Grade 3

Activity: Cold Cash in the Icebox

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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
(focus of standard)	(from Project WET activity)	Correlation/Expected
		Performances
3.1 Materials have	1. Compare the insulating	B2. Describe the
properties that can be	properties of various materials	effect of heating on
identified and		the melting,
described through the		evaporation,
use of simple tests.		condensation and
> Heating and cooling		freezing of water.
cause changes in some		
of the properties of		
materials.		

Activity: Energetic Water

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Properties of Matter

Content Standards	Activity Objectives	CMT
		Correlation/Expected
		Performances
3.1 Materials have	1. Identify the forms of energy in	B1. Sort and classify
properties that can be	water	materials based on
identified and	2. Demonstrate how water can be	properties such as
described through the	used to do work.	dissolving in water,
use of simple tests.		sinking and floating,
> Heating and cooling		conducting heat, and
cause changes in some		attracting magnets.
of the properties of		
materials.		

Activity: Every Drop Counts

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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
3.4 Earth materials	1. Determine how water	B7. Describe how
provide resources for	conservation practices save	earth materials can be
all living things, but	water.	conserved by reducing
these resources are	2. Identify water conservation	the quantities used,
limited and should be	habits they can change or	and by reusing and
conserved.	adopt.	recycling materials
>Decisions made by	3. Recognize that water	rather than discarding
individuals can impact	conservation is important.	them.
the global supply of		
many resources.		

Activity: Geyser Guts

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Properties of Matter

Content Standards	Activity Objectives	СМТ
		Correlation/Expected
	4 T •1 1•.•	Terrormances
3.1 Materials have	1. List the conditions necessary	B2. Describe the effect
properties that can be	for a geyser	of heating on the
identified and	2. Compare and contrast a	melting, evaporation,
described through the	geyser, hot spring, fumaroles,	condensation and
use of simple tests.	and mud pot.	freezing of water.
>Heating and cooling		
cause changes in some		
of the properties of		
materials.		

Activity: **Geyser Guts** Page 144

Content Standards		Activity Objectives	СМТ
			Correlation/Expected
			Performances
3.3 Earth materials	1.	List the conditions necessary	B5. Describe the
have different physical		for a geyser	physical properties of
and chemical	2.	Compare and contrast a	rocks and relate them
properties.		geyser, hot spring, fumaroles,	to their potential uses.
>Rocks and minerals		and mud pot.	
have properties that may			B6. Relate the
be identified through			properties of rocks to
observation and testing;			the possible
these properties			environmental
determine how earth			conditions during their
materials are used.			formation.

The Changing Earth How do materials cycle through the earth's systems?

Activity: $H_2Olympics$

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Properties of Matter

Content Standards	Activity Objectives	СМТ
		Correlation/Expected
		Performances
3.1 Materials have	1. Demonstrate adhesive and	B1. Sort and classify
properties that can be	cohesive properties of water.	materials bases on
identified and	2. Relate adhesion and cohesion	properties such as
described through the	to daily activities.	dissolving in water,
use of simple tests.		sinking and floating,
> Heating and cooling		conducting heat, and
cause changes in some		attracting to magnets.
of the properties of		
materials.		B2. Describe the effect
		of heating on the
		melting, evaporation,

	condensation and freezing of water.

Activity: Imagine!

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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
		Correlation/Expected
		Performances
3.1 Materials have	1. Identify changes in states of	B1. Sort and classify
properties that can be	water that enable water to	materials based on
identified and	move through the water cycle.	properties such as
described through the	2. Describe the water cycle.	dissolving in water,
use of simple tests.		sinking and floating,
>Heating and cooling		conducting heat, and
cause changes in some		attracting magnets.
of the properties of		
materials.		B2. Describe the effect
		of heating on the
		melting, evaporation,
		condensation and
		freezing of water.

Activity: Let's Even Things Out

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Properties of Matter

Content Standards	Activity Objectives	СМТ
		Correlation/Expected
		Performances
3.1 Materials have	1. Describe and demonstrate the	B2. Describe the effect
properties that can be	processes of osmosis and	of heating on the
identified and	diffusion.	melting, evaporation,
described through the		condensation and
use of simple tests.		freezing of water.
> Heating and cooling		

cause changes in some of the properties of materials.	

