

Main Criteria: National Theatre for Children

Secondary Criteria: Maryland College and Career-Ready Standards, Next Generation Science Standards (NGSS)

Subject: Science

Grades: 3, 4, 5

National Theatre for Children

How energy is used unwisely

Maryland College and Career-Ready Standards

Science

Grade 3 - Adopted: 2008

STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.A.1.	Constructing Knowledge: Gather and question data from many different forms of scientific investigations which include reviewing appropriate print resources, observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
INDICATOR / PROFICIENCY LEVEL	1.A.1.e.	Follow directions carefully and keep accurate records of one's work in order to compare data gathered.
STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.B.1.	Applying Evidence and Reasoning: Seek better reasons for believing something than 'Everybody knows that...' or 'I just know' and discount such reasons when given by others.
INDICATOR / PROFICIENCY LEVEL	1.B.1.a.	Develop explanations using knowledge possessed and evidence from observations, reliable print resources, and investigations.
STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.C.1.	Communicating Scientific Information: Recognize that clear communication is an essential part of doing science because it enables scientists to inform others about their work, expose their ideas to criticism by other scientists, and stay informed about scientific discoveries around the world.
INDICATOR / PROFICIENCY LEVEL	1.C.1.b.	Avoid choosing and reporting only the data that show what is expected by the person doing the choosing.
INDICATOR / PROFICIENCY LEVEL	1.C.1.d.	Construct and share reasonable explanations for questions asked.

Maryland College and Career-Ready Standards

Science

Grade 4 - Adopted: 2008

STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.A.1.	Constructing Knowledge: Gather and question data from many different forms of scientific investigations which include reviewing appropriate print resources, observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
INDICATOR / PROFICIENCY LEVEL	1.A.1.e.	Follow directions carefully and keep accurate records of one's work in order to compare data gathered.
STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.B.1.	Applying Evidence and Reasoning: Seek better reasons for believing something than 'Everybody knows that...' or 'I just know' and discount such reasons when given by others.
INDICATOR / PROFICIENCY LEVEL	1.B.1.a.	Develop explanations using knowledge possessed and evidence from observations, reliable print resources, and investigations.

STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.C.1.	Communicating Scientific Information: Recognize that clear communication is an essential part of doing science because it enables scientists to inform others about their work, expose their ideas to criticism by other scientists, and stay informed about scientific discoveries around the world.
INDICATOR / PROFICIENCY LEVEL	1.C.1.b.	Avoid choosing and reporting only the data that show what is expected by the person doing the choosing.
INDICATOR / PROFICIENCY LEVEL	1.C.1.d.	Construct and share reasonable explanations for questions asked.

Maryland College and Career-Ready Standards

Science

Grade 5 - Adopted: 2008

STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.A.1.	Constructing Knowledge: Gather and question data from many different forms of scientific investigations which include reviewing appropriate print resources, observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
INDICATOR / PROFICIENCY LEVEL	1.A.1.e.	Follow directions carefully and keep accurate records of one's work in order to compare data gathered.
STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.B.1.	Applying Evidence and Reasoning: Seek better reasons for believing something than 'Everybody knows that...' or 'I just know' and discount such reasons when given by others.
INDICATOR / PROFICIENCY LEVEL	1.B.1.a.	Develop explanations using knowledge possessed and evidence from observations, reliable print resources, and investigations.
STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.C.1.	Communicating Scientific Information: Recognize that clear communication is an essential part of doing science because it enables scientists to inform others about their work, expose their ideas to criticism by other scientists, and stay informed about scientific discoveries around the world.
INDICATOR / PROFICIENCY LEVEL	1.C.1.b.	Avoid choosing and reporting only the data that show what is expected by the person doing the choosing.
INDICATOR / PROFICIENCY LEVEL	1.C.1.d.	Construct and share reasonable explanations for questions asked.
STRAND / TOPIC / STANDARD	MD.6.0.	Environmental Science: Students will use scientific skills and processes to explain the interactions of environmental factors (living and non-living) and analyze their impact from a local to a global perspective.
TOPIC / INDICATOR	6.A.1.	Natural Resources and Human Needs: Recognize and explain how renewable and nonrenewable natural resources found in Maryland are used by humans to meet basic needs.
INDICATOR / PROFICIENCY LEVEL	6.A.1.a.	Identify and compare Maryland's renewable resources and nonrenewable resources.
INDICATOR / PROFICIENCY LEVEL	6.A.1.b.	Describe how humans use renewable natural resources, such as plants, soil, water, animals.
INDICATOR / PROFICIENCY LEVEL	6.A.1.c.	Describe how humans use nonrenewable natural resources, such as oil, coal, natural gas, minerals, including metals
STRAND / TOPIC / STANDARD	MD.6.0.	Environmental Science: Students will use scientific skills and processes to explain the interactions of environmental factors (living and non-living) and analyze their impact from a local to a global perspective.
TOPIC / INDICATOR	6.B.1.	Environmental Issues: Recognize and explain that decisions influencing the use of natural resources may have benefits, drawbacks, unexpected consequences, and tradeoffs.

