Michigan Grade Level Content Expectations

Science Grades 6-7:

- Demonstrate scientific concepts through illustrations, performances, models, exhibits, and activities. **S.RS.M15**
- Describe the effect humans and other organisms have on the balance of the natural world. **S.RS.M17**
- Demonstrate, using a model or drawing, the relationship between warming by the sun and of the Earth and the water cycle as it applies to the atmosphere. **E.ES.07.11**
- Explain the water cycle and describe how evaporation, transpiration, condensation, cloud formation, precipitation, infiltration, surface runoff, ground water, and absorption occur within the cycle. **E.ES.07.81**
- Analyze the flow of water between components of a watershed, including surface features and groundwater. **E.ES.07.82**

Math Grades 6-7:

- Calculate part of a number given the percentage and the number. **N.FL.06.12**
- Solve word problems involving percentages. **N.FL.06.13**
- Express probabilities as fractions, decimals, or percentages between 0 and 1; know that "0" probability means that an event will not occur, and probability "1" means an event will occur. **D.PR.06.01**
- Compute probabilities of events from simple experiments with equally likely outcomes, e.g. tossing dice, flipping coins, etc. by listing all possibilities and finding the fraction that meets given conditions. **D.PR.06.02**

1

Social Studies Grade 6-7:

- Use historical perspective to analyze global issues faced by humans long ago and today. **6 - H1.4.3**
- Describe the environmental effects of human action on the atmosphere, biosphere, lithosphere and hydrosphere. **6 - G5.1.1**
- Explain that communities are affected positively or negatively by changes in technology. **7 - G2.2.2**
- Identify and explain factors (e.g. natural resources) that contribute to conflict and cooperation between and among cultural groups **7 - G4.4.1**
- Describe the effects that a change in the physical environment could have on human activities and the choices people would have to make in adjusting to the change. **7 - G5.2.1**

HS Earth Science:

- Describe that the water cycle includes evaporation, transpiration, condensation, precipitation, infiltration, surface runoff, groundwater, and absorption. **E4.p1A**
- Compare and contrast surface water systems and groundwater in regard to their relative sizes as Earth's freshwater reservoirs and the dynamics of water movement (inputs, outputs, residence times, sustainability). **E4.1A**
- Scientific Reflection and Social Implications (See HSCEs listed for Earth Science). **BI.2**

Science Grades 6-7:

- Predict possible consequences of overpopulation of organisms, including humans. **6-L.E.C.06.42, 7-L.E.C.06.42**

Social Studies:

- Use data to create thematic maps and graphs showing patterns of population, rainfall, etc., analyze the patterns about location and density of population. **6 - GI.2.3, 7 - GI.2.3**
- Apply the skills of geographic inquiry to analyze a problem or issue of importance to a region of the W. Hemisphere. **6 - GI.2.6, 7 - GI.2.6.**
- Contemporary investigations – Conduct research on contemporary global topics and issues, compose persuasive essays, and develop a plan for action. **6 - G6.1.1, 7 - G6.1.1.**
- Clearly state an issue as a question or public policy, trace the origins of the issue, analyze various perspectives, and generate and evaluate alternate resolutions. **6 - P3.1.1, 7 - P3.1.1**

2

Math Grades 6-8:

- Represent and interpret data using circle graphs, etc. and select appropriate representations to address specific questions. **D.RE.07.01**

HS Earth Science:

- Analyze how science and society interact from a historical, political, economic, or social perspective. **E1.2k**

3

Science Grades 6-7:

- Identify the living (biotic) and nonliving (abiotic) components of an ecosystem. **L.EC.06.31**
- Describe the origins of pollution in the atmosphere, geosphere, and hydrosphere and how pollution impacts habitats, climatic change, threatens or endangers species. **E.ES.07.42**
- Analyze the flow of water between components of a watershed, including surface features and groundwater. **E.ES.07.82**

Social Studies Grades 6-8:

- Describe the environmental effects of human action on the atmosphere, biosphere, lithosphere and hydrosphere. **6- G5.1.1, 7-G5.1.1**
- Describe how variations in technology affect human modifications of the landscape. **7- G5.1.2**
- Identify the ways in which human-induced changes in the physical environment in one place can cause changes in other places **7- G5.1.3**
- Describe the effects that a change in the physical environment could have on human activities and the choices people would have to make in adjusting to the change. **7- G5.2.1**

