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	СМТ
			Correlation/Expected
			Performances
6.4 Water moving	1.	Calculate the percentage of	C10. Explain the role of
across and through		fresh water available for	septic and sewage systems
earth materials carries		human use.	on the quality of surface
with it the products of	2.	Explain why water is a limited	and ground water.
human activities.		resource.	
>Most precipitation that			C11. Explain how human
falls on Connecticut			activity may impact water
eventually reaches Long			resources in Connecticut,
Island Sound.			such as ponds, rivers and
			the Long Island Sound
			ecosystem.

Activity: A Grave Mistake

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Content Standards		Activity Objectives	СМТ
			Correlation/Expected
			Performances
6.4 Water moving	1.	Analyze data to trace the flow	C10. Explain the role of
across and through		of contaminants in ground	septic and sewage systems
earth materials carries		water.	on the quality of surface
with it the products of	2.	Conclude that past solutions,	and ground water.
human activities.		developed with the best	C11. Explain how human
> Most precipitation		intentions, may create	activity may impact water
that falls on Connecticut		contemporary problems.	resource in Connecticut,
eventually reaches Long			such as ponds, rivers and
Island Sound.			the Long Island Sound
			ecosystem.

Activity: **Adventures in Density** Page: 25

Properties of Matter

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

Content Standards	Activity Objectives	СМТ
		Correlation/Expected Performances
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.	 Demonstrate how heat and salinity affect the density of water. Relate the compactness of water molecules to the density of water in different states. Recognize that concepts of density can be found in literature and daily life. 	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. 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

Activity: **Adventures in Density** Page: 25

Energy in the Earth's Systems

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

Content Standards		Activity Objectives	СМТ
			Correlation/Expected
			Performances
6.3 Variations in the	1.	Demonstrate how heat and	C7. Describe the effect of
amount of the sun's		salinity affect the density of	heating on the movement
energy hitting the		water.	of molecules in solids,
Earth's surface affect	2.	Relate the compactness of	liquids and gases.
daily and seasonal		water molecules to the density	
weather patterns.		of water in different states.	
>Local and regional	3.	Recognize that concepts of	
weather are affected by		density can be found in	
the amount of solar		literature and daily life.	
energy these areas			

receive and by their proximity to a large body of water.	

Activity: **A-Maze-ing Water** Page: 219

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

Content Standards	Activity Objectives	СМТ
(focus of standard)	(from Project WET activity)	Correlation/Expected
		Performances
6.4 Water moving	1. Describe urban forms of	C10. Explain the role
across and through	pollution.	of septic and sewage
earth materials carries		systems on the quality
with it the products of	2. Provide reasons why people	of surface and ground
human activities.	should monitor what they put on	water.
>Most precipitation that	their lawns or in streets.	C11. Explain how
falls on Connecticut		human activity may
eventually reaches Long	3. Identify ways to treat urban	impact water resources
Island Sound.	runoff.	in Connecticut, such
		as ponds, rivers and
		the Long Island Sound
		ecosystem.

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	СМТ
		Correlation/Expected
		Performances
6.3 Variations in the	1. Predict where water will flow	C7. Describe the effect
amount of the sun's	in watersheds.	of heating on the
energy hitting the	2. Describe drainage patterns in	movement of molecules in
Earth's surface affect	watersheds.	solids, liquids and gases.
daily and seasonal		
weather patterns.		C8. Explain how local

>Local and regional	weather conditions are
weather are affected by	related to the temperature,
the amount of solar	pressure and water content
energy these areas	of the atmosphere and the
receive and by their	proximity to a large body
proximity to a large	of water.
body of water.	

Activity: **Common Water** Page: 232

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

Content Standards		Activity Objectives	СМТ
			Correlation/Expected
			Performances
6.4 Water moving	1.	Illustrate how multiple users	C10. Explain the role of
across and through		of water resource can affect	septic and sewage systems
earth materials carries		water quality and quantity.	on the quality of surface
with it the products of	2.	Examine the complexities of	and ground water.
human activities.		providing water for all water	
>Most precipitation that		users.	C11. Explain how human
falls on Connecticut			activity may impact water
eventually reaches Long			resources in Connecticut,
Island Sound.			such as ponds, rivers and
			the Long Island Sound
			ecosystem.

