Canada: Coast to Coast
National Standards
NCSS, NGS, NGSS

Main Criteria: Virtual Field Trips
Secondary Criteria: National Council for the Social Studies (NCSS)
Subject: Social Studies
Grades: 4, 5, 6

Virtual Field Trips

Canada: Coast to Coast

National Council for the Social Studies (NCSS)
Social Studies

Grade **4** - Adopted: **2010**

THEME	**NCSS.2.**	**TIME, CONTINUITY, AND CHANGE**
DEFINITION		**SOCIAL STUDIES PROGRAMS SHOULD INCLUDE EXPERIENCES THAT PROVIDE FOR THE STUDY OF THE PAST AND ITS LEGACY.**
CATEGORY	**2.1.**	**KNOWLEDGE - Learners will understand:**
LEARNING EXPECTATION	**2.1.1.**	**The study of the past is the story of communities, nations, and the world.**
LEARNING EXPECTATION	**2.1.2.**	**Key concepts such as: past, present, future, similarity, difference, and change.**
LEARNING EXPECTATION	**2.1.4.**	**Key people, events, and places associated with the history of the community, nation, and world.**
LEARNING EXPECTATION	**2.1.6.**	**That people view and interpret historical events differently because of the times in which they live, the experiences they have, and the point of view they hold.**
LEARNING EXPECTATION	**2.1.7.**	**That historical events occurred in times that differed from our own, but often have lasting consequences for the present and future.**
THEME	**NCSS.2.**	**TIME, CONTINUITY, AND CHANGE**
DEFINITION		**SOCIAL STUDIES PROGRAMS SHOULD INCLUDE EXPERIENCES THAT PROVIDE FOR THE STUDY OF THE PAST AND ITS LEGACY.**
CATEGORY	**2.2.**	**PROCESSES - Learners will be able to:**
LEARNING EXPECTATION	**2.2.2.**	**Use a variety of sources to learn about the past.**
LEARNING EXPECTATION	**2.2.4.**	**Describe examples of cause-effect relationships.**
THEME	**NCSS.3.**	**PEOPLE, PLACES, AND ENVIRONMENTS**
DEFINITION		**SOCIAL STUDIES PROGRAMS SHOULD INCLUDE EXPERIENCES THAT PROVIDE FOR THE STUDY OF PEOPLE, PLACES, AND ENVIRONMENTS.**
CATEGORY	**3.1.**	**KNOWLEDGE - Learners will understand:**
LEARNING EXPECTATION	**3.1.1.**	**The theme of people, places, and environments involves the study of location, place, and the interactions of people with their surroundings.**
LEARNING EXPECTATION	**3.1.2.**	**Concepts such as: location, direction, distance, and scale.**
LEARNING EXPECTATION	**3.1.4.**	**Factors influencing various community, state, and regional patterns of human settlement, such as the availability of land and water, and places for people to live.**
LEARNING EXPECTATION	**3.1.5.**	**Physical changes in community, state, and region, such as seasons, climate, and weather, and their effects on plants and animals.**

LEARNING EXPECTATION	3.1.9.	Tools such as maps, globes, and geospatial technologies in investigating the relationships among people, places, and environments.
THEME	NCSS.3.	PEOPLE, PLACES, AND ENVIRONMENTS
DEFINITION		SOCIAL STUDIES PROGRAMS SHOULD INCLUDE EXPERIENCES THAT PROVIDE FOR THE STUDY OF PEOPLE, PLACES, AND ENVIRONMENTS.
CATEGORY	3.2.	PROCESSES - Learners will be able to:
LEARNING EXPECTATION	3.2.1.	Ask and find answers to geographic questions related to the school, community, state, region, and world.
LEARNING EXPECTATION	3.2.2.	Investigate relationships among people, places, and environments in the school, community, state, region, and world through the use of atlases, data bases, charts, graphs, maps, and geospatial technologies.
LEARNING EXPECTATION	3.2.3.	Gather and interpret information from various representations of Earth, such as maps, globes, geospatial technologies and other geographic tools to inform the study of people, places, and environments, both past and present.
THEME	NCSS.3.	PEOPLE, PLACES, AND ENVIRONMENTS
DEFINITION		SOCIAL STUDIES PROGRAMS SHOULD INCLUDE EXPERIENCES THAT PROVIDE FOR THE STUDY OF PEOPLE, PLACES, AND ENVIRONMENTS.
CATEGORY	3.3.	PRODUCTS - Learners demonstrate understanding by:
LEARNING EXPECTATION	3.3.1.	Creating illustrations and composing answers to geographic questions about people, places, and environments.
THEME	NCSS.9.	GLOBAL CONNECTIONS
DEFINITION		SOCIAL STUDIES PROGRAMS SHOULD INCLUDE EXPERIENCES THAT PROVIDE FOR THE STUDY OF GLOBAL CONNECTIONS AND INTERDEPENDENCE.
CATEGORY	9.2.	PROCESSES - Learners will be able to:
LEARNING EXPECTATION	9.2.3.	Use maps and databases to look for global patterns, trends, and connections.

National Council for the Social Studies (NCSS)

Social Studies

Grade **5** - Adopted: **2010**

THEME	NCSS.2.	TIME, CONTINUITY, AND CHANGE
DEFINITION		SOCIAL STUDIES PROGRAMS SHOULD INCLUDE EXPERIENCES THAT PROVIDE FOR THE STUDY OF THE PAST AND ITS LEGACY.
CATEGORY	2.1.	KNOWLEDGE - Learners will understand:
LEARNING EXPECTATION	2.1.1.	The study of the past provides a representation of the history of communities, nations, and the world.
LEARNING EXPECTATION	2.1.2.	Concepts such as: chronology, causality, change, conflict, complexity, multiple perspectives, primary and secondary sources, and cause and effect.
LEARNING EXPECTATION	2.1.3.	That learning about the past requires the interpretation of sources, and that using varied sources provides the potential for a more balanced interpretive record of the past.
LEARNING EXPECTATION	2.1.4.	That historical interpretations of the same event may differ on the basis of such factors as conflicting evidence from varied sources, national or cultural perspectives, and the point of view of the researcher.
LEARNING EXPECTATION	2.1.5.	Key historical periods and patterns of change within and across cultures (e.g., the rise and fall of ancient civilizations, the development of technology, the rise of modern nation-states, and the establishment and breakdown of colonial systems).
LEARNING EXPECTATION	2.1.7.	The contributions of key persons, groups, and events from the past and their influence on the present.
LEARNING EXPECTATION	2.1.9.	The influences of social, geographic, economic, and cultural factors an the history of local areas, states, nations, and the world.
THEME	NCSS.2.	TIME, CONTINUITY, AND CHANGE
DEFINITION		SOCIAL STUDIES PROGRAMS SHOULD INCLUDE EXPERIENCES THAT PROVIDE FOR THE STUDY OF THE PAST AND ITS LEGACY.
CATEGORY	2.2.	PROCESSES - Learners will be able to:

LEARNING EXPECTATION	2.2.2.	Identify and use a variety of primary and secondary sources for reconstructing the past, such as documents, letters, diaries, maps, textbooks, photos, and other sources.
LEARNING EXPECTATION	2.2.3.	Research and analyze past periods, events, and issues, using a variety of primary sources (e.g., documents, letters, artifacts, and testimony) as well as secondary sources; validate and weigh evidence for claims, and evaluate the usefulness and degree of reliability of sources to develop a supportable interpretation.
THEME	NCSS.3.	PEOPLE, PLACES, AND ENVIRONMENTS
DEFINITION		SOCIAL STUDIES PROGRAMS SHOULD INCLUDE EXPERIENCES THAT PROVIDE FOR THE STUDY OF PEOPLE, PLACES, AND ENVIRONMENTS.
CATEGORY	3.1.	KNOWLEDGE - Learners will understand:
LEARNING EXPECTATION	3.1.1.	The theme of people, places, and environments involves the study of the relationships between human populations in different locations and geographic phenomena such as climate, vegetation, and natural resources.
LEARNING EXPECTATION	3.1.2.	Concerts such as: location, region, place, and migration, as well as human and physical systems.
LEARNING EXPECTATION	3.1.3.	Past and present changes in physical systems, such as seasons, climate, and weather, and the water cycle, in both national and global contexts.
LEARNING EXPECTATION	3.1.5.	The concept of regions identifies links between people in different locations according to specific criteria (e.g., physical, economic, social, cultural, or religious).
LEARNING EXPECTATION	3.1.9.	The use of a variety of maps, globes, graphic representations, and geospatial technologies to help investigate the relationships among people, places, and environments.
THEME	NCSS.3.	PEOPLE, PLACES, AND ENVIRONMENTS
DEFINITION		SOCIAL STUDIES PROGRAMS SHOULD INCLUDE EXPERIENCES THAT PROVIDE FOR THE STUDY OF PEOPLE, PLACES, AND ENVIRONMENTS.
CATEGORY	3.2.	PROCESSES - Learners will be able to:
LEARNING EXPECTATION	3.2.1.	Ask and find answers to geographic questions related to regions, nations, and the world in the past and present.
LEARNING EXPECTATION	3.2.2.	Research, organize, analyze, synthesize, and evaluate information from atlases, data bases, grid systems, charts, graphs, maps, geospatial technologies, and other tools to interpret relationships among geographic factors and historic events.

