

Mission Geography and Vermont
Connecting Mission Geography to State Standards

Grades K-4

Module 1: Exploring our planet from above

Inv.	Geography for Life	State Standard(s) Connection
1	Std 1: Use maps to acquire, process, and report information from a spatial perspective	5.14 (lang) Students interpret and evaluate a variety of types of media, including audio, graphic images, film, television, video, and on-line resources. 6.1 (ss) Students examine complex webs of causes and effects in relation to events in order to generalize about the workings of human societies and they apply their findings to problems. 6.7 (ss) Students use geographical knowledge and images of various places to understand the present, communicate historical interpretations, develop solutions for the problems, and plan for the future. 7.1 (sci) Students use scientific methods to describe, investigate, explain phenomena, and raise questions in order to: generate alternative explanations-hypotheses-based on observations and prior knowledge; design inquiry that allows these explanations to be tested; deduce the expected results; gather and analyze data to compare the actual results to the expected outcomes; and make and communicate conclusions, generating new questions raised by observations and readings. 7.5 (sci) Students analyze the roles and responsibilities of scientists, mathematicians, and technologists, in social, economic, cultural, and political systems.
2	Std 1: Use maps to acquire, process, and report information from a spatial perspective	see above
3	Std 1: Use maps to acquire, process, and report information from a spatial perspective	see above
4	Std 1: Use maps to acquire, process, and report information from a spatial perspective	see above
	Std 8: Characteristics and spatial distribution of ecosystems	see above

Module 2: Water, water almost everywhere

Inv	Geography for Life	State Standard(s) Connection
1	Std 1: Use maps to acquire, process, and report information from a spatial perspective	6.2 (ss) Students understand the varied uses of evidence and data, and use both to make interpretations concerning public issues. 6.8 (ss) Students analyze the factors and implication associated with the historical and contemporary movement and settlement of people and groups in various in their local community, in VT., in the U.S., and in various locations worldwide. 7.1 (sci) Students use scientific methods to describe, investigate, explain phenomena, and raise questions in order to: generate alternative explanations-hypotheses-based on observations and prior knowledge; design inquiry that allows these explanations to be tested; deduce the expected results; gather and analyze data to compare the actual results to the expected outcomes; and make and communicate conclusions, generating new questions raised by observations and readings. 7.15 (sci) Students demonstrate understanding of the Earth and its environment, the solar system, and the universe in terms of the systems that characterize them, the forces that effect and shape them over time, and the theories that currently explain their evolution.
	Std 7: Physical processes that shape Earth	see above
	Std 3: Analyze spatial organization of people, places, environments	see above
2	Std 1: Use maps to acquire, process, and report information from a spatial perspective	see above
	Std 4: Physical and human characteristics of places	see above
3	Std 2: Use mental maps to organize information about people, places, environments	see above
	Std 7: Physical processes that shape Earth	see above
4	Std 7: Physical processes that shape Earth	see above
	Std 18: Apply geography to interpret the present and plan for the future	see above

Module 3: Where on Earth do humans live?

Inv	Geography for Life	State Standard(s) Connection
1	Std 1: Use maps to acquire, process, and report information from a spatial perspective	6.1(ss) Students examine complex webs of causes and effects in relation to events in order to generalize about the workings of human societies and they apply their findings to problems. 6.2(ss) Students understand the varied uses of evidence and data, and use both to make interpretations concerning public issues. 7.5 (sci) Students analyze the roles and responsibilities of scientists, mathematicians, and technologists, in social, economic, cultural, and political systems. 7.15 (sci) Students demonstrate understanding of the Earth and its environment, the solar system, and the universe in terms of the systems that characterize them, the forces that effect and shape them over time, and the theories that currently explain their evolution.
	Std 4: Physical and human characteristics of places	see above
2	Std 1: Use maps to acquire, process, and report information from a spatial perspective	see above
	Std 4: Physical and human characteristics of places	see above
3	Std 2: Use mental maps to organize information about people, places, environments	see above
	Std 17: How to apply geography to interpret the past	see above
4	Std 1: Use maps to acquire, process, and report information from a spatial perspective	see above
	Std 4: Physical and human characteristics of places	see above