Activity: Dilemma Derby

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Content Standards	Activity Objectives	СМТ
		Correlation/Expected
		Performances

6.4 Water moving	1.	Outline reasons why	C10. Explain the role of
across and through		managing water resources can	septic and sewage systems
earth materials carries		create dilemmas.	on the quality of surface
with it the products of	2.	Identify, analyze, and select	and ground water.
human activities.		actions related to a water	
> Most precipitation		resource dilemma.	C11. Explain how human
that falls on Connecticut			activity may impact water
eventually reaches Long			resources in Connecticut,
Island Sound.			such as ponds, rivers and
			the Long Island Sound
			ecosystem.

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	СМТ
			Correlation/Expected
			Performances
6.4 Water moving	1.	Determine how water	C10. Explain the role of
across and through		conservation practices save	septic and sewage systems
earth materials carries		water.	on the quality of surface
with it the products of	2.	Identify water conservation	and ground water.
human activities.		habits they can change or	
>Most precipitation that		adopt.	C11. Explain how human
falls on Connecticut	3.	Recognize that water	activity may impact water
eventually reaches Long		conservation is important.	resource in Connecticut,
Island Sound			such as ponds, rivers and
			the Long Island Sound
			ecosystem.

Activity: Get the Ground Water Picture Page: 136

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

Content Standards		Activity Objectives	СМТ
			Correlation/Expected
			Performances
6.3 Variations in the	1.	Identify the parts of a ground	C7. Describe the effect of
amount of the sun's		water system.	heating on the movement
energy hitting the	2.	Compare movement of water	of molecules in solids,
Earth's surface affect		through diverse substrates.	liquids and gases.
daily and seasonal	3.	Relate different types of land	
weather patterns.		uses to potential ground water	
>Local and regional		contamination.	
weather are affected by			
the amount of solar			
energy these areas			
receive and by their			
proximity to a large			
body of water.			

Activity: Get the Ground Water Picture Page: 136

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

Content Standards		Activity Objectives	СМТ
			Correlation/Expected
			Performances
6.4 Water moving	1.	Identify the parts of a ground	C10. Explain the role of
across and through		water system.	septic and sewage systems
earth materials carries	2.	Compare movement of water	on the quality of surface
with it the products of		through diverse substrates.	and ground water.
human activities.	3.	Relate different types of land	
>Most precipitation that		uses to potential ground water	C11. Explain how human
falls on Connecticut		contamination.	activities may impact water
eventually reaches Long			resources in Connecticut,
Island Sound.			such as ponds, rivers and
			the Long Island Sound
			ecosystem.

Activity: H₂Olympics Page: 30

Content Standards		Activity Objectives	СМТ
			Correlation/Expected
			Performances
6.1 Materials can be	1.	Demonstrate adhesive and	C1. Describe the properties
classified as pure		cohesive properties of water.	of common elements, such
substances or	2.	Relate adhesion and cohesion	as oxygen, hydrogen,
mixtures, depending		to daily activities.	carbon, iron and aluminum.
on their chemical and			
physical properties.			C2. Describe how the
>Mixtures are made of			properties of simple
combinations of			compounds, such as water
elements and/or			and table salt, are different
compounds, and they			form the properties of the
can be separated by			elements of which they are
using a variety of			made.
physical means.			

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

Activity: H₂Olympics

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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	СМТ
			Correlation/Expected
			Performances
6.3 Variations in the	1.	Demonstrate adhesive and	C7. Describe the effect of
amount of the sun's		cohesive properties of water.	heating on the movement
energy hitting the	2.	Relate adhesion and cohesion	of molecules in solids,
Earth's surface affect		to daily activities.	liquids and gases.
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.			