National Council for the Social Studies (NCSS)

Social Studies

Grade **6** - Adopted: **2010**

THEME	NCSS.2.	TIME, CONTINUITY, AND CHANGE
DEFINITION		SOCIAL STUDIES PROGRAMS SHOULD INCLUDE EXPERIENCES THAT PROVIDE FOR THE STUDY OF THE PAST AND ITS LEGACY.
CATEGORY	2.1.	KNOWLEDGE - Learners will understand:
LEARNING EXPECTATION	2.1.1.	The study of the past provides a representation of the history of communities, nations, and the world.
LEARNING EXPECTATION	2.1.2.	Concepts such as: chronology, causality, change, conflict, complexity, multiple perspectives, primary and secondary sources, and cause and effect.
LEARNING EXPECTATION	2.1.3.	That learning about the past requires the interpretation of sources, and that using varied sources provides the potential for a more balanced interpretive record of the past.
LEARNING EXPECTATION	2.1.4.	That historical interpretations of the same event may differ on the basis of such factors as conflicting evidence from varied sources, national or cultural perspectives, and the point of view of the researcher.
LEARNING EXPECTATION	2.1.5.	Key historical periods and patterns of change within and across cultures (e.g., the rise and fall of ancient civilizations, the development of technology, the rise of modern nation-states, and the establishment and breakdown of colonial systems).
LEARNING EXPECTATION	2.1.7.	The contributions of key persons, groups, and events from the past and their influence on the present.
LEARNING EXPECTATION	2.1.9.	The influences of social, geographic, economic, and cultural factors an the history of local areas, states, nations, and the world.
THEME	NCSS.2.	TIME, CONTINUITY, AND CHANGE

DEFINITION		SOCIAL STUDIES PROGRAMS SHOULD INCLUDE EXPERIENCES THAT PROVIDE FOR THE STUDY OF THE PAST AND ITS LEGACY.
CATEGORY	2.2.	PROCESSES - Learners will be able to:
LEARNING EXPECTATION	2.2.2.	Identify and use a variety of primary and secondary sources for reconstructing the past, such as documents, letters, diaries, maps, textbooks, photos, and other sources.
LEARNING EXPECTATION	2.2.3.	Research and analyze past periods, events, and issues, using a variety of primary sources (e.g., documents, letters, artifacts, and testimony) as well as secondary sources; validate and weigh evidence for claims, and evaluate the usefulness and degree of reliability of sources to develop a supportable interpretation.
THEME	NCSS.3.	PEOPLE, PLACES, AND ENVIRONMENTS
DEFINITION		SOCIAL STUDIES PROGRAMS SHOULD INCLUDE EXPERIENCES THAT PROVIDE FOR THE STUDY OF PEOPLE, PLACES, AND ENVIRONMENTS.
CATEGORY	3.1.	KNOWLEDGE - Learners will understand:
LEARNING EXPECTATION	3.1.1.	The theme of people, places, and environments involves the study of the relationships between human populations in different locations and geographic phenomena such as climate, vegetation, and natural resources.
LEARNING EXPECTATION	3.1.2.	Concerts such as: location, region, place, and migration, as well as human and physical systems.
LEARNING EXPECTATION	3.1.3.	Past and present changes in physical systems, such as seasons, climate, and weather, and the water cycle, in both national and global contexts.
LEARNING EXPECTATION	3.1.5.	The concept of regions identifies links between people in different locations according to specific criteria (e.g., physical, economic, social, cultural, or religious).
LEARNING EXPECTATION	3.1.9.	The use of a variety of maps, globes, graphic representations, and geospatial technologies to help investigate the relationships among people, places, and environments.
THEME	NCSS.3.	PEOPLE, PLACES, AND ENVIRONMENTS
DEFINITION		SOCIAL STUDIES PROGRAMS SHOULD INCLUDE EXPERIENCES THAT PROVIDE FOR THE STUDY OF PEOPLE, PLACES, AND ENVIRONMENTS.
CATEGORY	3.2.	PROCESSES - Learners will be able to:
LEARNING EXPECTATION	3.2.1.	Ask and find answers to geographic questions related to regions, nations, and the world in the past and present.
LEARNING EXPECTATION	3.2.2.	Research, organize, analyze, synthesize, and evaluate information from atlases, data bases, grid systems, charts, graphs, maps, geospatial technologies, and other tools to interpret relationships among geographic factors and historic events.

Main Criteria: Virtual Field Trips
Secondary Criteria: National Council for the Social Studies (NCSS)
Subject: Social Studies
Grades: 7, 8

Virtual Field Trips

Canada: Coast to Coast

National Council for the Social Studies (NCSS)
Social Studies

Grade **7** - Adopted: **2010**

THEME	NCSS.2.	TIME, CONTINUITY, AND CHANGE
DEFINITION		SOCIAL STUDIES PROGRAMS SHOULD INCLUDE EXPERIENCES THAT PROVIDE FOR THE STUDY OF THE PAST AND ITS LEGACY.
CATEGORY	2.1.	KNOWLEDGE - Learners will understand:

LEARNING EXPECTATION	2.1.1.	The study of the past provides a representation of the history of communities, nations, and the world.
LEARNING EXPECTATION	2.1.2.	Concepts such as: chronology, causality, change, conflict, complexity, multiple perspectives, primary and secondary sources, and cause and effect.
LEARNING EXPECTATION	2.1.3.	That learning about the past requires the interpretation of sources, and that using varied sources provides the potential for a more balanced interpretive record of the past.
LEARNING EXPECTATION	2.1.4.	That historical interpretations of the same event may differ on the basis of such factors as conflicting evidence from varied sources, national or cultural perspectives, and the point of view of the researcher.
LEARNING EXPECTATION	2.1.5.	Key historical periods and patterns of change within and across cultures (e.g., the rise and fall of ancient civilizations, the development of technology, the rise of modern nation-states, and the establishment and breakdown of colonial systems).
LEARNING EXPECTATION	2.1.7.	The contributions of key persons, groups, and events from the past and their influence on the present.
LEARNING EXPECTATION	2.1.9.	The influences of social, geographic, economic, and cultural factors an the history of local areas, states, nations, and the world.
THEME	NCSS.2.	TIME, CONTINUITY, AND CHANGE
DEFINITION		SOCIAL STUDIES PROGRAMS SHOULD INCLUDE EXPERIENCES THAT PROVIDE FOR THE STUDY OF THE PAST AND ITS LEGACY.
CATEGORY	2.2.	PROCESSES - Learners will be able to:
LEARNING EXPECTATION	2.2.2.	Identify and use a variety of primary and secondary sources for reconstructing the past, such as documents, letters, diaries, maps, textbooks, photos, and other sources.
LEARNING EXPECTATION	2.2.3.	Research and analyze past periods, events, and issues, using a variety of primary sources (e.g., documents, letters, artifacts, and testimony) as well as secondary sources; validate and weigh evidence for claims, and evaluate the usefulness and degree of reliability of sources to develop a supportable interpretation.
THEME	NCSS.3.	PEOPLE, PLACES, AND ENVIRONMENTS
DEFINITION		SOCIAL STUDIES PROGRAMS SHOULD INCLUDE EXPERIENCES THAT PROVIDE FOR THE STUDY OF PEOPLE, PLACES, AND ENVIRONMENTS.
CATEGORY	3.1.	KNOWLEDGE - Learners will understand:
LEARNING EXPECTATION	3.1.1.	The theme of people, places, and environments involves the study of the relationships between human populations in different locations and geographic phenomena such as climate, vegetation, and natural resources.
LEARNING EXPECTATION	3.1.2.	Concerts such as: location, region, place, and migration, as well as human and physical systems.
LEARNING EXPECTATION	3.1.3.	Past and present changes in physical systems, such as seasons, climate, and weather, and the water cycle, in both national and global contexts.
LEARNING EXPECTATION	3.1.5.	The concept of regions identifies links between people in different locations according to specific criteria (e.g., physical, economic, social, cultural, or religious).
LEARNING EXPECTATION	3.1.9.	The use of a variety of maps, globes, graphic representations, and geospatial technologies to help investigate the relationships among people, places, and environments.
THEME	NCSS.3.	PEOPLE, PLACES, AND ENVIRONMENTS
DEFINITION		SOCIAL STUDIES PROGRAMS SHOULD INCLUDE EXPERIENCES THAT PROVIDE FOR THE STUDY OF PEOPLE, PLACES, AND ENVIRONMENTS.
CATEGORY	3.2.	PROCESSES - Learners will be able to:
LEARNING EXPECTATION	3.2.1.	Ask and find answers to geographic questions related to regions, nations, and the world in the past and present.
LEARNING EXPECTATION	3.2.2.	Research, organize, analyze, synthesize, and evaluate information from atlases, data bases, grid systems, charts, graphs, maps, geospatial technologies, and other tools to interpret relationships among geographic factors and historic events.

National Council for the Social Studies (NCSS)

Social Studies

Grade **8** - Adopted: **2010**

THEME	**NCSS.2.**	**TIME, CONTINUITY, AND CHANGE**
DEFINITION		**SOCIAL STUDIES PROGRAMS SHOULD INCLUDE EXPERIENCES THAT PROVIDE FOR THE STUDY OF THE PAST AND ITS LEGACY.**
CATEGORY	**2.1.**	**KNOWLEDGE - Learners will understand:**
LEARNING EXPECTATION	**2.1.1.**	**The study of the past provides a representation of the history of communities, nations, and the world.**
LEARNING EXPECTATION	**2.1.2.**	**Concepts such as: chronology, causality, change, conflict, complexity, multiple perspectives, primary and secondary sources, and cause and effect.**
LEARNING EXPECTATION	**2.1.3.**	**That learning about the past requires the interpretation of sources, and that using varied sources provides the potential for a more balanced interpretive record of the past.**
LEARNING EXPECTATION	**2.1.4.**	**That historical interpretations of the same event may differ on the basis of such factors as conflicting evidence from varied sources, national or cultural perspectives, and the point of view of the researcher.**
LEARNING EXPECTATION	**2.1.5.**	**Key historical periods and patterns of change within and across cultures (e.g., the rise and fall of ancient civilizations, the development of technology, the rise of modern nation-states, and the establishment and breakdown of colonial systems).**
LEARNING EXPECTATION	**2.1.7.**	**The contributions of key persons, groups, and events from the past and their influence on the present.**
LEARNING EXPECTATION	**2.1.9.**	**The influences of social, geographic, economic, and cultural factors an the history of local areas, states, nations, and the world.**
THEME	**NCSS.2.**	**TIME, CONTINUITY, AND CHANGE**
DEFINITION		**SOCIAL STUDIES PROGRAMS SHOULD INCLUDE EXPERIENCES THAT PROVIDE FOR THE STUDY OF THE PAST AND ITS LEGACY.**
CATEGORY	**2.2.**	**PROCESSES - Learners will be able to:**
LEARNING EXPECTATION	**2.2.2.**	**Identify and use a variety of primary and secondary sources for reconstructing the past, such as documents, letters, diaries, maps, textbooks, photos, and other sources.**
LEARNING EXPECTATION	**2.2.3.**	**Research and analyze past periods, events, and issues, using a variety of primary sources (e.g., documents, letters, artifacts, and testimony) as well as secondary sources; validate and weigh evidence for claims, and evaluate the usefulness and degree of reliability of sources to develop a supportable interpretation.**
THEME	**NCSS.3.**	**PEOPLE, PLACES, AND ENVIRONMENTS**
DEFINITION		**SOCIAL STUDIES PROGRAMS SHOULD INCLUDE EXPERIENCES THAT PROVIDE FOR THE STUDY OF PEOPLE, PLACES, AND ENVIRONMENTS.**
CATEGORY	**3.1.**	**KNOWLEDGE - Learners will understand:**
LEARNING EXPECTATION	**3.1.1.**	**The theme of people, places, and environments involves the study of the relationships between human populations in different locations and geographic phenomena such as climate, vegetation, and natural resources.**
LEARNING EXPECTATION	**3.1.2.**	**Concerts such as: location, region, place, and migration, as well as human and physical systems.**
LEARNING EXPECTATION	**3.1.3.**	**Past and present changes in physical systems, such as seasons, climate, and weather, and the water cycle, in both national and global contexts.**
LEARNING EXPECTATION	**3.1.5.**	**The concept of regions identifies links between people in different locations according to specific criteria (e.g., physical, economic, social, cultural, or religious).**
LEARNING EXPECTATION	**3.1.9.**	**The use of a variety of maps, globes, graphic representations, and geospatial technologies to help investigate the relationships among people, places, and environments.**
THEME	**NCSS.3.**	**PEOPLE, PLACES, AND ENVIRONMENTS**
DEFINITION		**SOCIAL STUDIES PROGRAMS SHOULD INCLUDE EXPERIENCES THAT PROVIDE FOR THE STUDY OF PEOPLE, PLACES, AND ENVIRONMENTS.**
CATEGORY	**3.2.**	**PROCESSES - Learners will be able to:**
LEARNING EXPECTATION	**3.2.1.**	**Ask and find answers to geographic questions related to regions, nations, and the world in the past and present.**