Module 4: Paths

Inv	Geography for Life	State Standard(s) Connection
1	Std 1: Use maps to acquire, process, and report information from a spatial perspective	5.14 (lang) Students interpret and evaluate a variety of types of media, including audio, graphic images, film, television, video, and on-line resources. 6.1(ss) Students examine complex webs of causes and effects in relation to events in order to generalize about the workings of human societies and they apply their findings to problems. 6.2(ss) Students understand the varied uses of evidence and data, and use both to make interpretations concerning public issues. 6.4(ss) Students identify major historical eras and analyze periods of transition in various times in their local community, in VT., in the U.S., and in various locations worldwide to understand the past, the present, and the relationship between the two. 7.3 (sci) Students understand the nature of mathematical, scientific, and technological theory.
	Std 14: Human actions modify the physical environment	see above
2	Std 2: Use mental maps to organize information about people, places, environments	see above
	Std 14: Human actions modify the physical environment	see above
3	Std 1: Use maps to acquire, process, and report information from a spatial perspective	see above
	Std 15: How physical systems affect human systems	see above
4	Std 15: How physical systems affect human systems	see above
	Std 18: Apply geography to interpret the present and plan for the future	see above

Grades 5-8

Module 1: Volcanoes—local hazard, global issue

Inv	Geography for Life	State Standard(s) Connection
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1	Std 15: How physical systems affect human systems	<p>5.14 (lang) Students interpret and evaluate a variety of types of media, including audio, graphic images, film, television, video, and on-line resources.</p> <p>6.1 (ss) Students examine complex webs of causes and effects in relation to events in order to generalize about the workings of human societies and they apply their findings to problems.</p> <p>6.2 (ss) Students understand the varied uses of evidence and data, and use both to make interpretations concerning public issues.</p> <p>6.7 (ss) Students use geographical knowledge and images of various places to understand the present, communicate historical interpretations, develop solutions for the problems, and plan for the future.</p> <p>7.1 (sci) Students use scientific methods to describe, investigate, explain phenomena, and raise questions in order to: generate alternative explanations-hypotheses-based on observations and prior knowledge; design inquiry that allows these explanations to be tested; deduce the expected results; gather and analyze data to compare the actual results to the expected outcomes; and make and communicate conclusions, generating new questions raised by observations and readings.</p> <p>7.9 (sci) Students use statistics and probability concepts.</p> <p>7.10 (sci) Students use concrete, formal, and informal strategies to solve mathematical problems, apply the process of mathematical modeling, and extend and generalize mathematical concepts. Students apply mathematics as they solve scientific and technological problems or work with technological systems.</p> <p>7.11 (sci) Students analyze and understand living and non-living systems as collections of interrelated parts and interconnected systems.</p> <p>7.15 (sci) Students demonstrate understanding of the Earth and its environment, the solar system, and the universe in terms of the systems that characterize them, the forces that effect and shape them over time, and the theories that currently explain their evolution.</p> <p>7.17 (sci) Students apply knowledge and understanding of technological systems to respond to a variety of issues.</p> <p>7.18 (sci) Students understand that people control the outputs and impacts of our expanding technological activities in the areas of communication, construction, manufacturing, power and transportation, energy sources, health technology, and bio-technology.</p> <p>7.19 (sci) Students use technological/engineering processes to design solutions to problems.</p>
	Std 7: Physical processes that shape Earth	see above
	Std 3: Analyze spatial organization of people, places, environments	see above

2	Std 1: Use maps to acquire, process, and report information from a spatial perspective	see above
	Std 3: Analyze spatial organization of people, places, environments	see above
	Std 7: Physical processes that shape Earth	see above
3	Std 1: Use maps to acquire, process, and report information from a spatial perspective	see above
	Std 15: How physical systems affect human systems	see above
	Std 18: Apply geography to interpret the present and plan for the future	see above