Activity: Macroinvertebrate Mayhem Page: 322

Heredity and Evolution What processes are responsible for life's unity and diversity?

Content Standards		Activity Objectives	СМТ
			Correlation/Expected
			Performances
3.2 Organisms can	1.	Illustrate how tolerance to	B4. Describe how
survive and reproduce		water quality conditions varies	different plants and
only in environments		among macroinvertebrate	animals are adapted to
that meet their basic		organisms.	obtain air, water, food
needs.	2.	Explain how population	and protection in
> Plants and animals		diversity provides insight into	water habitats.
have structures and		the health of an ecosystem.	
behaviors that help them			
survive in different			
environments.			

Activity: Molecules in Motion

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Properties of Matter

Content Standards	Activity Objectives	СМТ
		Correlation/Expected
		Performances

3.1 Materials have	1. Model the effects of heat	B2. Describe the
properties that can be	energy on the state of water	effect of heating on
identified and		the melting,
described through the		evaporation,
use of simple tests.		condensation and
Heating and cooling		freezing of water.
cause changes in some		
of the properties of		
materials.		

Activity: **Rainy-Day Hike**

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The Changing Earth How do materials cycle through the Earths systems?

Content Standards	Activity Objectives	CMT Correlation/Expected
		Performances
3.3 Earth materials	1. Identify the	B5. Describe the physical properties of
have different physical	watershed in which	rocks and relate them to their potential
and chemical	their school is	uses.
properties.	located.	
> Rocks and minerals have properties that may be identified through	2. Explain the role the schoolyard plays in the watershed	B6. Relate the properties of rocks to the possible environmental conditions during their formation
observation and testing;	the watershed.	
determine how earth		
materials are used.		

Activity: Reaching Your Limits

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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
3.1 Materials have	1. Describe the relationship	B2. Describe the effect
properties that can be	between water quality and	of heating on the
identified and	water treatment.	melting, evaporation,
described through the	2. Be aware of the ratio of one to	condensation, and
use of simple tests.	a million.	freezing of water.
> Heating and cooling		
cause changes in some		
of the properties of		
materials.		

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
3.4 Earth materials	1. Describe the relationship	B7. Describe how
provide resource for	between water quality and	earth materials can be
all living things, but	water treatment.	conserved by reducing
these resources are	2. Be aware of the ratio of one to	the quantities used,
limited and should be	a million.	and by reusing and
conserved.		recycling materials
> Decisions made by		rather than discarding
individuals can impact		them.
the global supply of		
many resources.		

Activity: Salt Marsh Players Page: 99

Heredity and Evolution What processes are responsible for life's unity and diversity?

Content Standards	Activity Objectives	СМТ
		Correlation/Expected
		Performances
3.2 Organisms can	1. Demonstrate how various salt	B4. Describe how
survive and reproduce	marsh plants and animals	different plants and
only in environments	adapt to environmental	animals are adapted to
that meet their basic	conditions	obtain air, water, food
needs.	2. Recognize various plants and	and protection in
>Plants and animals	animals that live in salt	water habitats.
have structures and	marshes	
behaviors that help them		
survive in different		
environments.		

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	СМТ
		Correlation/Expected
		Performances
3.4 Earth materials	1. Distinguish between point	B7. Describe how
provide resources for	and non-point source	earth materials can be
all living things, but	pollution.	conserved by reducing
these resources are	2. Recognize that everyone	the quantities used,
limited and should be	contribute to and is	and by reusing and
conserved.	responsible for a river or	recycling materials
> Decisions made by	lake's water quality.	rather than discarding
individuals can impact	3. Identify Best Management	them.
the global supply of	Practices to reduce pollution.	
many resources.		