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	СМТ
			Correlation/Expected
			Performances
6.1 Materials can be	1.	Illustrate the structure and	C1. Describe the
classified as pure		intermolecular forces of the	properties of common
substances or		water molecule in relation to	elements, such as oxygen,
mixtures, depending		hydrogen bonding.	hydrogen, carbon, iron and
on their chemical and	2.	Explain the role of hydrogen	aluminum.
physical properties.		bonding and its relationship	
>Mixtures are made of		with some of the unique	C2. Describe how the
combinations of		characteristics of water.	properties of simple
elements and/or	3.	Deduce how these unique	compounds, such as water
compounds, and they		molecular properties of water	and table salt, are different
can be separated by		are critical to life on Earth.	from the properties of the
using a variety of			elements of which they are
physical means.			made.

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
6.3 Variations in the	1.	Illustrate the structure and	C7. Describe the effect of
amount of the sun's		intermolecular forces of the	heating on the movement
energy hitting the		water molecule in relation to	of molecules in solids,
Earth's surface affect		hydrogen bonding.	liquids and gases.
daily and seasonal	2.	Explain the role of hydrogen	
weather patterns.		bonding and its relationship	C8. Explain how local
>Local and regional		with some of the unique	weather conditions are
weather are affected by		characteristics of water.	related to the temperature,
the amount of solar	3.	Deduce how these unique	pressure and water content
energy these areas		molecular properties of water	of the atmosphere and the
receive and by their		are critical to life on Earth.	proximity of a large body
proximity to a large			of water.
body of water.			

Activity: Humpty Dumpty

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

Content Standards		Activity Objectives	СМТ
			Correlation/Expected
			Performances
6.2An ecosystem is	1.	Describe the challenges of	C4. Describe how abiotic
composed of all the		restoring an altered natural	factors, such as
population that are		landscape.	temperature, water and
living in a certain	2.	Develop a restoration plan for	sunlight, affect the ability
space and the physical		a local site.	of plants to create their
factors with which			own food through
they interact.			photosynthesis.
> Populations in			
ecosystems are affected			
by biotic factors, such			
as other populations,			
and abiotic factors, such			
as soil and water supply.			

Activity: Humpty Dumpty

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Content Standards	Activity Objectives	СМТ
		Correlation/Expected
		Performances
6.4 Water moving	1. Describe the challenges of	C11. Explain how human
across and through	restoring an altered natural	activity may impact water
earth materials carries	landscape.	resources in Connecticut,
with it the products of	2. Develop a restoration plan for	such as ponds, rivers and
human activities.	a local site.	the Long Island Sound
>Most precipitation that		ecosystem.
falls on Connecticut		
eventually reaches Long		
Island Sound.		

Activity: Imagine!

Page: 157

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

Content Standards		Activity Objectives	СМТ
			Correlation/Expected
			Performances
6.3 Variations in the	1.	Identify changes in states of	C7. Describe the effect of
amount of the sun's		water that enable water to	heating on the movement
energy hitting the		move through the water cycle.	of molecules in solids,
Earth's surface affect	2.	Describe the water cycle.	liquids and gases.
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.			

Activity: **Is there Water on Zork?** Page: 43

Properties of Matter

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

Content Standards		Activity Objectives	СМТ
			Correlation/Expected
			Performances
6.1 Materials can be	1.	Describe the qualities that	C1. Describe the
classifies as pure		distinguish water form other	properties of common
substances or		clear liquids.	elements, such as oxygen,
mixtures, depending	2.	Design an investigation to test	hydrogen, carbon, iron
on their chemical and		characteristics of water.	and aluminum.
physical properties.	3.	Analyze the efficiency and	
>Mixtures are made of		effectiveness of the	C2. Describe how the

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

Activity: Is there Water on Zork?