LEARNING EXPECTATION	**3.2.2.**	**Research, organize, analyze, synthesize, and evaluate information from atlases, data bases, grid systems, charts, graphs, maps, geospatial technologies, and other tools to interpret relationships among geographic factors and historic events.**

Main Criteria: Virtual Field Trips
Secondary Criteria: National Geography Standards (NGS)
Subjects: Science, Social Studies
Grades: 4, 5, 6

Virtual Field Trips

Canada: Coast to Coast

National Geography Standards (NGS)
Science

Grade **4** - Adopted: **2012**

ESSENTIAL ELEMENT	**NGS.ES.**	**Environment and Society**
STANDARD	**ES.16.**	**The changes that occur in the meaning, use, distribution, and importance of resources**
STRAND	**ES.16.1.**	**Types and Meanings of Resources: The characteristics of renewable, nonrenewable, and flow resources**
BENCHMARK	**ES.16.1.A.**	**Identify and explain the characteristics of renewable, nonrenewable, and flow resources, as exemplified by being able to**
EXPECTATION	**ES.16.1.A.1.**	**Explain the meaning of the term "resource" and then illustrate the idea of renewable, nonrenewable, and flow resources by sorting example photographs into each of the three categories.**

National Geography Standards (NGS)
Science

Grade **5** - Adopted: **2012**

ESSENTIAL ELEMENT	**NGS.PS.**	**Physical Systems**
STANDARD	**PS.7.**	**The physical processes that shape the patterns of Earth's surface**
STRAND	**PS.7.2.**	**Earth-Sun Relationships: Earth-Sun relationships drives physical processes that follow an annual cycle and create patterns on Earth**
BENCHMARK	**PS.7.2.A.**	**Explain how Earth-Sun relationships drive Earth's physical processes and create annual patterns, as exemplified by being able to**
EXPECTATION	**PS.7.2.A.1.**	**Explain the occurrences of weather phenomena in different locations due to annual changes in the Earth-Sun relationship (e.g., hurricanes in the fall in subtropical areas, monsoon rainfall, tornadoes in the mid-latitudes during the spring and summer).**
ESSENTIAL ELEMENT	**NGS.HS.**	**Human Systems**
STANDARD	**HS.11.**	**The patterns and networks of economic interdependence on Earth's surface**
STRAND	**HS.11.1.**	**Economic Activities: The functions of different types of economic activities**
BENCHMARK	**HS.11.1.A.**	**Describe and analyze the functions of economic activities in the primary, secondary, tertiary, and quaternary sectors, as exemplified by being able to**
EXPECTATION	**HS.11.1.A.2.**	**Describe the sequence of activities that occur in the manufacture of products (e.g., in the production of a computerized sewing machine, the iron-ore mining is primary, smelting iron and steel are secondary, selling of the steel sewing machines is tertiary, and advertising is quaternary).**

ESSENTIAL ELEMENT	NGS.ES.	Environment and Society
STANDARD	ES.14.	How human actions modify the physical environment
STRAND	ES.14.1.	Modification of the Physical Environment: Human modifications of the physical environment in one place often lead to changes in other places
BENCHMARK	ES.14.1.A.	Describe and explain how human-induced changes in one place can affect the physical environment in other places, as exemplified by being able to
EXPECTATION	ES.14.1.A.1.	Describe and explain how the construction of dams and levees on rivers in one region affects places downstream (e.g., water availability for human consumption and agriculture, flood control, electricity generation, aquatic and riparian ecosystems).
ESSENTIAL ELEMENT	NGS.ES.	Environment and Society
STANDARD	ES.14.	How human actions modify the physical environment
STRAND	ES.14.3.	Consequences for People and Environments: The physical environment can both accommodate and be endangered by human activities
BENCHMARK	ES.14.3.A.	Analyze the positive and negative consequences of humans changing the physical environment, as exemplified by being able to
EXPECTATION	ES.14.3.A.1.	Analyze the positive and negative effects of human actions on the lithosphere (e.g., land degradation and erosion, soil salinization and acidification).
ESSENTIAL ELEMENT	NGS.ES.	Environment and Society
STANDARD	ES.16.	The changes that occur in the meaning, use, distribution, and importance of resources
STRAND	ES.16.2.	Location and Distribution of Resources: The formation and spatial distribution of types of resources
BENCHMARK	ES.16.2.A.	Describe the physical processes that influence the formation and therefore spatial distribution of renewable, nonrenewable, and flow resources, as exemplified by being able to
EXPECTATION	ES.16.2.A.2.	Describe the physical conditions necessary to generate electricity from flow resources (e.g., water, geothermal, solar, wind) and then identify on a US map potential locations for the generation of electricity from these flow resources.

National Geography Standards (NGS)

Science

Grade **6** - Adopted: **2012**

ESSENTIAL ELEMENT	NGS.PS.	Physical Systems
STANDARD	PS.7.	The physical processes that shape the patterns of Earth's surface
STRAND	PS.7.2.	Earth-Sun Relationships: Earth-Sun relationships drives physical processes that follow an annual cycle and create patterns on Earth
BENCHMARK	PS.7.2.A.	Explain how Earth-Sun relationships drive Earth’s physical processes and create annual patterns, as exemplified by being able to
EXPECTATION	PS.7.2.A.1.	Explain the occurrences of weather phenomena in different locations due to annual changes in the Earth-Sun relationship (e.g., hurricanes in the fall in subtropical areas, monsoon rainfall, tornadoes in the mid-latitudes during the spring and summer).
ESSENTIAL ELEMENT	NGS.HS.	Human Systems
STANDARD	HS.11.	The patterns and networks of economic interdependence on Earth's surface
STRAND	HS.11.1.	Economic Activities: The functions of different types of economic activities
BENCHMARK	HS.11.1.A.	Describe and analyze the functions of economic activities in the primary, secondary, tertiary, and quaternary sectors, as exemplified by being able to
EXPECTATION	HS.11.1.A.2.	Describe the sequence of activities that occur in the manufacture of products (e.g., in the production of a computerized sewing machine, the iron-ore mining is primary, smelting iron and steel are secondary, selling of the steel sewing machines is tertiary, and advertising is quaternary).

ESSENTIAL ELEMENT	NGS.ES.	Environment and Society
STANDARD	ES.14.	How human actions modify the physical environment
STRAND	ES.14.1.	Modification of the Physical Environment: Human modifications of the physical environment in one place often lead to changes in other places
BENCHMARK	ES.14.1.A.	Describe and explain how human-induced changes in one place can affect the physical environment in other places, as exemplified by being able to
EXPECTATION	ES.14.1.A.1.	Describe and explain how the construction of dams and levees on rivers in one region affects places downstream (e.g., water availability for human consumption and agriculture, flood control, electricity generation, aquatic and riparian ecosystems).
ESSENTIAL ELEMENT	NGS.ES.	Environment and Society
STANDARD	ES.14.	How human actions modify the physical environment
STRAND	ES.14.3.	Consequences for People and Environments: The physical environment can both accommodate and be endangered by human activities
BENCHMARK	ES.14.3.A.	Analyze the positive and negative consequences of humans changing the physical environment, as exemplified by being able to
EXPECTATION	ES.14.3.A.1.	Analyze the positive and negative effects of human actions on the lithosphere (e.g., land degradation and erosion, soil salinization and acidification).
ESSENTIAL ELEMENT	NGS.ES.	Environment and Society
STANDARD	ES.16.	The changes that occur in the meaning, use, distribution, and importance of resources
STRAND	ES.16.2.	Location and Distribution of Resources: The formation and spatial distribution of types of resources
BENCHMARK	ES.16.2.A.	Describe the physical processes that influence the formation and therefore spatial distribution of renewable, nonrenewable, and flow resources, as exemplified by being able to
EXPECTATION	ES.16.2.A.2.	Describe the physical conditions necessary to generate electricity from flow resources (e.g., water, geothermal, solar, wind) and then identify on a US map potential locations for the generation of electricity from these flow resources.