INDICATOR / PROFICIENCY LEVEL	6.B.1.a.	Identify and describe personal and community behaviors that waste natural resources and/or cause environmental harm and those behaviors that maintain or improve the environment.
INDICATOR / PROFICIENCY LEVEL	6.B.1.b.	Identify and describe that individuals and groups assess and manage risk to the environment differently.
STRAND / TOPIC / STANDARD	MD.6.0.	Environmental Science: Students will use scientific skills and processes to explain the interactions of environmental factors (living and non-living) and analyze their impact from a local to a global perspective.
TOPIC / INDICATOR	6.B.2.	Environmental Issues: Recognize and describe that consequences may occur when Earth's natural resources are used.
INDICATOR / PROFICIENCY LEVEL	6.B.2.a.	Explain how human activities may have positive consequences on the natural environment: Recycling centers; Native plantings; Good farming practice.

Next Generation Science Standards (NGSS)

Science

Grade 4 - Adopted: 2013

STRAND	NGSS.4-PS.	PHYSICAL SCIENCE
TITLE	4-PS3.	Energy
		Students who demonstrate understanding can:
PERFORMANCE EXPECTATION	4-PS3-2.	Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents.
STRAND	NGSS.4-ESS.	EARTH AND SPACE SCIENCE
TITLE	4-ESS3.	Earth and Human Activity
		Students who demonstrate understanding can:
PERFORMANCE EXPECTATION	4-ESS3-1.	Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment.

Next Generation Science Standards (NGSS)

Science

Grade 5 - Adopted: 2013

STRAND	NGSS.5-ESS.	EARTH AND SPACE SCIENCE
TITLE	5-ESS3.	Earth and Human Activity
		Students who demonstrate understanding can:
PERFORMANCE EXPECTATION	5-ESS3-1.	Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.

How we can use energy efficiently

Maryland College and Career-Ready Standards

Science

Grade 3 - Adopted: 2008

STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.A.1.	Constructing Knowledge: Gather and question data from many different forms of scientific investigations which include reviewing appropriate print resources, observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
INDICATOR / PROFICIENCY LEVEL	1.A.1.e.	Follow directions carefully and keep accurate records of one's work in order to compare data gathered.
STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.B.1.	Applying Evidence and Reasoning: Seek better reasons for believing something than 'Everybody knows that...' or 'I just know' and discount such reasons when given by others.
INDICATOR / PROFICIENCY	1.B.1.a.	Develop explanations using knowledge possessed and evidence from observations, reliable print resources, and investigations.

LEVEL		
STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.C.1.	Communicating Scientific Information: Recognize that clear communication is an essential part of doing science because it enables scientists to inform others about their work, expose their ideas to criticism by other scientists, and stay informed about scientific discoveries around the world.
INDICATOR / PROFICIENCY LEVEL	1.C.1.b.	Avoid choosing and reporting only the data that show what is expected by the person doing the choosing.
INDICATOR / PROFICIENCY LEVEL	1.C.1.d.	Construct and share reasonable explanations for questions asked.

Maryland College and Career-Ready Standards

Science

Grade 4 - Adopted: 2008

STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.A.1.	Constructing Knowledge: Gather and question data from many different forms of scientific investigations which include reviewing appropriate print resources, observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
INDICATOR / PROFICIENCY LEVEL	1.A.1.e.	Follow directions carefully and keep accurate records of one's work in order to compare data gathered.
STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.B.1.	Applying Evidence and Reasoning: Seek better reasons for believing something than 'Everybody knows that...' or 'I just know' and discount such reasons when given by others.
INDICATOR / PROFICIENCY LEVEL	1.B.1.a.	Develop explanations using knowledge possessed and evidence from observations, reliable print resources, and investigations.
STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.C.1.	Communicating Scientific Information: Recognize that clear communication is an essential part of doing science because it enables scientists to inform others about their work, expose their ideas to criticism by other scientists, and stay informed about scientific discoveries around the world.
INDICATOR / PROFICIENCY LEVEL	1.C.1.b.	Avoid choosing and reporting only the data that show what is expected by the person doing the choosing.
INDICATOR / PROFICIENCY LEVEL	1.C.1.d.	Construct and share reasonable explanations for questions asked.