Page: 43

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

Content Standards	Activity Objectives	СМТ
		Correlation/Expected
		Performances
6.3 Variations in the	1. Describe the qualities that	C7. Describe the effect of
amount of the sun's	distinguish water form other	heating on the movement
energy hitting the	clear liquids.	of molecules in solids,
Earth's surface affect	2. Design an investigation to test	liquids and gases.
daily and seasonal	characteristics of water.	

weather patterns.	3. Analyze the efficiency and	
>Local and regional	effectiveness of the	
weather are affected by	investigation.	
the amount of solar		
energy these areas		
receive and by their		
proximity to a large		
body of water.		

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

Activity: Life In the Fast Lane Page: 79

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

		CMT
Content Standards	Activity Objectives	CMI
(focus of standard)	(from Project WET activity)	Correlation/Expected
		Performances
6.2 An ecosystem is	1. Describe physical and	C4. Describe how
composed of all the	biological components of	abiotic factors, such as
populations that are	wetlands.	temperature, water and
living in a certain	2. Recognize the importance of	sunlight, affect the
space and the physical	temporary wetlands to larger	ability of plants to
factors with which	ecosystems.	create their own food
they interact.	3. Explain how organisms in	through
>Populations in	temporary wetlands race against	photosynthesis.
ecosystems are affected	time to obtain water, shelter, food	
by biotic factors, such as	and a mate.	C5. Explain how
other populations, and		populations are
abiotic factors, such as		affected by predator-
soil and water supply.		prey relationships.
>Populations in		
ecosystems can be		C6 Describe common
categorized as		food webs in different
producers, consumers		Connecticut
and decomposers of		ecosystems.
organic matter.		

Activity: Macroinvertebrate Mayhem Page: 322

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

Content Standards	Activity Objectives	СМТ
		Correlation/Expected
		Performances

6.2 An ecosystem is	1.	Illustrate how tolerance to	C4. Describe how abiotic
composed of all the		water quality conditions varies	factors, such as
populations that are		among macroinvertebrate	temperature, water, and
living in a certain		organisms.	sunlight, affect the ability
space and the physical	2.	Explain how population	of plants to create their
factors with which		diversity provides insight into	own food through
they interact.		the health of an ecosystem.	photosynthesis.
>Populations in			
ecosystems are affected			
by biotic factors, such			
as other populations,			
and abiotic factors, such			
as soil and water supply.			

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	СМТ
			Correlation/Expected
			Performances
6.4 Water moving	1.	Illustrate how tolerance to	C10. Explain the role of
across and through		water quality conditions varies	septic and sewage systems
earth materials carries		among macroinvertebrate	on the quality of surface
with it the products of		organisms.	and ground water.
human activities.	2.	Explain how population	
>Most precipitation that		diversity provides insight into	C11. Explain how human
falls on Connecticut		the health of an ecosystem.	activity may impact water
eventually reaches Long			resources in Connecticut,
Island Sound.			such as ponds, rivers and
			the Long Island Sound
			ecosystem.

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

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	СМТ
		Correlation/Expected
		Performances
6.3 Variations in the	1. Model the effects of heat energy	C7. Describe the effect of
amount of the sun's	on the state of water	heating on the movement of
energy hitting the		molecules in solids, liquids
Earth's surface affect		and gases.
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.		

Activity: **No Bellyachers** Page: 85

Content Standards		Activity Objectives	СМТ
			Correlation/Expected
			Performances
6.4 Water moving	1.	Recognize factors that	C10. Explain the role of
across and through		contribute to avoiding a cold	septic and sewage systems
earth materials carries		or influenza.	on the quality of surface
with it the products of	2.	Describe how some infectious	and ground water.
human activities.		diseases are spread by water	
>Most precipitation that		or water droplets.	C11. Explain how human
falls on Connecticut	3.	Identify ways to reduce the	activity may impact water
eventually reaches Long		chances of becoming infected	resources in Connecticut,
Island Sound.		with a disease.	such as ponds, rivers and
			the Long Island Sound
			ecosystem.