National Geography Standards (NGS)

Social Studies

Grade **4** - Adopted: **2012**

ESSENTIAL ELEMENT	NGS.WST.	The World in Spatial Terms
STANDARD	WST.1.	How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information
STRAND	WST.1.1.	Properties and Functions of Geographic Representations: Properties and functions of geographic representations—such as maps, globes, graphs, diagrams, aerial and other photographs, remotely sensed images, and geographic visualization
BENCHMARK	WST.1.1.A.	Identify and describe the properties (position and orientation, symbols, scale, perspective, coordinate systems) and functions of geographic representations, as exemplified by being able to
EXPECTATION	WST.1.1.A.2.	Identify and describe the functions of a variety of geographic representations.
ESSENTIAL ELEMENT	NGS.WST.	The World in Spatial Terms
STANDARD	WST.1.	How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information
STRAND	WST.1.1.	Properties and Functions of Geographic Representations: Properties and functions of geographic representations—such as maps, globes, graphs, diagrams, aerial and other photographs, remotely sensed images, and geographic visualization
BENCHMARK	WST.1.1.B.	Describe how properties of geographic representations determine the purposes they can be used for, as exemplified by being able to

EXPECTATION	WST.1.1.B.1.	Identify the maps or types of maps most appropriate for specific purposes, (e.g., to locate physical and/or human features, to determine the shortest route from one town to another town, to compare the number of people living at two or more locations).
EXPECTATION	WST.1.1.B.2.	Describe how a variety of geographic representations (maps, globes, graphs, diagrams, aerial and other photographs, GPS) are used to communicate different types of information.
ESSENTIAL ELEMENT	NGS.WST.	The World in Spatial Terms
STANDARD	WST.3.	How to analyze the spatial organization of people, places, and environments on Earth's surface
STRAND	WST.3.2.	Spatial Patterns and Processes: The distribution of people, places, and environments form spatial patterns across Earth’s surface
BENCHMARK	WST.3.2.A.	Describe and compare distributions of people, places, and environments to examine spatial patterns, sequences, regularities, and irregularities, as exemplified by being able to
EXPECTATION	WST.3.2.A.3.	Describe and compare the natural features and human factors using geographic representations that may influence where people live (e.g., access to water, climatic conditions, rivers, and bridges).
ESSENTIAL ELEMENT	NGS.PR.	Places and Regions
STANDARD	PR.4.	The physical and human characteristics of places
STRAND	PR.4.1.	The Concept of Place: Places are locations having distinctive characteristics that give them meaning and distinguish them from other locations
BENCHMARK	PR.4.1.A.	Describe the distinguishing characteristics and meanings of several different places, as exemplified by being able to
EXPECTATION	PR.4.1.A.1.	Identify and describe categories of characteristics that define a location as a place (e.g., weather characteristics, population density, architectural styles, landforms, vegetation, cultures, types of industry).
EXPECTATION	PR.4.1.A.3.	Describe how certain places may have meanings that distinguish them from other places (e.g., cemetery, historical park or battlefield, religious shrines or temples, state or national parks).
ESSENTIAL ELEMENT	NGS.PR.	Places and Regions
STANDARD	PR.4.	The physical and human characteristics of places
STRAND	PR.4.2.	The Characteristics of Places: Places have physical and human characteristics
BENCHMARK	PR.4.2.A.	Describe and compare the physical characteristics of places at a variety of scales, local to global, as exemplified by being able to
EXPECTATION	PR.4.2.A.3.	Describe and compare the physical environments and landforms of different places in the world (e.g., mountains, islands, valleys or canyons, mesas).
ESSENTIAL ELEMENT	NGS.PR.	Places and Regions
STANDARD	PR.5.	That people create regions to interpret Earth's complexity
STRAND	PR.5.1.	The Concept of Region: Regions are areas of Earth’s surface with unifying physical and/or human characteristics
BENCHMARK	PR.5.1.A.	Describe the distinguishing characteristics and meanings of several different regions, as exemplified by being able to
EXPECTATION	PR.5.1.A.1.	Identify unifying areas on a map that define those areas as regions (e.g., a zoo map showing how animal exhibits are organized by regions related to climate, landforms, and vegetation zones).
ESSENTIAL ELEMENT	NGS.PS.	Physical Systems
STANDARD	PS.7.	The physical processes that shape the patterns of Earth's surface
STRAND	PS.7.1.	Components of Earth’s Physical Systems: There are four components of Earth's physical systems (the atmosphere, biosphere, hydrosphere, and lithosphere)
BENCHMARK	PS.7.1.A.	Identify attributes of Earth's different physical systems, as exemplified by being able to

EXPECTATION	PS.7.1.A.1.	Identify different attributes of physical systems in photographs (e.g., sky, clouds, plants, soil, oceans, lakes, mountains).
EXPECTATION	PS.7.1.A.3.	Identify examples of landforms on Earth's surface (e.g., mountains, volcanoes, valleys, plains).
ESSENTIAL ELEMENT	NGS.PS.	Physical Systems
STANDARD	PS.8.	The characteristics and spatial distribution of ecosystems and biomes on Earth's surface
STRAND	PS.8.1.	Components of Ecosystems: The components of ecosystems
BENCHMARK	PS.8.1.A.	Identify the components of different ecosystems, as exemplified by being able to
EXPECTATION	PS.8.1.A.1.	Identify the three major components of an ecosystem (i.e., biomass, climate, and soil).
EXPECTATION	PS.8.1.A.2.	Identify examples of each ecosystem component (e.g., pine trees versus grasslands, low versus high rainfall, clay versus sandy soils).
ESSENTIAL ELEMENT	NGS.PS.	Physical Systems
STANDARD	PS.8.	The characteristics and spatial distribution of ecosystems and biomes on Earth's surface
STRAND	PS.8.2.	Characteristics and Geographic Distribution of Ecosystems: The characteristics of ecosystems
BENCHMARK	PS.8.2.A.	Identify and describe the characteristics of ecosystems, as exemplified by being able to
EXPECTATION	PS.8.2.A.1.	Identify and describe the characteristics of an ecosystem (specific types of plants, climate, and soil) in which a favorite or interesting creature lives.
EXPECTATION	PS.8.2.A.3.	Compare the characteristics of different ecosystems (e.g., pond, deciduous forest, coral reef).
ESSENTIAL ELEMENT	NGS.PS.	Physical Systems
STANDARD	PS.8.	The characteristics and spatial distribution of ecosystems and biomes on Earth's surface
STRAND	PS.8.3.	Characteristics and Geographic Distribution of Biomes: The characteristics of biomes
BENCHMARK	PS.8.3.A.	Describe the characteristics of biomes, as exemplified by being able to
EXPECTATION	PS.8.3.A.1.	Describe the defining characteristics of a biome as a large region of ecosystems with similar climate and vegetation characteristics.
EXPECTATION	PS.8.3.A.2.	Describe the temperature, precipitation, and vegetation characteristics of various biomes, (e.g., deserts, grasslands, savannahs, temperate forests, tropical forests, arctic tundra).
EXPECTATION	PS.8.3.A.3.	Identify the characteristics in photographs of different types of vegetation and match them to the appropriate sections of a world climate map (e.g., cacti and succulents on a desert climate region, tropical forest trees on a tropical climate region, coral in shallow, tropical marine waters).
ESSENTIAL ELEMENT	NGS.HS.	Human Systems
STANDARD	HS.12.	The processes, patterns, and functions of human settlement
STRAND	HS.12.2.	Functions of Settlements: Settlements occur where locations provide opportunities and therefore advantages
BENCHMARK	HS.12.2.A.	Explain why some locations are better for settlement than others, as exemplified by being able to
EXPECTATION	HS.12.2.A.1.	Identify and explain the factors that might make a location good for settlement (e.g., flat land for building, access to a river or the sea, resources nearby for building).
EXPECTATION	HS.12.2.A.2.	Describe and explain the advantages of locations where settlements developed in the United States (e.g., Boston on a natural harbor, New Orleans at the mouth of the Mississippi, Chicago at the intersection of Great Lakes water traffic and the railroads).
EXPECTATION	HS.12.2.A.3.	Describe the factors that contributed to successful settlement locations (e.g., harbors, resources for housing and fuel, reliable fresh water supply, non-hostile neighbors, natural defenses, reliable food sources, suitable land for agriculture).

ESSENTIAL ELEMENT	NGS.ES.	Environment and Society
STANDARD	ES.15.	How physical systems affect human systems
STRAND	ES.15.1.	Environmental Opportunities and Constraints: The physical environment provides opportunities for and imposes constraints on human activities
BENCHMARK	ES.15.1.B.	Describe examples in which the physical environment imposes constraints on human activities, as exemplified by being able to
EXPECTATION	ES.15.1.B.2.	Describe examples in which human activities are limited by different types of climates (e.g., cold or polar, rainy or dry, equatorial).
ESSENTIAL ELEMENT	NGS.ES.	Environment and Society
STANDARD	ES.15.	How physical systems affect human systems
STRAND	ES.15.3.	Adaptation to the Environment: People adapt to the conditions of the physical environment
BENCHMARK	ES.15.3.A.	Describe how people adapt to conditions of the physical environment, as exemplified by being able to
EXPECTATION	ES.15.3.A.1.	Identify and describe how people adapt to the physical environment through choices of clothing, housing styles, food choices, recreational activities, and land use.
EXPECTATION	ES.15.3.A.2.	Describe how people adapt differently to different physical environments (e.g., clothing in Florida versus Alaska, houses in Hawaii versus Minnesota).
ESSENTIAL ELEMENT	NGS.UG.	The Uses of Geography
STANDARD	UG.18.	How to apply geography to interpret the present and plan for the future
STRAND	UG.18.3.	Perceptions of Geographic Contexts: People's perceptions of the world—places, regions, and environments—are constantly changing
BENCHMARK	UG.18.3.A.	Explain how people's perceptions of the world can change with new information and new experiences, as exemplified by being able to
EXPECTATION	UG.18.3.A.2.	Explain how the depiction of a place in movies or on television can affect how people perceive that place.
EXPECTATION	UG.18.3.A.3.	Describe and explain how a student's view of his or her home community can be different from someone who is only visiting the community.

National Geography Standards (NGS)
Social Studies

Grade **5** - Adopted: **2012**

ESSENTIAL ELEMENT	NGS.WST.	The World in Spatial Terms
STANDARD	WST.1.	How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information
STRAND	WST.1.1.	Properties and Functions of Geographic Representations: The advantages and disadvantages of using different geographic representations—such as maps, globes, graphs, diagrams, aerial and other photographs, remotely sensed images, and geographic visualizations for analyzing spatial distributions and patterns
BENCHMARK	WST.1.1.B.	Evaluate the appropriate use of geospatial representations for specific geographic tasks, such as analyzing spatial distributions and patterns, as exemplified by being able to
EXPECTATION	WST.1.1.B.3.	Compare the patterns shown by geographic representations at different scales (e.g., neighborhood, city, state, country).
ESSENTIAL ELEMENT	NGS.WST.	The World in Spatial Terms
STANDARD	WST.1.	How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information
STRAND	WST.1.4.	Using Geographic Representations: The use of geographic representations to ask and answer geographic questions
BENCHMARK	WST.1.4.A.	Analyze geographic representations to ask and answer questions about spatial distributions and patterns, as exemplified by being able to