Maryland College and Career-Ready Standards

Science

Grade 5 - Adopted: 2008

STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.A.1.	Constructing Knowledge: Gather and question data from many different forms of scientific investigations which include reviewing appropriate print resources, observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
INDICATOR / PROFICIENCY LEVEL	1.A.1.e.	Follow directions carefully and keep accurate records of one's work in order to compare data gathered.
STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.B.1.	Applying Evidence and Reasoning: Seek better reasons for believing something than 'Everybody knows that...' or 'I just know' and discount such reasons when given by others.
INDICATOR /	1.B.1.a.	Develop explanations using knowledge possessed and evidence from observations,

PROFICIENCY LEVEL		reliable print resources, and investigations.
STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.C.1.	Communicating Scientific Information: Recognize that clear communication is an essential part of doing science because it enables scientists to inform others about their work, expose their ideas to criticism by other scientists, and stay informed about scientific discoveries around the world.
INDICATOR / PROFICIENCY LEVEL	1.C.1.b.	Avoid choosing and reporting only the data that show what is expected by the person doing the choosing.
INDICATOR / PROFICIENCY LEVEL	1.C.1.d.	Construct and share reasonable explanations for questions asked.
STRAND / TOPIC / STANDARD	MD.6.0.	Environmental Science: Students will use scientific skills and processes to explain the interactions of environmental factors (living and non-living) and analyze their impact from a local to a global perspective.
TOPIC / INDICATOR	6.B.1.	Environmental Issues: Recognize and explain that decisions influencing the use of natural resources may have benefits, drawbacks, unexpected consequences, and tradeoffs.
INDICATOR / PROFICIENCY LEVEL	6.B.1.a.	Identify and describe personal and community behaviors that waste natural resources and/or cause environmental harm and those behaviors that maintain or improve the environment.
INDICATOR / PROFICIENCY LEVEL	6.B.1.b.	Identify and describe that individuals and groups assess and manage risk to the environment differently.
STRAND / TOPIC / STANDARD	MD.6.0.	Environmental Science: Students will use scientific skills and processes to explain the interactions of environmental factors (living and non-living) and analyze their impact from a local to a global perspective.
TOPIC / INDICATOR	6.B.2.	Environmental Issues: Recognize and describe that consequences may occur when Earth's natural resources are used.
INDICATOR / PROFICIENCY LEVEL	6.B.2.a.	Explain how human activities may have positive consequences on the natural environment: Recycling centers; Native plantings; Good farming practice.
INDICATOR / PROFICIENCY LEVEL	6.B.2.c.	Identify and describe that an environmental issue affects individuals and groups differently.

Next Generation Science Standards (NGSS)

Science

Grade 4 - Adopted: 2013

STRAND	NGSS.4-ESS.	EARTH AND SPACE SCIENCE
TITLE	4-ESS3.	Earth and Human Activity
		Students who demonstrate understanding can:
PERFORMANCE EXPECTATION	4-ESS3-1.	Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment.

Next Generation Science Standards (NGSS)

Science

Grade 5 - Adopted: 2013

STRAND	NGSS.5-ESS.	EARTH AND SPACE SCIENCE
TITLE	5-ESS3.	Earth and Human Activity
		Students who demonstrate understanding can:
PERFORMANCE EXPECTATION	5-ESS3-1.	Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.

How we measure energy

Maryland College and Career-Ready Standards

Science

Grade 3 - Adopted: 2008

STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.A.1.	Constructing Knowledge: Gather and question data from many different forms of scientific investigations which include reviewing appropriate print resources, observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
INDICATOR / PROFICIENCY LEVEL	1.A.1.e.	Follow directions carefully and keep accurate records of one's work in order to compare data gathered.
STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.B.1.	Applying Evidence and Reasoning: Seek better reasons for believing something than 'Everybody knows that...' or 'I just know' and discount such reasons when given by others.
INDICATOR / PROFICIENCY LEVEL	1.B.1.a.	Develop explanations using knowledge possessed and evidence from observations, reliable print resources, and investigations.
STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.C.1.	Communicating Scientific Information: Recognize that clear communication is an essential part of doing science because it enables scientists to inform others about their work, expose their ideas to criticism by other scientists, and stay informed about scientific discoveries around the world.
INDICATOR / PROFICIENCY LEVEL	1.C.1.b.	Avoid choosing and reporting only the data that show what is expected by the person doing the choosing.
INDICATOR / PROFICIENCY LEVEL	1.C.1.d.	Construct and share reasonable explanations for questions asked.