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	СМТ
			Correlation/Expected
			Performances
6.2 An ecosystem is	1.	Describe characteristics of	C4. Describe how abiotic
composed of all the		bog environments.	factors, such as
populations that are	2.	Explain the conditions of	temperature, water and
living in a certain		bogs that allow for the	sunlight, affect the ability
space and the physical		preservation of artifacts from	of plants to create their
factors with which		the past.	own food through
they interact.	3.	Compare the rates of	photosynthesis.
>Populations in		decomposition of articles in	
ecosystems are affected		aerobic and anaerobic	C5. Explain how
by biotic factors, such		environments.	populations are affected by
as other populations,			predator-prey relationships.
and abiotic factors, such			
as soil and water supply.			C6. Describe common food
>Populations in			webs in different
ecosystems can be			Connecticut ecosystems.
categorized as			
producers, consumers			
and decomposers of			
organic matter.			

Activity: **Perspectives** Page: 397 Science and Technology in Society How do science and technology affect the quality of our lives?

Content Standards		Activity Objectives	СМТ
			Correlation/Expected
			Performances
6.4 Water moving	1.	Recognize that people have	C10. Explain the role of
across and through		differing values regarding	septic and sewage systems
earth materials carries		water resource management	on the quality of surface
with it the products of		issues.	and ground water.
human activities.	2.	Evaluate strengths and	
>Most precipitation that		weaknesses of proposed	C11. Explain how human
falls on Connecticut		solutions to water resource	activity may impact water
eventually reaches Long		management issues.	resources in Connecticut,
Island Sound.	3.	Describe purposes of diverse	such as ponds, rivers and
		advocacy groups and	the Long Island Sound
		summarize their similarities	ecosystem.
		and differences.	

Activity: Rainy-Day Hike

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Content Standards	Activity Objectives	CMT Correlation/Expected
		Performances
6.4 Water moving	1. Identify the	C10. Explain the role of septic and
across and through	watershed in which	sewage systems on the quality of
earth materials carries	their school is	surface and ground water.
with it the products of	located.	
human activities.	2. Explain the role the	C11. Explain how human activity
>Most precipitation that	schoolyard plays in	may impact water resources in
falls on Connecticut	the watershed.	Connecticut, such as ponds, rivers
eventually reaches Long		and the Long Island Sound
Island Sound.		ecosystem.

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	СМТ
			Correlation/Expected
			Performances
6.4 Water moving	1.	Describe the relationship	C10. Explain the role of
across and through		between water quality and	septic and sewage systems
earth materials carries		water treatment.	on the quality of surface
with it the products of	2.	Be aware of the ratio of one to	and ground water.
human activities.		a million.	
Most precipitation that			C11. Explain how human
falls on Connecticut			activity may impact water
eventually reaches Long			resources in Connecticut,
Island Sound.			such as ponds, rivers and
			the Long Island Sound
			ecosystem.

Activity: Salt Marsh Players Page: 99

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

Content Standards		Activity Objectives	СМТ
			Correlation/Expected
			Performances
6.2 An ecosystem is	1.	Demonstrate how various salt	C4. Describe how abiotic
composed of all the		marsh plants and animals	factors such as
population that are		adapt to environmental	temperature, water and
living in a certain		conditions	sunlight, affect the ability
space and the physical	2.	Recognize various plants and	of plants to create their
factors with which		animals that live in salt	own food through
they interact.		marshes	photosynthesis.
>Populations in			
ecosystems are affected			C5. Explain how
by biotic factors, such			populations are affected by
as other populations,			predator-prey relationships.
and abiotic factors, such			
as soil and water supply.			C6. Describe common food
>Populations in			webs in different
ecosystems can be			Connecticut ecosystems.
categorized as			
producers, consumers			
and decomposers of			

organic material.	