Module 2: Mars and Earth—the quest for life

Inv	Geography for Life	State Standard(s) Connection
1	Std 1: Use maps to acquire, process, and report information from a spatial perspective	<p>5.14 (lang) Students interpret and evaluate a variety of types of media, including audio, graphic images, film, television, video, and on-line resources.</p> <p>6.2 (ss) Students understand the varied uses of evidence and data, and use both to make interpretations concerning public issues.</p> <p>6.7 (ss) Students use geographical knowledge and images of various places to understand the present, communicate historical interpretations, develop solutions for the problems, and plan for the future.</p> <p>6.8 (ss) Students analyze the factors and implication associated with the historical and contemporary movement and settlement of people and groups in various in their local community, in VT., in the U.S., and in various locations worldwide.</p> <p>7.1 (sci) Students use scientific methods to describe, investigate, explain phenomena, and raise questions in order to: generate alternative explanations-hypotheses-based on observations and prior knowledge; design inquiry that allows these explanations to be tested; deduce the expected results; gather and analyze data to compare the actual results to the expected outcomes; and make and communicate conclusions, generating new questions raised by observations and readings.</p> <p>7.2 (sci) Students design and conduct a variety of their own investigations and projects. These should include: questions that can be studied using the resources available; data that are recorded and collected in ways that others can verify; data and results that are represented in ways that address the question at hand; recommendation, decisions, and conclusions that are based on evidence and that acknowledge references and contributions of others.</p> <p>7.11 (sci) Students analyze and understand living and non-living systems as collections of interrelated parts and interconnected systems.</p> <p>7.17(sci) Students apply knowledge and understanding of technological systems to respond to a variety of issues.</p>
	Std 3: Analyze spatial organization of people, places, environments	see above
2	Std 1: Use maps to acquire, process, and report information from a spatial perspective	see above
	Std 3: Analyze spatial organization of people, places, environments	see above
3	Std 4: Physical and human characteristics of places	see above
	Std 7: Physical processes that shape Earth	see above
4	Std 4: Physical and human characteristics of places	see above

	Std 18: Apply geography to interpret the present and plan for the future	see above
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Module 3: Human footprints on Earth as seen by NASA scientists

Inv	Geography for Life	State Standard(s) Connection
1	Std 11: Patterns and networks of economic interdependence on Earth	<p>5.14 (lang) Students interpret and evaluate a variety of types of media, including audio, graphic images, film, television, video, and on-line resources.</p> <p>6.1 (ss) Students examine complex webs of causes and effects in relation to events in order to generalize about the workings of human societies and they apply their findings to problems.</p> <p>6.3 (ss) Students understand the varied uses of evidence and data, and use both to make interpretations concerning public issues.</p> <p>6.7 (ss) Students use geographical knowledge and images of various places to understand the present, communicate historical interpretations, develop solutions for the problems, and plan for the future.</p> <p>7.1 (sci) Students use scientific methods to describe, investigate, explain phenomena, and raise questions in order to: generate alternative explanations-hypotheses-based on observations and prior knowledge; design inquiry that allows these explanations to be tested; deduce the expected results; gather and analyze data to compare the actual results to the expected outcomes; and make and communicate conclusions, generating new questions raised by observations and readings.</p> <p>7.9 (sci) Students use statistics and probability concepts.</p> <p>7.10 (sci) Students use concrete, formal, and informal strategies to solve mathematical problems, apply the process of mathematical modeling, and extend and generalize mathematical concepts. Students apply mathematics as they solve scientific and technological problems or work with technological systems.</p> <p>7.11(sci) Students analyze and understand living and non-living systems as collections of interrelated parts and interconnected systems.</p> <p>7.17(sci) Students apply knowledge and understanding of technological systems to respond to a variety of issues.</p>
2	Std 14: Human actions modify the physical environment	see above
3	Std 12: Processes, patterns, and functions of human settlement	see above
	Std 14: Human actions modify the physical environment	see above