EXPECTATION	WST.1.4.A.1.	Analyze printed and digital maps to observe spatial distributions and patterns to generate and answer geographic questions (e.g., use digital census data to determine demographic patterns in a state, or analyze census data and transportation routes to identify and locate services, such as a day-care center or stores needed in a region).
ESSENTIAL ELEMENT	NGS.WST.	The World in Spatial Terms
STANDARD	WST.2.	How to use mental maps to organize information about people, places, and environments in a spatial context
STRAND	WST.2.3.	Using Mental Maps: Mental maps are used to answer geographic questions about locations, characteristics, and patterns of places and regions
BENCHMARK	WST.2.3.A.	Identify from memory and describe the locations, characteristics, and patterns of places and regions to answer geographic questions, as exemplified by being able to
EXPECTATION	WST.2.3.A.1.	Identify from memory and describe the patterns of coastal population density and place characteristics to explain why people may choose to live where they do in the world.
ESSENTIAL ELEMENT	NGS.PR.	Places and Regions
STANDARD	PR.4.	The physical and human characteristics of places
STRAND	PR.4.1.	The Concept of Place: Personal, community, and national identities are rooted in and attached to places
BENCHMARK	PR.4.1.A.	Explain how personal, community, or national identities are based on places, as exemplified by being able to
EXPECTATION	PR.4.1.A.1.	Describe and explain the factors that contribute to the identity of being from a specific place (e.g., a “New Yorker,” a “Southerner,” a “Texan,” a postal code such as 90210).
EXPECTATION	PR.4.1.A.2.	Explain how a place-based identity results from the characteristics of a place (e.g., environmentally conscious Inuit of Northwest Canada, seafaring traditions of Gloucester Harbor, Massachusetts, nomadic herders in the eastern steppes of Mongolia).
EXPECTATION	PR.4.1.A.3.	Explain how place-based identities can sometimes result in stereotypes of people from a specific place (e.g., fitness-conscious people from Colorado, cowboys from Wyoming or Texas, miners from Appalachia, coffee-drinking people from Seattle).
ESSENTIAL ELEMENT	NGS.PR.	Places and Regions
STANDARD	PR.5.	That people create regions to interpret Earth's complexity
STRAND	PR.5.1.	The Concept of Region: Different types of regions are used to organize and interpret areas of Earth’s surface
BENCHMARK	PR.5.1.A.	Identify and explain the criteria used to define formal, functional, and perceptual regions, as exemplified by being able to
EXPECTATION	PR.5.1.A.1.	Identify and explain the bases for the formal region(s), functional region(s), and perceptual region(s) for the community or state where the students live (e.g., for Michigan, the Kalamazoo-Battle Creek Metropolitan Statistical Area is a formal region, the fruit belt in Southwest Michigan is a functional region, Kalamazoo as the snow belt capital of Lake Michigan is a perceptual region).
EXPECTATION	PR.5.1.A.3.	Analyze collected maps with regional labels as examples of formal, functional, or perceptual regions (e.g., maps of physical regions as formal, weather maps as functional, tourist maps as perceptual).
ESSENTIAL ELEMENT	NGS.PR.	Places and Regions
STANDARD	PR.6.	How culture and experience influence people's perceptions of places and regions
STRAND	PR.6.1.	The Perception of Places and Regions: People’s different perceptions of places and regions are influenced by their life experiences
BENCHMARK	PR.6.1.A.	Describe examples of how perceptions of places and regions are based on direct experiences (e.g., living in a place, travel) and indirect experiences (e.g., media, books, family, and friends), as exemplified by being able to
EXPECTATION	PR.6.1.A.1.	Describe students’ perceptions of a place that are based on indirect sources (e.g., television, films, movies, travel brochures).

EXPECTATION	PR.6.1.A.2.	Describe students' perceptions of a place that are based on direct sources (e.g., visiting the place, multiple visits, or residing in the place).
ESSENTIAL ELEMENT	NGS.PS.	Physical Systems
STANDARD	PS.7.	The physical processes that shape the patterns of Earth's surface
STRAND	PS.7.1.	Components of Earth's Physical Systems: The four components of Earth's physical systems (the atmosphere, biosphere, hydrosphere, and lithosphere) are interdependent
BENCHMARK	PS.7.1.A.	Identify and describe patterns in the environment that result from the interaction of Earth's physical processes, as exemplified by being able to
EXPECTATION	PS.7.1.A.2.	Identify and describe the patterns that result from the connections between climate and vegetation (e.g., examples of patterns of ecosystems and biomes).
ESSENTIAL ELEMENT	NGS.PS.	Physical Systems
STANDARD	PS.8.	The characteristics and spatial distribution of ecosystems and biomes on Earth's surface
STRAND	PS.8.2.	Characteristics and Geographic Distribution of Ecosystems: Physical processes determine the characteristics of ecosystems
BENCHMARK	PS.8.2.A.	Describe and explain how physical processes determine the characteristics of ecosystems, as exemplified by being able to
EXPECTATION	PS.8.2.A.2.	Explain how different locations can have similar ecosystems as a function of temperature, precipitation, elevation, and latitude by using climographs and vegetation maps.
ESSENTIAL ELEMENT	NGS.PS.	Physical Systems
STANDARD	PS.8.	The characteristics and spatial distribution of ecosystems and biomes on Earth's surface
STRAND	PS.8.3.	Characteristics and Geographic Distribution of Biomes: Climate primarily determines the characteristics and geographic distribution of biomes
BENCHMARK	PS.8.3.A.	Describe and explain how climate (temperature and rainfall) primarily determines the characteristics and geographic distribution of biomes, as exemplified by being able to
EXPECTATION	PS.8.3.A.3.	Explain how biomes do not always follow lines of latitude by identifying the influences of oceans and mountain ranges on the distribution of climate and vegetation.
ESSENTIAL ELEMENT	NGS.HS.	Human Systems
STANDARD	HS.12.	The processes, patterns, and functions of human settlement
STRAND	HS.12.3.	Patterns of Settlements: There are patterns of settlements in regions
BENCHMARK	HS.12.3.A.	Compare and explain the location, number, and sizes of settlements in regions, as exemplified by being able to
EXPECTATION	HS.12.3.A.2.	Explain possible reasons why some locations can support more population in settlements than other locations.
EXPECTATION	HS.12.3.A.3.	Compare the settlement patterns in three different regions of the world and describe the particular patterns (e.g., linear patterns, clustered patterns, dispersed patterns).
ESSENTIAL ELEMENT	NGS.ES.	Environment and Society
STANDARD	ES.15.	How physical systems affect human systems
STRAND	ES.15.1.	Environmental Opportunities and Constraints: The characteristics of a physical environment provide opportunities for and impose constraints on human activities
BENCHMARK	ES.15.1.A.	Explain how the characteristics of different physical environments offer opportunities for human activities, as exemplified by being able to
EXPECTATION	ES.15.1.A.1.	Describe and explain the environmental characteristics that people consider when deciding on locations for human activities (e.g., locating a waterwheel at a river's fall line for power, locating a ski resort in a high snowfall area with easy access for recreational skiers, farming on fertile flood plains for high crop yields).
ESSENTIAL ELEMENT	NGS.UG.	The Uses of Geography

STANDARD	UG.17.	How to apply geography to interpret the past
STRAND	UG.17.3.	Perceptions of Geographic Contexts: Historical events were influenced by people's perceptions of places, regions, and environments
BENCHMARK	UG.17.3.A.	Explain how historical events were influenced by people's perceptions of people, places, regions, and environments, as exemplified by being able to
EXPECTATION	UG.17.3.A.1.	Explain how geographic perceptions impacted decisions of and actions by an individual, a group, or a nation (e.g., the perception of land uses and its values leading to the creation and later dissolution of the Indian Territory in the United States, views held resulting in Australia initially being used as a penal colony, perceptions of desert regions as resource-poor changed when oil was discovered).

National Geography Standards (NGS)

Social Studies

Grade **6** - Adopted: **2012**

ESSENTIAL ELEMENT	NGS.WST.	The World in Spatial Terms
STANDARD	WST.1.	How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information
STRAND	WST.1.1.	Properties and Functions of Geographic Representations: The advantages and disadvantages of using different geographic representations—such as maps, globes, graphs, diagrams, aerial and other photographs, remotely sensed images, and geographic visualizations for analyzing spatial distributions and patterns
BENCHMARK	WST.1.1.B.	Evaluate the appropriate use of geospatial representations for specific geographic tasks, such as analyzing spatial distributions and patterns, as exemplified by being able to
EXPECTATION	WST.1.1.B.3.	Compare the patterns shown by geographic representations at different scales (e.g., neighborhood, city, state, country).
ESSENTIAL ELEMENT	NGS.WST.	The World in Spatial Terms
STANDARD	WST.1.	How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information
STRAND	WST.1.4.	Using Geographic Representations: The use of geographic representations to ask and answer geographic questions
BENCHMARK	WST.1.4.A.	Analyze geographic representations to ask and answer questions about spatial distributions and patterns, as exemplified by being able to
EXPECTATION	WST.1.4.A.1.	Analyze printed and digital maps to observe spatial distributions and patterns to generate and answer geographic questions (e.g., use digital census data to determine demographic patterns in a state, or analyze census data and transportation routes to identify and locate services, such as a day-care center or stores needed in a region).
ESSENTIAL ELEMENT	NGS.WST.	The World in Spatial Terms
STANDARD	WST.2.	How to use mental maps to organize information about people, places, and environments in a spatial context
STRAND	WST.2.3.	Using Mental Maps: Mental maps are used to answer geographic questions about locations, characteristics, and patterns of places and regions
BENCHMARK	WST.2.3.A.	Identify from memory and describe the locations, characteristics, and patterns of places and regions to answer geographic questions, as exemplified by being able to
EXPECTATION	WST.2.3.A.1.	Identify from memory and describe the patterns of coastal population density and place characteristics to explain why people may choose to live where they do in the world.
ESSENTIAL ELEMENT	NGS.PR.	Places and Regions
STANDARD	PR.4.	The physical and human characteristics of places
STRAND	PR.4.1.	The Concept of Place: Personal, community, and national identities are rooted in and attached to places

