rain can affect ecosystems. 	<p>C4. Describe how abiotic factors, such as temperature, water and sunlight, affect the ability of plants to create their own food through photosynthesis.</p>

Activity: **Where are the Frogs?**

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Science and Technology in Society
 How do science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.4 Water moving across and through earth materials carries with it the products of human activities. >Most precipitation that falls on Connecticut eventually reaches Long Island Sound.</p>	<ol style="list-style-type: none"> 1. Illustrate the meaning of pH. 2. Analyze the effects of acidic water on plant and animal life. 3. Describe how acid rain can affect ecosystems. 	<p>C11. Explain how human activity may impact water resources in Connecticut, such as ponds, rivers and the Long Island Sound ecosystem.</p>

Activity: **Whose Problem is it?**

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Science and Technology in Society

How do science and technology affect the quality of our lives?

Content Standards	Activity Objectives	CMT Correlation/Expected Performances
<p>6.4 Water moving across and through earth materials carries with it the products of human activities. >Most precipitation that falls on Connecticut eventually reaches Long Island Sound.</p>	<ol style="list-style-type: none"> 1. Analyze how water issues affect individuals as well as world populations, and how these issues can have short- and/or long-term implications. 2. Illustrate the scope and duration of water-related issues. 	<p>C11. Explain how human activity may impact water resources in Connecticut, such as ponds, rivers and the Long Island Sound ecosystem.</p>