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

Activity: **Sparkling Water** Page: 348

Content Standards		Activity Objectives	СМТ
			Correlation/Expected
			Performances
6.4 Water moving	1.	Describe the processes for	C10. Explain the role of
across and through		treating wastewater.	septic and sewage systems
earth materials carries	2.	Compare how water is	on the quality of surface
with it the products of		cleaned in the water cycle to	and ground water.
human activities.		how it is cleaned in	
Most precipitation that		contemporary water treatment	C11. Explain how human
falls on Connecticut		systems.	activity may impact water
eventually reaches Long	3.	List nontoxic household	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** Page: 267

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

Content Standards		Activity Objectives	СМТ
			Correlation/Expected
			Performances
6.4 Water moving	1.	Distinguish between point	C10. Explain the role of
across and through		and non-point source	septic and sewage systems
earth materials carries		pollution.	on the quality of surface
with it the products of	2.	Recognize that everyone	and ground water.
human activities.		contribute to and is	
> Most precipitation		responsible for a river or	C11. Explain how human
that falls on Connecticut		lake's water quality.	activity may impact water
eventually reaches Long	3.	Identify Best Management	resources in Connecticut,
Island Sound.		Practices to reduce pollution.	such as ponds, rivers and
			the Long Island Sound
			ecosystem.

Activity: Super Bowl Surge

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Content Standard	Activity Objectives	СМТ
		Correlation/Expected
		Performances

6.4 Water moving	1.	Illustrate how demands on	C10. Explain the role of
across and through		some treatment plants cause	septic and sewage systems
earth materials carries		overflow.	on the quality of surface
with it the products of	2.	Explain problems with sewage	and ground water.
human activities.		overflow.	
>Most precipitation that	3.	Propose solutions to a water	C11. Explain how human
falls on Connecticut		management problem.	activity may impact water
eventually reaches Long	4.	Recognize how presentation	resources in Connecticut,
Island Sound.		strategies influence public	such as ponds, rivers and
		policy.	the Long Island Sound
			ecosystem.

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	СМТ
			Correlation/Expected
			Performances
6.4 Water moving	1.	Identify the role of water in	C10. Explain the role of
across and through		transmitting diseases.	septic and sewage systems
earth materials carries	2.	Compare symptoms of several	on the quality of surface
with it the products of		waterborne diseases.	and ground water.
human activities.	3.	Analyze the characteristics of	
>Most precipitation that		environments that promote the	C11. Explain how human
falls on Connecticut		transmission of these diseases	activity may impact water
eventually reaches Long		around the world.	resources in Connecticut,
Island Sound.			such as ponds, rivers and
			the Long Island Sound
			ecosystem

Activity: **The Incredible Journey** Page: 161

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	1.	Describe the movement of	C7. Describe the effect of
amount of the sun's		water within the water cycle.	heating on the movement
energy hitting the	2.	Identify the states of water as	of molecules in solids,
Earth's surface affect		it moves through the water	liquids and gases.
daily and seasonal		cycle.	
weather patterns.			C8. Describe how local
Local and regional			weather conditions are
weather are affected by			related to the temperature,
the amount of solar			pressure and water content
energy these areas			of the atmosphere and the
receive and by their			proximity to a large body
proximity to a large			of water.
body of water.			
-			

Activity: The Incredible Journey

Page: 161

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

Content Standards		Activity Objectives	СМТ
			Correlation/Expected
			Performances
6.4 Water moving	1.	Describe the movement of	C11. Explain how human
across and through		water within the water cycle.	activity may impact water
earth materials carries	2.	Identify the states of water as	resources in Connecticut,
with it the products of		it moves through the water	such as ponds, rivers and
human activities. Most		cycle.	Long Island Sound
precipitation that falls			ecosystem.
on Connecticut			
eventually reaches Long			
Island Sound.			