BENCHMARK	PR.4.1.A.	Explain how personal, community, or national identities are based on places, as exemplified by being able to
EXPECTATION	PR.4.1.A.1.	Describe and explain the factors that contribute to the identity of being from a specific place (e.g., a “New Yorker,” a “Southerner,” a “Texan,” a postal code such as 90210).
EXPECTATION	PR.4.1.A.2.	Explain how a place-based identity results from the characteristics of a place (e.g., environmentally conscious Inuit of Northwest Canada, seafaring traditions of Gloucester Harbor, Massachusetts, nomadic herders in the eastern steppes of Mongolia).
EXPECTATION	PR.4.1.A.3.	Explain how place-based identities can sometimes result in stereotypes of people from a specific place (e.g., fitness-conscious people from Colorado, cowboys from Wyoming or Texas, miners from Appalachia, coffee-drinking people from Seattle).
ESSENTIAL ELEMENT	NGS.PR.	Places and Regions
STANDARD	PR.5.	That people create regions to interpret Earth's complexity
STRAND	PR.5.1.	The Concept of Region: Different types of regions are used to organize and interpret areas of Earth’s surface
BENCHMARK	PR.5.1.A.	Identify and explain the criteria used to define formal, functional, and perceptual regions, as exemplified by being able to
EXPECTATION	PR.5.1.A.1.	Identify and explain the bases for the formal region(s), functional region(s), and perceptual region(s) for the community or state where the students live (e.g., for Michigan, the Kalamazoo-Battle Creek Metropolitan Statistical Area is a formal region, the fruit belt in Southwest Michigan is a functional region, Kalamazoo as the snow belt capital of Lake Michigan is a perceptual region).
EXPECTATION	PR.5.1.A.3.	Analyze collected maps with regional labels as examples of formal, functional, or perceptual regions (e.g., maps of physical regions as formal, weather maps as functional, tourist maps as perceptual).
ESSENTIAL ELEMENT	NGS.PR.	Places and Regions
STANDARD	PR.6.	How culture and experience influence people's perceptions of places and regions
STRAND	PR.6.1.	The Perception of Places and Regions: People’s different perceptions of places and regions are influenced by their life experiences
BENCHMARK	PR.6.1.A.	Describe examples of how perceptions of places and regions are based on direct experiences (e.g., living in a place, travel) and indirect experiences (e.g., media, books, family, and friends), as exemplified by being able to
EXPECTATION	PR.6.1.A.1.	Describe students’ perceptions of a place that are based on indirect sources (e.g., television, films, movies, travel brochures).
EXPECTATION	PR.6.1.A.2.	Describe students’ perceptions of a place that are based on direct sources (e.g., visiting the place, multiple visits, or residing in the place).
ESSENTIAL ELEMENT	NGS.PS.	Physical Systems
STANDARD	PS.7.	The physical processes that shape the patterns of Earth's surface
STRAND	PS.7.1.	Components of Earth’s Physical Systems: The four components of Earth’s physical systems (the atmosphere, biosphere, hydrosphere, and lithosphere) are interdependent
BENCHMARK	PS.7.1.A.	Identify and describe patterns in the environment that result from the interaction of Earth’s physical processes, as exemplified by being able to
EXPECTATION	PS.7.1.A.2.	Identify and describe the patterns that result from the connections between climate and vegetation (e.g., examples of patterns of ecosystems and biomes).
ESSENTIAL ELEMENT	NGS.PS.	Physical Systems
STANDARD	PS.8.	The characteristics and spatial distribution of ecosystems and biomes on Earth's surface
STRAND	PS.8.2.	Characteristics and Geographic Distribution of Ecosystems: Physical processes determine the characteristics of ecosystems
BENCHMARK	PS.8.2.A.	Describe and explain how physical processes determine the characteristics of ecosystems, as exemplified by being able to

EXPECTATION	PS.8.2.A.2.	Explain how different locations can have similar ecosystems as a function of temperature, precipitation, elevation, and latitude by using climographs and vegetation maps.
ESSENTIAL ELEMENT	NGS.PS.	Physical Systems
STANDARD	PS.8.	The characteristics and spatial distribution of ecosystems and biomes on Earth's surface
STRAND	PS.8.3.	Characteristics and Geographic Distribution of Biomes: Climate primarily determines the characteristics and geographic distribution of biomes
BENCHMARK	PS.8.3.A.	Describe and explain how climate (temperature and rainfall) primarily determines the characteristics and geographic distribution of biomes, as exemplified by being able to
EXPECTATION	PS.8.3.A.3.	Explain how biomes do not always follow lines of latitude by identifying the influences of oceans and mountain ranges on the distribution of climate and vegetation.
ESSENTIAL ELEMENT	NGS.HS.	Human Systems
STANDARD	HS.12.	The processes, patterns, and functions of human settlement
STRAND	HS.12.3.	Patterns of Settlements: There are patterns of settlements in regions
BENCHMARK	HS.12.3.A.	Compare and explain the location, number, and sizes of settlements in regions, as exemplified by being able to
EXPECTATION	HS.12.3.A.2.	Explain possible reasons why some locations can support more population in settlements than other locations.
EXPECTATION	HS.12.3.A.3.	Compare the settlement patterns in three different regions of the world and describe the particular patterns (e.g., linear patterns, clustered patterns, dispersed patterns).
ESSENTIAL ELEMENT	NGS.ES.	Environment and Society
STANDARD	ES.15.	How physical systems affect human systems
STRAND	ES.15.1.	Environmental Opportunities and Constraints: The characteristics of a physical environment provide opportunities for and impose constraints on human activities
BENCHMARK	ES.15.1.A.	Explain how the characteristics of different physical environments offer opportunities for human activities, as exemplified by being able to
EXPECTATION	ES.15.1.A.1.	Describe and explain the environmental characteristics that people consider when deciding on locations for human activities (e.g., locating a waterwheel at a river's fall line for power, locating a ski resort in a high snowfall area with easy access for recreational skiers, farming on fertile flood plains for high crop yields).
ESSENTIAL ELEMENT	NGS.UG.	The Uses of Geography
STANDARD	UG.17.	How to apply geography to interpret the past
STRAND	UG.17.3.	Perceptions of Geographic Contexts: Historical events were influenced by people's perceptions of places, regions, and environments
BENCHMARK	UG.17.3.A.	Explain how historical events were influenced by people's perceptions of people, places, regions, and environments, as exemplified by being able to
EXPECTATION	UG.17.3.A.1.	Explain how geographic perceptions impacted decisions of and actions by an individual, a group, or a nation (e.g., the perception of land uses and its values leading to the creation and later dissolution of the Indian Territory in the United States, views held resulting in Australia initially being used as a penal colony, perceptions of desert regions as resource-poor changed when oil was discovered).

Main Criteria: Virtual Field Trips
Secondary Criteria: National Geography Standards (NGS)
Subjects: Science, Social Studies
Grades: 7, 8

Virtual Field Trips

Canada: Coast to Coast

National Geography Standards (NGS)
Science

Grade **7** - Adopted: **2012**

ESSENTIAL ELEMENT	**NGS.PS.**	**Physical Systems**
STANDARD	**PS.7.**	**The physical processes that shape the patterns of Earth's surface**
STRAND	**PS.7.2.**	**Earth-Sun Relationships: Earth-Sun relationships drives physical processes that follow an annual cycle and create patterns on Earth**
BENCHMARK	**PS.7.2.A.**	**Explain how Earth-Sun relationships drive Earth's physical processes and create annual patterns, as exemplified by being able to**
EXPECTATION	**PS.7.2.A.1.**	**Explain the occurrences of weather phenomena in different locations due to annual changes in the Earth-Sun relationship (e.g., hurricanes in the fall in subtropical areas, monsoon rainfall, tornadoes in the mid-latitudes during the spring and summer).**
ESSENTIAL ELEMENT	**NGS.HS.**	**Human Systems**
STANDARD	**HS.11.**	**The patterns and networks of economic interdependence on Earth's surface**
STRAND	**HS.11.1.**	**Economic Activities: The functions of different types of economic activities**
BENCHMARK	**HS.11.1.A.**	**Describe and analyze the functions of economic activities in the primary, secondary, tertiary, and quaternary sectors, as exemplified by being able to**
EXPECTATION	**HS.11.1.A.2.**	**Describe the sequence of activities that occur in the manufacture of products (e.g., in the production of a computerized sewing machine, the iron-ore mining is primary, smelting iron and steel are secondary, selling of the steel sewing machines is tertiary, and advertising is quaternary).**
ESSENTIAL ELEMENT	**NGS.ES.**	**Environment and Society**
STANDARD	**ES.14.**	**How human actions modify the physical environment**
STRAND	**ES.14.1.**	**Modification of the Physical Environment: Human modifications of the physical environment in one place often lead to changes in other places**
BENCHMARK	**ES.14.1.A.**	**Describe and explain how human-induced changes in one place can affect the physical environment in other places, as exemplified by being able to**
EXPECTATION	**ES.14.1.A.1.**	**Describe and explain how the construction of dams and levees on rivers in one region affects places downstream (e.g., water availability for human consumption and agriculture, flood control, electricity generation, aquatic and riparian ecosystems).**
ESSENTIAL ELEMENT	**NGS.ES.**	**Environment and Society**
STANDARD	**ES.14.**	**How human actions modify the physical environment**
STRAND	**ES.14.3.**	**Consequences for People and Environments: The physical environment can both accommodate and be endangered by human activities**
BENCHMARK	**ES.14.3.A.**	**Analyze the positive and negative consequences of humans changing the physical environment, as exemplified by being able to**
EXPECTATION	**ES.14.3.A.1.**	**Analyze the positive and negative effects of human actions on the lithosphere (e.g., land degradation and erosion, soil salinization and acidification).**

ESSENTIAL ELEMENT	NGS.ES.	Environment and Society
STANDARD	ES.16.	The changes that occur in the meaning, use, distribution, and importance of resources
STRAND	ES.16.2.	Location and Distribution of Resources: The formation and spatial distribution of types of resources
BENCHMARK	ES.16.2.A.	Describe the physical processes that influence the formation and therefore spatial distribution of renewable, nonrenewable, and flow resources, as exemplified by being able to
EXPECTATION	ES.16.2.A.2.	Describe the physical conditions necessary to generate electricity from flow resources (e.g., water, geothermal, solar, wind) and then identify on a US map potential locations for the generation of electricity from these flow resources.

National Geography Standards (NGS)

Science

Grade **8** - Adopted: **2012**

ESSENTIAL ELEMENT	NGS.PS.	Physical Systems
STANDARD	PS.7.	The physical processes that shape the patterns of Earth's surface
STRAND	PS.7.2.	Earth-Sun Relationships: Earth-Sun relationships drives physical processes that follow an annual cycle and create patterns on Earth
BENCHMARK	PS.7.2.A.	Explain how Earth-Sun relationships drive Earth's physical processes and create annual patterns, as exemplified by being able to
EXPECTATION	PS.7.2.A.1.	Explain the occurrences of weather phenomena in different locations due to annual changes in the Earth-Sun relationship (e.g., hurricanes in the fall in subtropical areas, monsoon rainfall, tornadoes in the mid-latitudes during the spring and summer).
ESSENTIAL ELEMENT	NGS.HS.	Human Systems
STANDARD	HS.11.	The patterns and networks of economic interdependence on Earth's surface
STRAND	HS.11.1.	Economic Activities: The functions of different types of economic activities
BENCHMARK	HS.11.1.A.	Describe and analyze the functions of economic activities in the primary, secondary, tertiary, and quaternary sectors, as exemplified by being able to
EXPECTATION	HS.11.1.A.2.	Describe the sequence of activities that occur in the manufacture of products (e.g., in the production of a computerized sewing machine, the iron-ore mining is primary, smelting iron and steel are secondary, selling of the steel sewing machines is tertiary, and advertising is quaternary).
ESSENTIAL ELEMENT	NGS.ES.	Environment and Society
STANDARD	ES.14.	How human actions modify the physical environment
STRAND	ES.14.1.	Modification of the Physical Environment: Human modifications of the physical environment in one place often lead to changes in other places
BENCHMARK	ES.14.1.A.	Describe and explain how human-induced changes in one place can affect the physical environment in other places, as exemplified by being able to
EXPECTATION	ES.14.1.A.1.	Describe and explain how the construction of dams and levees on rivers in one region affects places downstream (e.g., water availability for human consumption and agriculture, flood control, electricity generation, aquatic and riparian ecosystems).
ESSENTIAL ELEMENT	NGS.ES.	Environment and Society
STANDARD	ES.14.	How human actions modify the physical environment
STRAND	ES.14.3.	Consequences for People and Environments: The physical environment can both accommodate and be endangered by human activities
BENCHMARK	ES.14.3.A.	Analyze the positive and negative consequences of humans changing the physical environment, as exemplified by being able to
EXPECTATION	ES.14.3.A.1.	Analyze the positive and negative effects of human actions on the lithosphere (e.g., land degradation and erosion, soil salinization and acidification).