	Std 18: Apply geography to interpret the present and plan for the future	see above
4	Std 4: Physical and human characteristics of places	see above
	Std 14: Human actions modify the physical environment	see above
	Std 15: How physical systems affect human systems	see above

Module 4: Remote sensing and geoarchaeology

Inv	Geography for Life	State Standard(s) Connection
1	Std 1: Use maps to acquire, process, and report information from a spatial perspective	<p>5.14 (lang) Students interpret and evaluate a variety of types of media, including audio, graphic images, film, television, video, and on-line resources.</p> <p>6.1 (ss) Students examine complex webs of causes and effects in relation to events in order to generalize about the workings of human societies and they apply their findings to problems.</p> <p>6.2 (ss) Students understand the varied uses of evidence and data, and use both to make interpretations concerning public issues.</p> <p>6.4(ss) Students identify major historical eras and analyze periods of transition in various times in their local community, in VT., in the U.S., and in various locations</p> <p>6.7 (ss) Students use geographical knowledge and images of various places to understand the present, communicate historical interpretations, develop solutions for the problems, and plan for the future.</p> <p>6.8 (ss) Students analyze the factors and implication associated with the historical and contemporary movement and settlement of people and groups in various in their local community, in VT., in the U.S., and in various locations worldwide.</p> <p>7.3 (sci) Students understand the nature of mathematical, scientific, and technological theory.</p> <p>7.4 (sci) Students understand the history of science, math, and technology.</p>
	Std 16: Meaning, use, distribution, and importance of resources	see above
2	Std 1: Use maps to acquire, process, and report information from a spatial perspective	see above
3	Std 1: Use maps to acquire, process, and report information from a spatial perspective	see above
	Std 4: Physical and human characteristics of places	see above

Grades 9-12

Module 1: What's up with Earth's water resources?

Inv	Geography for Life	State Standard(s) Connection
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1	Std 1: Use maps to acquire, process, and report information from a spatial perspective	<p>5.14 (lang) Students interpret and evaluate a variety of types of media, including audio, graphic images, film, television, video, and on-line resources.</p> <p>6.1 (ss) Students examine complex webs of causes and effects in relation to events in order to generalize about the workings of human societies and they apply their findings to problems.</p> <p>6.2 (ss) Students understand the varied uses of evidence and data, and use both to make interpretations concerning public issues.</p> <p>6.3 (ss) Students analyze knowledge as a collection of selected facts and interpretations based on a particular historical or social setting.</p> <p>6.6 (ss) Students make historical interpretations concerning history, change, and continuity.</p> <p>6.7 (ss) Students use geographical knowledge and images of various places to understand the present, communicate historical interpretations, develop solutions for the problems, and plan for the future.</p> <p>6.9 (ss) Students analyze the factors and implication associated with the historical and contemporary movement and settlement of people and groups in various in their local community, in VT., in the U.S., and in various locations worldwide.</p> <p>6.15 (ss) Students use the basic principles of economics to interpret local, state, national, and international economic activity.</p> <p>6.16 (ss) Students evaluate the impact of economic systems on the needs and wants of all people, and on the environment in various times in their local community, in VT, in the US, and in various locations worldwide.</p> <p>7.1 (sci) Students use scientific methods to describe, investigate, explain phenomena, and raise questions in order to: generate alternative explanations-hypotheses-based on observations and prior knowledge; design inquiry that allows these explanations to be tested; deduce the expected results; gather and analyze data to compare the actual results to the expected outcomes; and make and communicate conclusions, generating new questions raised by observations and readings.</p> <p>7.10 (math) Students use concrete, formal, and informal strategies to solve mathematical problems, apply the process of mathematical modeling, and extend and generalize mathematical concepts. Students apply mathematics as they solve scientific and technological problems or work with technological systems.</p> <p>7.11(sci) Students analyze and understand living and non-living systems as collections of interrelated parts and interconnected systems.</p> <p>7.13(sci) Students recognize the interdependence of all systems that support life.</p> <p>7.16 (sci) Students understand how natural resources are extracted, distributed, processed, and disposed of.</p> <p>7.17(sci) Students apply knowledge and understanding of technological systems to respond to a variety of issues.</p> <p>7.18 (sci) Students understand that people control the outputs and impacts of our expanding technological activities in the areas of communication, construction, manufacturing, power and transportation, energy sources, health technology, and bio-technology.</p>
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	Std 8: Characteristics and spatial distribution of ecosystems	see above
	Std 14: Human actions modify the physical environment	see above
2	Std 4: Physical and human characteristics of places	see above
	Std 7: Physical processes that shape Earth	see above
	Std 14: Human actions modify the physical environment	see above
	Std 15: How physical systems affect human systems	see above
3	Std 1: Use maps to acquire, process, and report information from a spatial perspective	see above
	Std 14: Human actions modify the physical environment	see above
	Std 15: How physical systems affect human systems	see above
4	Std 7: Physical processes that shape Earth	see above
	Std 15: How physical systems affect human systems	see above
	Std 18: Apply geography to interpret the present and plan for the future	see above