Maryland College and Career-Ready Standards

Science

Grade 4 - Adopted: 2008

STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.A.1.	Constructing Knowledge: Gather and question data from many different forms of scientific investigations which include reviewing appropriate print resources, observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
INDICATOR / PROFICIENCY LEVEL	1.A.1.e.	Follow directions carefully and keep accurate records of one's work in order to compare data gathered.
STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.B.1.	Applying Evidence and Reasoning: Seek better reasons for believing something than 'Everybody knows that...' or 'I just know' and discount such reasons when given by others.
INDICATOR / PROFICIENCY LEVEL	1.B.1.a.	Develop explanations using knowledge possessed and evidence from observations, reliable print resources, and investigations.
STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.C.1.	Communicating Scientific Information: Recognize that clear communication is an essential part of doing science because it enables scientists to inform others about their work, expose their ideas to criticism by other scientists, and stay informed about scientific discoveries around the world.
INDICATOR / PROFICIENCY LEVEL	1.C.1.b.	Avoid choosing and reporting only the data that show what is expected by the person doing the choosing.
INDICATOR / PROFICIENCY LEVEL	1.C.1.d.	Construct and share reasonable explanations for questions asked.

Maryland College and Career-Ready Standards

Science

Grade 5 - Adopted: 2008

STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.A.1.	Constructing Knowledge: Gather and question data from many different forms of scientific investigations which include reviewing appropriate print resources, observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
INDICATOR / PROFICIENCY LEVEL	1.A.1.e.	Follow directions carefully and keep accurate records of one's work in order to compare data gathered.
STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.B.1.	Applying Evidence and Reasoning: Seek better reasons for believing something than 'Everybody knows that...' or 'I just know' and discount such reasons when given by others.
INDICATOR / PROFICIENCY LEVEL	1.B.1.a.	Develop explanations using knowledge possessed and evidence from observations, reliable print resources, and investigations.
STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.C.1.	Communicating Scientific Information: Recognize that clear communication is an essential part of doing science because it enables scientists to inform others about their work, expose their ideas to criticism by other scientists, and stay informed about scientific discoveries around the world.
INDICATOR / PROFICIENCY LEVEL	1.C.1.b.	Avoid choosing and reporting only the data that show what is expected by the person doing the choosing.
INDICATOR / PROFICIENCY LEVEL	1.C.1.d.	Construct and share reasonable explanations for questions asked.

Next Generation Science Standards (NGSS)

Science

Grade 4 - Adopted: 2013

STRAND	NGSS.4-PS.	PHYSICAL SCIENCE
TITLE	4-PS3.	Energy
		Students who demonstrate understanding can:
PERFORMANCE EXPECTATION	4-PS3-2.	Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents.

What renewable resources are

Maryland College and Career-Ready Standards

Science

Grade 3 - Adopted: 2008

STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.A.1.	Constructing Knowledge: Gather and question data from many different forms of scientific investigations which include reviewing appropriate print resources, observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
INDICATOR / PROFICIENCY LEVEL	1.A.1.e.	Follow directions carefully and keep accurate records of one's work in order to compare data gathered.
STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.B.1.	Applying Evidence and Reasoning: Seek better reasons for believing something than 'Everybody knows that...' or 'I just know' and discount such reasons when given by others.
INDICATOR / PROFICIENCY LEVEL	1.B.1.a.	Develop explanations using knowledge possessed and evidence from observations, reliable print resources, and investigations.
STRAND / TOPIC	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in

/ STANDARD		the practice of science.
TOPIC / INDICATOR	1.C.1.	Communicating Scientific Information: Recognize that clear communication is an essential part of doing science because it enables scientists to inform others about their work, expose their ideas to criticism by other scientists, and stay informed about scientific discoveries around the world.
INDICATOR / PROFICIENCY LEVEL	1.C.1.b.	Avoid choosing and reporting only the data that show what is expected by the person doing the choosing.
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Maryland College and Career-Ready Standards

Science

Grade 4 - Adopted: 2008

STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.A.1.	Constructing Knowledge: Gather and question data from many different forms of scientific investigations which include reviewing appropriate print resources, observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
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STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.B.1.	Applying Evidence and Reasoning: Seek better reasons for believing something than 'Everybody knows that...' or 'I just know' and discount such reasons when given by others.
INDICATOR / PROFICIENCY LEVEL	1.B.1.a.	Develop explanations using knowledge possessed and evidence from observations, reliable print resources, and investigations.
STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.C.1.	Communicating Scientific Information: Recognize that clear communication is an essential part of doing science because it enables scientists to inform others about their work, expose their ideas to criticism by other scientists, and stay informed about scientific discoveries around the world.
INDICATOR / PROFICIENCY LEVEL	1.C.1.b.	Avoid choosing and reporting only the data that show what is expected by the person doing the choosing.
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Maryland College and Career-Ready Standards