ESSENTIAL ELEMENT	NGS.ES.	Environment and Society
STANDARD	ES.16.	The changes that occur in the meaning, use, distribution, and importance of resources
STRAND	ES.16.2.	Location and Distribution of Resources: The formation and spatial distribution of types of resources
BENCHMARK	ES.16.2.A.	Describe the physical processes that influence the formation and therefore spatial distribution of renewable, nonrenewable, and flow resources, as exemplified by being able to
EXPECTATION	ES.16.2.A.2.	Describe the physical conditions necessary to generate electricity from flow resources (e.g., water, geothermal, solar, wind) and then identify on a US map potential locations for the generation of electricity from these flow resources.

National Geography Standards (NGS)

Social Studies

Grade **7** - Adopted: **2012**

ESSENTIAL ELEMENT	NGS.WST.	The World in Spatial Terms
STANDARD	WST.1.	How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information
STRAND	WST.1.1.	Properties and Functions of Geographic Representations: The advantages and disadvantages of using different geographic representations—such as maps, globes, graphs, diagrams, aerial and other photographs, remotely sensed images, and geographic visualizations for analyzing spatial distributions and patterns
BENCHMARK	WST.1.1.B.	Evaluate the appropriate use of geospatial representations for specific geographic tasks, such as analyzing spatial distributions and patterns, as exemplified by being able to
EXPECTATION	WST.1.1.B.3.	Compare the patterns shown by geographic representations at different scales (e.g., neighborhood, city, state, country).
ESSENTIAL ELEMENT	NGS.WST.	The World in Spatial Terms
STANDARD	WST.1.	How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information
STRAND	WST.1.4.	Using Geographic Representations: The use of geographic representations to ask and answer geographic questions
BENCHMARK	WST.1.4.A.	Analyze geographic representations to ask and answer questions about spatial distributions and patterns, as exemplified by being able to
EXPECTATION	WST.1.4.A.1.	Analyze printed and digital maps to observe spatial distributions and patterns to generate and answer geographic questions (e.g., use digital census data to determine demographic patterns in a state, or analyze census data and transportation routes to identify and locate services, such as a day-care center or stores needed in a region).
ESSENTIAL ELEMENT	NGS.WST.	The World in Spatial Terms
STANDARD	WST.2.	How to use mental maps to organize information about people, places, and environments in a spatial context
STRAND	WST.2.3.	Using Mental Maps: Mental maps are used to answer geographic questions about locations, characteristics, and patterns of places and regions
BENCHMARK	WST.2.3.A.	Identify from memory and describe the locations, characteristics, and patterns of places and regions to answer geographic questions, as exemplified by being able to
EXPECTATION	WST.2.3.A.1.	Identify from memory and describe the patterns of coastal population density and place characteristics to explain why people may choose to live where they do in the world.
ESSENTIAL ELEMENT	NGS.PR.	Places and Regions
STANDARD	PR.4.	The physical and human characteristics of places

STRAND	PR.4.1.	The Concept of Place: Personal, community, and national identities are rooted in and attached to places
BENCHMARK	PR.4.1.A.	Explain how personal, community, or national identities are based on places, as exemplified by being able to
EXPECTATION	PR.4.1.A.1.	Describe and explain the factors that contribute to the identity of being from a specific place (e.g., a “New Yorker,” a “Southerner,” a “Texan,” a postal code such as 90210).
EXPECTATION	PR.4.1.A.2.	Explain how a place-based identity results from the characteristics of a place (e.g., environmentally conscious Inuit of Northwest Canada, seafaring traditions of Gloucester Harbor, Massachusetts, nomadic herders in the eastern steppes of Mongolia).
EXPECTATION	PR.4.1.A.3.	Explain how place-based identities can sometimes result in stereotypes of people from a specific place (e.g., fitness-conscious people from Colorado, cowboys from Wyoming or Texas, miners from Appalachia, coffee-drinking people from Seattle).
ESSENTIAL ELEMENT	NGS.PR.	Places and Regions
STANDARD	PR.5.	That people create regions to interpret Earth's complexity
STRAND	PR.5.1.	The Concept of Region: Different types of regions are used to organize and interpret areas of Earth’s surface
BENCHMARK	PR.5.1.A.	Identify and explain the criteria used to define formal, functional, and perceptual regions, as exemplified by being able to
EXPECTATION	PR.5.1.A.1.	Identify and explain the bases for the formal region(s), functional region(s), and perceptual region(s) for the community or state where the students live (e.g., for Michigan, the Kalamazoo-Battle Creek Metropolitan Statistical Area is a formal region, the fruit belt in Southwest Michigan is a functional region, Kalamazoo as the snow belt capital of Lake Michigan is a perceptual region).
EXPECTATION	PR.5.1.A.3.	Analyze collected maps with regional labels as examples of formal, functional, or perceptual regions (e.g., maps of physical regions as formal, weather maps as functional, tourist maps as perceptual).
ESSENTIAL ELEMENT	NGS.PR.	Places and Regions
STANDARD	PR.6.	How culture and experience influence people's perceptions of places and regions
STRAND	PR.6.1.	The Perception of Places and Regions: People’s different perceptions of places and regions are influenced by their life experiences
BENCHMARK	PR.6.1.A.	Describe examples of how perceptions of places and regions are based on direct experiences (e.g., living in a place, travel) and indirect experiences (e.g., media, books, family, and friends), as exemplified by being able to
EXPECTATION	PR.6.1.A.1.	Describe students’ perceptions of a place that are based on indirect sources (e.g., television, films, movies, travel brochures).
EXPECTATION	PR.6.1.A.2.	Describe students’ perceptions of a place that are based on direct sources (e.g., visiting the place, multiple visits, or residing in the place).
ESSENTIAL ELEMENT	NGS.PS.	Physical Systems
STANDARD	PS.7.	The physical processes that shape the patterns of Earth's surface
STRAND	PS.7.1.	Components of Earth’s Physical Systems: The four components of Earth’s physical systems (the atmosphere, biosphere, hydrosphere, and lithosphere) are interdependent
BENCHMARK	PS.7.1.A.	Identify and describe patterns in the environment that result from the interaction of Earth’s physical processes, as exemplified by being able to
EXPECTATION	PS.7.1.A.2.	Identify and describe the patterns that result from the connections between climate and vegetation (e.g., examples of patterns of ecosystems and biomes).
ESSENTIAL ELEMENT	NGS.PS.	Physical Systems
STANDARD	PS.8.	The characteristics and spatial distribution of ecosystems and biomes on Earth's surface
STRAND	PS.8.2.	Characteristics and Geographic Distribution of Ecosystems: Physical processes determine the characteristics of ecosystems

BENCHMARK	PS.8.2.A.	Describe and explain how physical processes determine the characteristics of ecosystems, as exemplified by being able to
EXPECTATION	PS.8.2.A.2.	Explain how different locations can have similar ecosystems as a function of temperature, precipitation, elevation, and latitude by using climographs and vegetation maps.
ESSENTIAL ELEMENT	NGS.PS.	Physical Systems
STANDARD	PS.8.	The characteristics and spatial distribution of ecosystems and biomes on Earth's surface
STRAND	PS.8.3.	Characteristics and Geographic Distribution of Biomes: Climate primarily determines the characteristics and geographic distribution of biomes
BENCHMARK	PS.8.3.A.	Describe and explain how climate (temperature and rainfall) primarily determines the characteristics and geographic distribution of biomes, as exemplified by being able to
EXPECTATION	PS.8.3.A.3.	Explain how biomes do not always follow lines of latitude by identifying the influences of oceans and mountain ranges on the distribution of climate and vegetation.
ESSENTIAL ELEMENT	NGS.HS.	Human Systems
STANDARD	HS.12.	The processes, patterns, and functions of human settlement
STRAND	HS.12.3.	Patterns of Settlements: There are patterns of settlements in regions
BENCHMARK	HS.12.3.A.	Compare and explain the location, number, and sizes of settlements in regions, as exemplified by being able to
EXPECTATION	HS.12.3.A.2.	Explain possible reasons why some locations can support more population in settlements than other locations.
EXPECTATION	HS.12.3.A.3.	Compare the settlement patterns in three different regions of the world and describe the particular patterns (e.g., linear patterns, clustered patterns, dispersed patterns).
ESSENTIAL ELEMENT	NGS.ES.	Environment and Society
STANDARD	ES.15.	How physical systems affect human systems
STRAND	ES.15.1.	Environmental Opportunities and Constraints: The characteristics of a physical environment provide opportunities for and impose constraints on human activities
BENCHMARK	ES.15.1.A.	Explain how the characteristics of different physical environments offer opportunities for human activities, as exemplified by being able to
EXPECTATION	ES.15.1.A.1.	Describe and explain the environmental characteristics that people consider when deciding on locations for human activities (e.g., locating a waterwheel at a river's fall line for power, locating a ski resort in a high snowfall area with easy access for recreational skiers, farming on fertile flood plains for high crop yields).
ESSENTIAL ELEMENT	NGS.UG.	The Uses of Geography
STANDARD	UG.17.	How to apply geography to interpret the past
STRAND	UG.17.3.	Perceptions of Geographic Contexts: Historical events were influenced by people's perceptions of places, regions, and environments
BENCHMARK	UG.17.3.A.	Explain how historical events were influenced by people's perceptions of people, places, regions, and environments, as exemplified by being able to
EXPECTATION	UG.17.3.A.1.	Explain how geographic perceptions impacted decisions of and actions by an individual, a group, or a nation (e.g., the perception of land uses and its values leading to the creation and later dissolution of the Indian Territory in the United States, views held resulting in Australia initially being used as a penal colony, perceptions of desert regions as resource-poor changed when oil was discovered).