Module 2: Where will your next meal come from?

Inv	Geography for Life	State Standard(s) Connection
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1	Std 14: Human actions modify the physical environment	<p>6.1 (ss) Students examine complex webs of causes and effects in relation to events in order to generalize about the workings of human societies and they apply their findings to problems.</p> <p>6.2 (ss) Students understand the varied uses of evidence and data, and use both to make interpretations concerning public issues.</p> <p>6.3 (ss) Students analyze knowledge as a collection of selected facts and interpretations based on a particular historical or social setting.</p> <p>6.6 (ss) Students make historical interpretations concerning history, change, and continuity.</p> <p>6.7 (ss) Students use geographical knowledge and images of various places to understand the present, communicate historical interpretations, develop solutions for the problems, and plan for the future.</p> <p>6.10(ss) Students analyze the factors and implication associated with the historical and contemporary movement and settlement of people and groups in various in their local community, in VT., in the U.S., and in various locations worldwide.</p> <p>6.15 (ss) Students use the basic principles of economics to interpret local, state, national, and international economic activity.</p> <p>6.16 (ss) Students evaluate the impact of economic systems on the needs and wants of all people, and on the environment in various times in their local community, in VT, in the US, and in various locations worldwide.</p> <p>7.1 (sci) Students use scientific methods to describe, investigate, explain phenomena, and raise questions in order to: generate alternative explanations-hypotheses-based on observations and prior knowledge; design inquiry that allows these explanations to be tested; deduce the expected results; gather and analyze data to compare the actual results to the expected outcomes; and make and communicate conclusions, generating new questions raised by observations and readings.</p> <p>7.11(sci) Students analyze and understand living and non-living systems as collections of interrelated parts and interconnected systems.</p> <p>7.5 (sci) Students analyze the roles and responsibilities of scientists, mathematicians, and technologists, in social, economic, cultural, and political systems.</p> <p>7.10 (math) Students use concrete, formal, and informal strategies to solve mathematical problems, apply the process of mathematical modeling, and extend and generalize mathematical concepts. Students apply mathematics as they solve scientific and technological problems or work with technological systems.</p> <p>7.11(sci) Students analyze and understand living and non-living systems as collections of interrelated parts and interconnected systems.</p> <p>7.13(sci) Students recognize the interdependence of all systems that support life.</p> <p>7.16 (sci) Students understand how natural resources are extracted, distributed, processed, and disposed of.</p> <p>7.17(sci) Students apply knowledge and understanding of technological systems to respond to a variety of issues.</p> <p>7.18 (sci) Students understand that people control the outputs and impacts of our expanding technological activities in the areas of communication, construction, manufacturing, power and transportation, energy sources, health technology, and biotechnology.</p>
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	Std 15: How physical systems affect human systems	see above
	Std 16: Meaning, use, distribution, and importance of resources	see above
2	Std 1: Use maps to acquire, process, and report information from a spatial perspective	see above
	Std 14: Human actions modify the physical environment	see above
	Std 18: Apply geography to interpret the present and plan for the future	see above
3	Std 1: Use maps to acquire, process, and report information from a spatial perspective	see above
	Std 5: Regions interpret Earth's complexity	see above
	Std 9: Characteristics, distribution and migration of humans	see above
	Std 14: Human actions modify the physical environment	see above