Science

Grade 5 - Adopted: 2008

STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.A.1.	Constructing Knowledge: Gather and question data from many different forms of scientific investigations which include reviewing appropriate print resources, observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
INDICATOR / PROFICIENCY LEVEL	1.A.1.e.	Follow directions carefully and keep accurate records of one's work in order to compare data gathered.
STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.B.1.	Applying Evidence and Reasoning: Seek better reasons for believing something than 'Everybody knows that...' or 'I just know' and discount such reasons when given by others.
INDICATOR / PROFICIENCY LEVEL	1.B.1.a.	Develop explanations using knowledge possessed and evidence from observations, reliable print resources, and investigations.

STRAND / TOPIC / STANDARD	MD.1.0.	Skills and Processes: Students will demonstrate the thinking and acting inherent in the practice of science.
TOPIC / INDICATOR	1.C.1.	Communicating Scientific Information: Recognize that clear communication is an essential part of doing science because it enables scientists to inform others about their work, expose their ideas to criticism by other scientists, and stay informed about scientific discoveries around the world.
INDICATOR / PROFICIENCY LEVEL	1.C.1.b.	Avoid choosing and reporting only the data that show what is expected by the person doing the choosing.
INDICATOR / PROFICIENCY LEVEL	1.C.1.d.	Construct and share reasonable explanations for questions asked.
STRAND / TOPIC / STANDARD	MD.6.0.	Environmental Science: Students will use scientific skills and processes to explain the interactions of environmental factors (living and non-living) and analyze their impact from a local to a global perspective.
TOPIC / INDICATOR	6.A.1.	Natural Resources and Human Needs: Recognize and explain how renewable and nonrenewable natural resources found in Maryland are used by humans to meet basic needs.
INDICATOR / PROFICIENCY LEVEL	6.A.1.a.	Identify and compare Maryland's renewable resources and nonrenewable resources.
INDICATOR / PROFICIENCY LEVEL	6.A.1.b.	Describe how humans use renewable natural resources, such as plants, soil, water, animals.
STRAND / TOPIC / STANDARD	MD.6.0.	Environmental Science: Students will use scientific skills and processes to explain the interactions of environmental factors (living and non-living) and analyze their impact from a local to a global perspective.
TOPIC / INDICATOR	6.B.1.	Environmental Issues: Recognize and explain that decisions influencing the use of natural resources may have benefits, drawbacks, unexpected consequences, and tradeoffs.
INDICATOR / PROFICIENCY LEVEL	6.B.1.a.	Identify and describe personal and community behaviors that waste natural resources and/or cause environmental harm and those behaviors that maintain or improve the environment.
INDICATOR / PROFICIENCY LEVEL	6.B.1.b.	Identify and describe that individuals and groups assess and manage risk to the environment differently.
STRAND / TOPIC / STANDARD	MD.6.0.	Environmental Science: Students will use scientific skills and processes to explain the interactions of environmental factors (living and non-living) and analyze their impact from a local to a global perspective.
TOPIC / INDICATOR	6.B.2.	Environmental Issues: Recognize and describe that consequences may occur when Earth's natural resources are used.
INDICATOR / PROFICIENCY LEVEL	6.B.2.a.	Explain how human activities may have positive consequences on the natural environment: Recycling centers; Native plantings; Good farming practice.
INDICATOR / PROFICIENCY LEVEL	6.B.2.c.	Identify and describe that an environmental issue affects individuals and groups differently.

Next Generation Science Standards (NGSS)

Science

Grade 3 - Adopted: 2013

STRAND	NGSS.3-LS.	LIFE SCIENCE
TITLE	3-LS4.	Biological Evolution: Unity and Diversity
		Students who demonstrate understanding can:
PERFORMANCE EXPECTATION	3-LS4-4.	Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.

Next Generation Science Standards (NGSS)

Science

Grade 4 - Adopted: 2013

STRAND	NGSS.4-ESS.	EARTH AND SPACE SCIENCE
TITLE	4-ESS3.	Earth and Human Activity

		Students who demonstrate understanding can:
PERFORMANCE EXPECTATION	4-ESS3-1.	Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment.

Next Generation Science Standards (NGSS)

Science

Grade 5 - Adopted: 2013

STRAND	NGSS.5-ESS.	EARTH AND SPACE SCIENCE
TITLE	5-ESS3.	Earth and Human Activity
		Students who demonstrate understanding can:
PERFORMANCE EXPECTATION	5-ESS3-1.	Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.

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