Activity: The Long Haul

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Content Standards	Activity Objectives	СМТ
		Correlation/Expected

		Performances
6.4 Water moving	1. Develop an awareness of	C10. Explain the role of
across and through	various volumes of water.	septic and sewage systems
earth materials carries	2. Appreciate today's readily	on the quality of surface
with it the products of	available water supplies.	and ground water.
human activities.	3. Relate how easy access to	
>Most precipitation that	water can encourage people	C11. Explain how human
falls on Connecticut	to use large amounts of	activity may impact water
eventually reaches Long	water.	resources in Connecticut,
Island Sound.		such as ponds, rivers and
		the Long Island Sound
		ecosystem.

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
6.4 Water moving	1.	Describe how underground	C10. Explain the role of
across and through		point source pollutants move	septic and sewage systems
earth materials carries		through ground water.	on the quality of surface
with it the products of	2.	Analyze data from test wells	and ground water.
human activities.		they have "drilled" to identify	
>Most precipitation that		point source pollutants.	C11. Explain how human
falls on Connecticut			activity may impact water
eventually reaches Long			resources in Connecticut,
Island Sound.			such as ponds, rivers and
			the Long Island Sound
			ecosystem.

Activity: Thirsty Plants

Page: 116

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

Content Standards	Activity Objectives	СМТ
		Correlation/Expected

			Performances
6.2 An ecosystem is	1.	Explain how plants transport	C4. Describe how abiotic
composted of all the		water through transpiration.	factors, such as
populations that are	2.	Describe the importance of	temperature, water and
living in a certain		plants in the water cycle.	sunlight, affect the ability
space and the physical	3.	Recognize that certain plants	of plants to create their
factors with which		are appropriate for	own food through
they interact.		xeriscaping.	photosynthesis.
>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.			

Activity: Thirsty Plants

Page: 116

Energy in the Earth's Systems

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

Content Standards		Activity Objectives	СМТ
			Correlation/Expected
			Performances
6.3 Variations in the	1.	Explain how plants transport	C7. Describe the effect of
amount of the sun's		water through transpiration.	heating on the movement
energy hitting the	2.	Describe the importance of	of molecules in solids,
Earth's surface affect		plants in the water cycle.	liquids and gases.
daily and seasonal	3.	Recognize that certain plants	
weather patterns.		are appropriate for	
>Local and regional		xeriscaping.	
weather are affected by			
the amount of solar			
energy these areas			
receive and by their			
proximity to a large			
body of water.			

Activity: Water Address

Page: 122

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

Content Standards	Activity Objectives	СМТ
		Correlation/Expected
		Performances
6.2 An ecosystem is	1. Recognize water-related	C5. Explain how
composed of all the	adaptations of some plants and	populations are affected
populations that are	animals.	by predator-prey
living in a certain		relationships.
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.		

Activity: Water Models

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Energy in the Earth's systems

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

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

	uneven heating of the Earth's surface causes winds.

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	СМТ
			Correlation/Expected
			Performances
6.4 Water moving	1.	Distinguish between direct	C10. Explain the role of
across and through		and indirect uses of water.	septic and sewage systems
earth materials carries	2.	Illustrate the	on the quality of surface
with it the products of		interconnectedness of water	and ground water.
human activities.		users in a community.	
>Most precipitation that	3.	Demonstrate the complexity	C11. Explain how human
falls on Connecticut		of resolving water shortages	activity may impact water
eventually reaches Long		among interdependent	resources in Connecticut,
Island Sound.		community water users.	such as ponds, rivers and
		-	the Long Island Sound
			ecosystem.

Activity: Wet Vacation

Page: 206

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

Content Standards	Activity Objectives	СМТ
		Correlation/Expected
		Performances

6.2 An ecosystem is	1.	Identify factors that affect	C4. Describe how abiotic
composed of all the		temperature and precipitation	factors, such as
populations that are		patterns.	temperature, water and
living in a certain	2.	Analyze how weather	sunlight, affect the ability
space and the physical		conditions influence tourism.	of plants to create their
factors with which			own food through
they interact.			photosynthesis.
>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.			