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

Properties of Matter

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

Content Standards	Activity Objectives	СМТ
		Correlation/Expected
		Performances
3.1 Materials have	1. Describe the movement of	B2. Describe the
properties that can be	water within the water cycle.	effect of heating on
identified and	2. Identify the states of water as	the melting,
described through the	it moves through the water	evaporation,
use of simple tests.	cycle.	condensation and
> Heating and cooling		freezing of water.
cause changes in some		
of the properties of		
materials.		

Activity: The Long Haul

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Environmental Science

Content Standards	Activity Objectives	СМТ
		Correlation/Expected
		Performances
3.4 Earth materials	1. Develop an awareness of	B7. Describe how
provide resources for	various volumes of water.	earth materials can be
all living things, but	2. Appreciate today's readily	conserved by reducing
these resources are	available water supplies.	the quantities used, and
limited and should be	3. Relate how easy access to	by reusing and
conserved.	water can encourage people	recycling materials
> Decisions made by	to use large amounts of	rather than discarding
individuals can impact	water.	them.
the global supply of		
many resources.		

Activity: Water Address

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Heredity and Evolution What processes are responsible for life's unity and diversity?

Content Standards	Activity Objectives	CMT
		Correlation/Expected
		Performances
3.2 Organisms can	1. Recognize water-related	B4. Describe how
survive and reproduce	adaptations of some plants and	different plants and
only in environments	animals.	animals are adapted to
that meet their basic		obtain air, water, food
needs.		and protection in
> Plants and animals		water habitats.
have structures and		
behaviors that help them		
survive in different		
environments.		

Activity: Water Match

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Earth Science

Content Standard	Activity Objectives	СМТ
		Correlation/Expected
		Performances
3.1 Materials have	1. Identify the three stages of	B1. Sort and classify
properties that can be	water; solid, liquid, and gas	materials based on
identified and	2. Recognize that water can	properties such as
described through the	become polluted and that	dissolving in water,
use of simple tests.	some water can be cleaned.	sinking and floating,
> Heating and cooling		conducting heat, and
cause changes in some		attracting to magnets.
of the properties of		
materials.		B2. Describe the effect
		of heating on the
		melting, evaporation,
		condensation and

	freezing of water.

Activity: Water Meter

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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
3.4 Earth materials	1. Become aware of their daily	B7. Describe how
provide resource for	use of water.	earth materials can be
all living things, but		conserved by reducing
these resources are		the quantities used,
limited and should be		and by reusing and
conserved.		recycling materials
>Decisions made by		rather than discarding
individuals can impact		them.
the global supply of		
many resources.		

Activity: Water Models

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Properties of Matter

Content Standards	Activity Objectives	СМТ
		Correlation/Expected
		Performances
3.1 Materials have	1. Recognize the roles of	B2. Describe the effect
properties that can be	condensation and evaporation	of heating on the melting,
identified and	in the water cycle.	evaporation,
described through the	2. Relate the water cycle to	condensation and
use of simple tests.	different climates and	freezing of water.

> Heating and cooling cause changes in some of the properties of materials.	ecosystems around the world.	
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Activity: Water Works Page: 274

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

Content Standards	Activity Objectives	СМТ
		Correlation/Expected
		Performances
3.4 Earth materials	1. Distinguish between direct	B7. Describe how
provide resources for	and indirect uses of water.	earth materials can be
all living things, but	2. Illustrate the	conserved by reducing
these resources are	interconnectedness of water	the quantities used,
limited and should be	users in a community.	and by reusing and
conserved.	3. Demonstrate the complexity	recycling materials
> Decisions made by	of resolving water shortages	rather than discarding
individuals can impact	among interdependent	them.
the global supply of	community water users.	
many resources.		

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	СМТ
(focus of standard)	(from Project WET activity)	Correlation/Expected
		Performances

3.1 Materials have	1. Discriminate solutions from	B1. Sort and classify
properties that can be	other mixtures.	materials based on
identified and	2. Demonstrate water's ability to	properties such as
described through the	dissolve solids, liquids, and gases.	dissolving in water,
use of simple tests.		sinking and floating,
>Heating and cooling		conducting heat, and
cause changes in some		attracting to magnets
of the properties of		
materials.		

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