

<b>Grade 6</b>	
<b>Core Themes, Content Standards and Expected Performances</b>	
<b>Content Standards</b>	<b>Expected Performances</b>
<p><i>Matter and Energy in Ecosystems – How do matter and energy flow through ecosystems? (BIO)</i></p> <p><b>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.</b></p> <p>Populations in ecosystems are affected by biotic factors, such as other populations, and abiotic factors, such as soil and water supply.</p> <p>Populations in ecosystems can be categorized as producers, consumers and decomposers of organic matter.</p>	<p><b>C 4.</b> Describe how abiotic factors, such as temperature, water and sunlight, affect the ability of plants to create their own food through photosynthesis.</p> <p><b>C 5.</b> Explain how populations are affected by predator-prey relationships.</p> <p><b>C 6.</b> Describe common food webs in different Connecticut ecosystems.</p>
<p><i>Energy in the Earth’s Systems – How do external and internal sources of energy affect the Earth’s systems? (EARTH)</i></p> <p><b>6.3 - Variations in the amount of the sun’s energy hitting the Earth’s surface affect daily and seasonal weather patterns.</b></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><b>C 7.</b> Describe the effect of heating on the movement of molecules in solids, liquids and gases.</p> <p><b>C 8.</b> 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> <p><b>C 9.</b> Explain how the uneven heating of the Earth’s surface causes winds.</p>
<p><i>Science and Technology in Society – How do science and technology affect the quality of our lives? (EARTH)</i></p> <p><b>6.4 - Water moving across and through earth materials carries with it the products of human activities.</b></p> <p>Most precipitation that falls on Connecticut eventually reaches Long Island Sound.</p>	<p><b>C 10.</b> Explain the role of septic and sewage systems on the quality of surface and ground water.</p> <p><b>C 11.</b> Explain how human activity may impact water resources in Connecticut, such as ponds, rivers and the Long Island Sound ecosystem.</p> <p><b><u>REQUIRED CMT EMBEDDED TASK: DIG IN</u></b></p>
<p><i>Energy Transfer and Transformations – What is the role of energy in our world? (PHYS)</i></p> <p><b>7.1 - Energy provides the ability to do work and can exist in many forms.</b></p> <p>Work is the process of making objects move through the application of force.</p> <p>Energy can be stored in many forms and can be transformed into the energy of motion.</p>	<p><b>C 12.</b> Explain the relationship among force, distance and work, and use the relationship (<math>W=F \times D</math>) to calculate work done in lifting heavy objects.</p> <p><b>C 13.</b> Explain how simple machines, such as inclined planes, pulleys and levers, are used to create mechanical advantage.</p> <p><b>C 14.</b> Describe how different types of stored (potential) energy can be used to make objects move.</p>