Activity: Wet Vacation

Page: 206

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

Content Standards		Activity Objectives	СМТ
			Correlation/Expected
			Performances
6.3 Variations in the	1.	Identify factors that affect	C7. Describe the effect of
amount of the sun's		temperature and precipitation	heating on the movement
energy hitting the		patterns.	of molecules in solids,
Earth's surface affect	2.	Analyze how weather	liquids and gases.
daily and seasonal		conditions influence tourism.	
weather patterns.			C8. Explain how local

>Local and regional	weather conditions are
weather are affected by	related to the temperature,
the amount of solar	pressure and water content
energy these areas	of the atmosphere and the
receive and by their	proximity to a large body
proximity to a large	of water.
body of water.	
	C9. Explain how the
	uneven heating of the
	Earth's surface causes
	winds.

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	СМТ
			Correlation/Expected
			Performances
6.3 Variations in the	1.	Classify soils according to	C8. Explain how local
amount of the sun's		color to confirm that an area	weather conditions are
energy hitting the		is a wetland.	related to the temperature,
Earth's surface affect	2.	Describe conditions that	pressure and water content
daily and seasonal		create the color characteristics	of the atmosphere and the
weather patterns.		of wetland soils.	proximity to a large body
>Local and regional			of water.
weather are affected by			
the amount of solar			
energy these areas			
receive and by their			
proximity to a large			
body of water.			

Activity: What's the Solution?

Page: 54

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

Content Standards	Activity Objectives	СМТ
		Correlation/Expected
		Performances

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

Activity: Where are the Frogs? Page: 279

Properties of Matter

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

Content Standards	Activity Objectives	СМТ
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			Correlation/Expected Performances
6.1 Materials can be	1.	Illustrate the meaning of pH.	C1. Describe the
classified as pure	2.	Analyze the effects of acidic	properties of common
substances or		water on plant and animal	elements, such as
mixtures, depending		life.	oxygen, hydrogen,
on their chemical and	3.	Describe how acid rain can	carbon, iron and
physical properties.		affect ecosystems.	aluminum.
>Mixtures are made of			
combinations of			
elements and/or			
compounds, and they			
can be separated by			
using a variety of			
physical means.			

Activity: Where are the Frogs?

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

			CI MT
Content Standards		Activity Objectives	CMT
			Correlation/Expected
			Performances
6.2 An ecosystem is	1.	Illustrate the meaning of pH.	C4. Describe how abiotic
composed of all the	2.	Analyze the effects of acidic	factors, such as
populations that are		water on plant and animal	temperature, water and
living in a certain		life.	sunlight, affect the ability
space and the physical	3.	Describe how acid rain can	of plants to create their
factors with which		affect ecosystems.	own food through
they interact.			photosynthesis.
>Populations in			
ecosystems are affected			
by biotic factors, such			
as other populations,			
and abiotic factors, such			
as soil and water supply.			

Activity: Where are the Frogs? Page: 279

Content Standards	Activity Objectives	СМТ
		Correlation/Expected
		Performances
6.4 Water moving	1. Illustrate the meaning of pH.	C11. Explain how human
across and through	2. Analyze the effects of acidic	activity may impact
earth materials carries	water on plant and animal	water resources in
with it the products of	life.	Connecticut, such as
human activities.	3. Describe how acid rain can	ponds, rivers and the
>Most precipitation that	affect ecosystems.	Long Island Sound
falls on Connecticut		ecosystem.
eventually reaches Long		
Island Sound.		

Activity: Whose Problem is it?

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

Content Standards		Activity Objectives	СМТ
			Correlation/Expected
			Performances
6.4 Water moving	1.	Analyze how water issues	C11. Explain how human
across and through		affect individuals as well as	activity may impact
earth materials carries		world populations, and how	water resources in
with it the products of		these issues can have short-	Connecticut, such as
human activities.		and/or long-term	ponds, rivers and the
>Most precipitation that		implications.	Long Island Sound
falls on Connecticut	2.	Illustrate the scope and	ecosystem.
eventually reaches Long		duration of water-related	
Island Sound.		issues.	

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