Module 3: What are the causes and consequences of climate change?

Inv	Geography for Life	State Standard(s) Connection
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1	Std 1: Use maps to acquire, process, and report information from a spatial perspective	<p>6.1 (ss) Students examine complex webs of causes and effects in relation to events in order to generalize about the workings of human societies and they apply their findings to problems.</p> <p>6.2 (ss) Students understand the varied uses of evidence and data, and use both to make interpretations concerning public issues.</p> <p>6.3 (ss) Students analyze knowledge as a collection of selected facts and interpretations based on a particular historical or social setting.</p> <p>6.6 (ss) Students make historical interpretations concerning history, change, and continuity.</p> <p>6.7 (ss) Students use geographical knowledge and images of various places to understand the present, communicate historical interpretations, develop solutions for the problems, and plan for the future.</p> <p>6.15 (ss) Students use the basic principles of economics to interpret local, state, national, and international economic activity.</p> <p>6.16 (ss) Students evaluate the impact of economic systems on the needs and wants of all people, and on the environment in various times in their local community, in VT, in the US, and in various locations worldwide.</p> <p>7.1 (sci) Students use scientific methods to describe, investigate, explain phenomena, and raise questions in order to: generate alternative explanations-hypotheses-based on observations and prior knowledge; design inquiry that allows these explanations to be tested; deduce the expected results; gather and analyze data to compare the actual results to the expected outcomes; and make and communicate conclusions, generating new questions raised by observations and readings.</p> <p>7.3 (sci) Students understand the nature of mathematical, scientific, and technological theory.</p> <p>7.5 (sci) Students analyze the roles and responsibilities of scientists, mathematicians, and technologists, in social, economic, cultural, and political systems.</p> <p>7.9 (sci) Students use statistics and probability concepts.</p> <p>7.10 (math) Students use concrete, formal, and informal strategies to solve mathematical problems, apply the process of mathematical modeling, and extend and generalize mathematical concepts. Students apply mathematics as they solve scientific and technological problems or work with technological systems.</p> <p>7.11(sci) Students analyze and understand living and non-living systems as collections of interrelated parts and interconnected systems.</p> <p>7.13(sci) Students recognize the interdependence of all systems that support life.</p> <p>7.15 (sci) Students demonstrate understanding of the Earth and its environment, the solar system, and the universe in terms of the systems that characterize them, the forces that effect and shape them over time, and the theories that currently explain their evolution.</p> <p>7.16 (sci) Students understand how natural resources are extracted, distributed, processed, and disposed of.</p> <p>7.17(sci) Students apply knowledge and understanding of technological systems to respond to a variety of issues.</p> <p>7.18 (sci) Students understand that people control the outputs and impacts of our expanding technological activities in the areas of communication, construction,</p>
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	Std 7: Physical processes that shape Earth	see above
	Std 15: How physical systems affect human systems	see above
	Std 18: Apply geography to interpret the present and plan for the future	see above
2	Std 7: Physical processes that shape Earth	see above
	Std 10 Characteristics, distribution, and complexity of Earth's cultural mosaics	see above
	Std 14: Human actions modify the physical environment	see above
	Std 15: How physical systems affect human systems	see above
3	Std 1: Use maps to acquire, process, and report information from a spatial perspective	see above
	Std 7: Physical processes that shape Earth	see above
	Std 14: Human actions modify the physical environment	see above
	Std 15: How physical systems affect human systems	see above