National Geography Standards (NGS)

Social Studies

Grade **8** - Adopted: **2012**

ESSENTIAL ELEMENT	NGS.WST.	The World in Spatial Terms
STANDARD	WST.1.	How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information

STRAND	WST.1.1.	Properties and Functions of Geographic Representations: The advantages and disadvantages of using different geographic representations—such as maps, globes, graphs, diagrams, aerial and other photographs, remotely sensed images, and geographic visualizations for analyzing spatial distributions and patterns
BENCHMARK	WST.1.1.B.	Evaluate the appropriate use of geospatial representations for specific geographic tasks, such as analyzing spatial distributions and patterns, as exemplified by being able to
EXPECTATION	WST.1.1.B.3.	Compare the patterns shown by geographic representations at different scales (e.g., neighborhood, city, state, country).
ESSENTIAL ELEMENT	NGS.WST.	The World in Spatial Terms
STANDARD	WST.1.	How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information
STRAND	WST.1.4.	Using Geographic Representations: The use of geographic representations to ask and answer geographic questions
BENCHMARK	WST.1.4.A.	Analyze geographic representations to ask and answer questions about spatial distributions and patterns, as exemplified by being able to
EXPECTATION	WST.1.4.A.1.	Analyze printed and digital maps to observe spatial distributions and patterns to generate and answer geographic questions (e.g., use digital census data to determine demographic patterns in a state, or analyze census data and transportation routes to identify and locate services, such as a day-care center or stores needed in a region).
ESSENTIAL ELEMENT	NGS.WST.	The World in Spatial Terms
STANDARD	WST.2.	How to use mental maps to organize information about people, places, and environments in a spatial context
STRAND	WST.2.3.	Using Mental Maps: Mental maps are used to answer geographic questions about locations, characteristics, and patterns of places and regions
BENCHMARK	WST.2.3.A.	Identify from memory and describe the locations, characteristics, and patterns of places and regions to answer geographic questions, as exemplified by being able to
EXPECTATION	WST.2.3.A.1.	Identify from memory and describe the patterns of coastal population density and place characteristics to explain why people may choose to live where they do in the world.
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STRAND	PR.5.1.	The Concept of Region: Different types of regions are used to organize and interpret areas of Earth’s surface
BENCHMARK	PR.5.1.A.	Identify and explain the criteria used to define formal, functional, and perceptual regions, as exemplified by being able to
EXPECTATION	PR.5.1.A.1.	Identify and explain the bases for the formal region(s), functional region(s), and perceptual region(s) for the community or state where the students live (e.g., for

		Michigan, the Kalamazoo-Battle Creek Metropolitan Statistical Area is a formal region, the fruit belt in Southwest Michigan is a functional region, Kalamazoo as the snow belt capital of Lake Michigan is a perceptual region).
EXPECTATION	PR.5.1.A.3.	Analyze collected maps with regional labels as examples of formal, functional, or perceptual regions (e.g., maps of physical regions as formal, weather maps as functional, tourist maps as perceptual).
ESSENTIAL ELEMENT	NGS.PR.	Places and Regions
STANDARD	PR.6.	How culture and experience influence people's perceptions of places and regions
STRAND	PR.6.1.	The Perception of Places and Regions: People's different perceptions of places and regions are influenced by their life experiences
BENCHMARK	PR.6.1.A.	Describe examples of how perceptions of places and regions are based on direct experiences (e.g., living in a place, travel) and indirect experiences (e.g., media, books, family, and friends), as exemplified by being able to
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STANDARD	PS.7.	The physical processes that shape the patterns of Earth's surface
STRAND	PS.7.1.	Components of Earth's Physical Systems: The four components of Earth's physical systems (the atmosphere, biosphere, hydrosphere, and lithosphere) are interdependent
BENCHMARK	PS.7.1.A.	Identify and describe patterns in the environment that result from the interaction of Earth's physical processes, as exemplified by being able to
EXPECTATION	PS.7.1.A.2.	Identify and describe the patterns that result from the connections between climate and vegetation (e.g., examples of patterns of ecosystems and biomes).
ESSENTIAL ELEMENT	NGS.PS.	Physical Systems
STANDARD	PS.8.	The characteristics and spatial distribution of ecosystems and biomes on Earth's surface
STRAND	PS.8.2.	Characteristics and Geographic Distribution of Ecosystems: Physical processes determine the characteristics of ecosystems
BENCHMARK	PS.8.2.A.	Describe and explain how physical processes determine the characteristics of ecosystems, as exemplified by being able to
EXPECTATION	PS.8.2.A.2.	Explain how different locations can have similar ecosystems as a function of temperature, precipitation, elevation, and latitude by using climographs and vegetation maps.
ESSENTIAL ELEMENT	NGS.PS.	Physical Systems
STANDARD	PS.8.	The characteristics and spatial distribution of ecosystems and biomes on Earth's surface
STRAND	PS.8.3.	Characteristics and Geographic Distribution of Biomes: Climate primarily determines the characteristics and geographic distribution of biomes
BENCHMARK	PS.8.3.A.	Describe and explain how climate (temperature and rainfall) primarily determines the characteristics and geographic distribution of biomes, as exemplified by being able to
EXPECTATION	PS.8.3.A.3.	Explain how biomes do not always follow lines of latitude by identifying the influences of oceans and mountain ranges on the distribution of climate and vegetation.
ESSENTIAL ELEMENT	NGS.HS.	Human Systems
STANDARD	HS.12.	The processes, patterns, and functions of human settlement
STRAND	HS.12.3.	Patterns of Settlements: There are patterns of settlements in regions
BENCHMARK	HS.12.3.A.	Compare and explain the location, number, and sizes of settlements in regions, as exemplified by being able to

EXPECTATION	HS.12.3.A.2.	Explain possible reasons why some locations can support more population in settlements than other locations.
EXPECTATION	HS.12.3.A.3.	Compare the settlement patterns in three different regions of the world and describe the particular patterns (e.g., linear patterns, clustered patterns, dispersed patterns).
ESSENTIAL ELEMENT	NGS.ES.	Environment and Society
STANDARD	ES.15.	How physical systems affect human systems
STRAND	ES.15.1.	Environmental Opportunities and Constraints: The characteristics of a physical environment provide opportunities for and impose constraints on human activities
BENCHMARK	ES.15.1.A.	Explain how the characteristics of different physical environments offer opportunities for human activities, as exemplified by being able to
EXPECTATION	ES.15.1.A.1.	Describe and explain the environmental characteristics that people consider when deciding on locations for human activities (e.g., locating a waterwheel at a river's fall line for power, locating a ski resort in a high snowfall area with easy access for recreational skiers, farming on fertile flood plains for high crop yields).
ESSENTIAL ELEMENT	NGS.UG.	The Uses of Geography
STANDARD	UG.17.	How to apply geography to interpret the past
STRAND	UG.17.3.	Perceptions of Geographic Contexts: Historical events were influenced by people's perceptions of places, regions, and environments
BENCHMARK	UG.17.3.A.	Explain how historical events were influenced by people's perceptions of people, places, regions, and environments, as exemplified by being able to
EXPECTATION	UG.17.3.A.1.	Explain how geographic perceptions impacted decisions of and actions by an individual, a group, or a nation (e.g., the perception of land uses and its values leading to the creation and later dissolution of the Indian Territory in the United States, views held resulting in Australia initially being used as a penal colony, perceptions of desert regions as resource-poor changed when oil was discovered).

Main Criteria: Virtual Field Trips
Secondary Criteria: Next Generation Science Standards (NGSS)
Subject: Science
Grades: 4, 5, 6

Virtual Field Trips

Canada: Coast to Coast

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 **6** - Adopted: **2013**

STRAND	**NGSS.MS-ESS**	**EARTH AND SPACE SCIENCE**
TITLE	**MS-ESS2**	**Earth's Systems**
		Students who demonstrate understanding can:
PERFORMANCE EXPECTATION	**MS-ESS2-5**	**Collect data to provide evidence for how the motions and complex interactions of air masses results in changes in weather conditions.**
STRAND	**NGSS.MS-ESS**	**EARTH AND SPACE SCIENCE**
TITLE	**MS-ESS3**	**Earth and Human Activity**
		Students who demonstrate understanding can:
PERFORMANCE EXPECTATION	**MS-ESS3-1**	**Construct a scientific explanation based on evidence for how the uneven distributions of Earth's mineral, energy, and groundwater resources are the result of past and current geoscience processes.**

Main Criteria: Virtual Field Trips
Secondary Criteria: Next Generation Science Standards (NGSS)
Subject: Science
Grades: 7, 8

Virtual Field Trips

Canada: Coast to Coast

Next Generation Science Standards (NGSS)

Science

Grade **7** - Adopted: **2013**

STRAND	**NGSS.MS-ESS**	**EARTH AND SPACE SCIENCE**
TITLE	**MS-ESS2**	**Earth's Systems**
		Students who demonstrate understanding can:
PERFORMANCE EXPECTATION	**MS-ESS2-5**	**Collect data to provide evidence for how the motions and complex interactions of air masses results in changes in weather conditions.**
STRAND	**NGSS.MS-ESS**	**EARTH AND SPACE SCIENCE**
TITLE	**MS-ESS3**	**Earth and Human Activity**
		Students who demonstrate understanding can:
PERFORMANCE EXPECTATION	**MS-ESS3-1**	**Construct a scientific explanation based on evidence for how the uneven distributions of Earth's mineral, energy, and groundwater resources are the result of past and current geoscience processes.**

Next Generation Science Standards (NGSS)

Science

Grade **8** - Adopted: **2013**

STRAND	**NGSS.MS-ESS**	**EARTH AND SPACE SCIENCE**
TITLE	**MS-ESS2**	**Earth's Systems**
		Students who demonstrate understanding can:
PERFORMANCE EXPECTATION	**MS-ESS2-5**	**Collect data to provide evidence for how the motions and complex interactions of air masses results in changes in weather conditions.**
STRAND	**NGSS.MS-ESS**	**EARTH AND SPACE SCIENCE**
TITLE	**MS-ESS3**	**Earth and Human Activity**
		Students who demonstrate understanding can:
PERFORMANCE EXPECTATION	**MS-ESS3-1**	**Construct a scientific explanation based on evidence for how the uneven distributions of Earth's mineral, energy, and groundwater resources are the result of past and current geoscience processes.**