HS Earth Science:

- Explain how the impact of human activities on the environment can be understood through the analysis of interactions between the four major Earth systems. **E2.4B**
- Explain how physical and chemical weathering leads to erosion and the formation of soils and sediments. **E3.p1B**
- Describe that the water cycle includes evaporation, transpiration, condensation, precipitation, infiltration, surface runoff, groundwater, and absorption **E4.p1A**
- Analyze the flow of water within a watershed, including surface features and groundwater. **E4.p1B**
- Describe the river and stream types, features, and processes as they occur naturally and as they are impacted by land use decisions. **E4.p1C**
- Explain the types, process, and beneficial functions of wetlands. **E4.p1D**
- Compare and contrast surface water systems and groundwater in regard to their relative sizes as Earth's freshwater reservoirs and the dynamics of water movement **E4.1A**
- Explain how water quality in both groundwater and surface systems is impacted by land use decisions. **E4.1C**

4

Science Grade 6-7:

- Scientific Inquiry and Scientific Reflection and Social Implications **MGLCEs Gr. 6-7**
- Design solutions to problems through technology (e.g. best management practices). **S.RS.M16**
- Describe the effect humans and other organisms have on the balance of the natural world. **S.RS.M17**
- Describe how human beings are part of the ecosystem of the Earth and that human activity can purposefully, or accidentally, alter the balance of the ecosystem. **L.EC.06.41**
- Explain how physical and chemical weathering lead to erosion and the formation of soils and sediments. **E.SE.06.11**
- Explain how waves, wind, water, and glacier movement shape and reshape the land surface of the Earth by eroding rock and deposition sediments (stream turbidity and channel bottom materials). **E.SE.06.12, E.ES.07.41**
- Explain how human activities change the surface of the earth and affect the survival of organisms. **E.ES.07.42**
- Describe the origins of pollution in the atmosphere, geosphere, and hydrosphere and how pollution impacts habitats, climatic change, threatens or endangers species. **E.ES.07.42**

Social Studies Grades 6-8:

- Explain that communities are affected positively or negatively by changes in technology. **6 - G2.2.2.**
- Describe the environmental effects of human action on the atmosphere, biosphere, lithosphere and hydrosphere. **6 - G5.1.1**
- Contemporary investigations – Conduct research on contemporary global topics and issues, compose persuasive essays, and develop a plan for action. **6 - G6.1.1**
- Participate in projects to help or inform others (e.g. service learning projects). **7- P4.2.3, 8 - P4.2.3**

HS Earth Science:

- Scientific Inquiry and Scientific Reflection and Social Implications HSCEs
- Identify scientific tradeoffs in design decisions and choose among alternative solutions. **E1.2g**
- Explain how physical and chemical weathering leads to erosion and the formation of soils and sediments. **E3.p1B**
- Analyze the flow of water within a watershed, including surface features (lakes, stream, rivers, wetlands) and groundwater. **E4.p1B**
- Describe the river and stream types, features, and processes (e.g. cycles of flooding, erosion, deposition) as they occur naturally and as they are impacted by land use decisions. **E4.p1D**
- Explain the types, process, and beneficial functions of wetlands. **E4.p1C**
- Explain how water quality in both groundwater and surface systems is impacted by land use decisions. **E4.1C**
- Examine the negative impact of human activities. **B3.4C**

Science Grades 6-7:

- Explain how human activities change the surface of the earth and affect the survival of organisms. **E.ES.07.41**
- Describe the origins of pollution in the atmosphere, geosphere, and hydrosphere (car exhaust, industrial emissions, acid rain and **E.ES.07.42**
- natural sources) and how pollution impacts habitats, climatic change, threatens or endangers species
- Explain the water cycle and describe how evaporation, transpiration, condensation, cloud formation, precipitation, infiltration, surface runoff, ground water, and absorption occur within the cycle. **E.ES.07.81**

Social Studies Grades 6-8:

- Explain that communities are affected positively or negatively by changes in technology. **6 - G2.2.2**
- Describe the environmental effects of human action on the atmosphere, biosphere, lithosphere and hydrosphere. **6 - G5.1.1**
- Contemporary investigations – Conduct research on contemporary global topics and issues, compose persuasive essays, and develop a plan for action. **SS 6 - G6.1.1**

5

- Describe the environmental effects of human action on the atmosphere, biosphere, lithosphere and hydrosphere. **7 - G5.1.1**
- Describe how variations in technology affect human modifications of the landscape. **7 - G5.1.2**
- Identify the ways in which human-induced changes in the physical environment in one place can cause changes in other places (e.g. cutting forests upstream can cause flooding downstream). **7 - G5.1.3**
- Describe the effects that a change in the physical environment could have on human activities and the choices people would have to make in adjusting to the change. **7 - G5.2.1**
- Participate in projects to help or inform others (e.g. service learning projects). **8 - P4.2.3**

HS Earth Science:

- Compare and contrast surface water systems and groundwater . **E4.1A**
- Explain the features and processes of groundwater systems and how the sustainability of No. American aquifers has changed. **E4.1B.**
- Explain how water quality in both groundwater and surface systems is impacted by land use decisions. **E4.1C**

Science Grades 6-7:

- Describe the origins of pollution in the atmosphere, geosphere, and hydrosphere and how pollution impacts habitats, climatic change, threatens or endangers species. **E.ES.07.42**
- Analyze the flow of water between components of a watershed, including surface features (lakes, streams, rivers, wetlands) and groundwater **E.ES.07.82**

Social Studies Grades 6-8:

- Clearly state an issue as a question or public policy, trace the origins of the issue, analyze various perspectives, and generate and evaluate alternate resolutions **6 - P3.1.1, 7 - P3.1.1**
- Demonstrate knowledge of how, when, and where individuals would plan and conduct activities intended to advance views in matters of public policy, report the results, and evaluate effectiveness. **6 - P4.2.1**
- Identify the role of the individual in history and the significance of one person's ideas **7 - H1.2.6**
- Describe the environmental effects of human action on the atmosphere, biosphere, lithosphere and hydrosphere. **7 - G5.1.1**

6

- Explain how governments address national issues and form policies, and how the policies may not be consistent with those of other countries. **7-C4.3.1**

Math Grades 6-8:

- Understand division of fractions as the inverse of multiplication. **N.MR.06.01**
- Given an applied situation involving dividing fractions, write a mathematical statement to represent the situation. **N.FL.06.02**

HS Earth Science:

- Explain how water quality in both groundwater and surface systems is impacted by land use decisions. **E4.1C**

HS Biology:

- Examine the negative impact of human activities. **B3.4C**
- Recognize and describe how the physical or chemical environment may influence the rate, extent, and nature of population dynamics within ecosystems. **B3.5e**

Science Grade 6-7:

- Describe the effect humans and other organisms have on the balance of the natural world. **S.RS.M17**
- Classify organisms based on their source of energy for growth and development. **L.0L.06.51**
- Classify substances by their chemical properties **P.PM.07.11**
- List examples of physical and chemical properties of elements and compounds. **P.PM.07.24**
- Identify evidence of chemical change (e.g. water quality testing). **P.CM.07.21**
- Describe evidence that plants make, use and store food. **L.0L.07.63**
- Explain how human activities change the surface of the earth and affect the survival of organisms. **E.ES.07.41**
- Describe the origins of pollution in the atmosphere, geosphere, and hydrosphere and how pollution impacts habitats, climatic change, threatens or endangers species. **E.ES.07.42**
- Analyze the flow of water between components of a watershed, including surface features and groundwater. **E.ES.07.82**

Social Studies Grades 6-8:

- Describe the environmental effects of human action on the atmosphere, biosphere, lithosphere and hydrosphere. **6 – G5.1.1, 7 – G5.1.1**
- Engage in activities intended to contribute to solving a national or international problem. **6 – P4.2.2, 7 – P4.2.2, 8 – P4.2.2**
- Read and interpret data in tables and graph. **P2.2**
- Describe the effects that a change in the physical environment could have on human activities and the choices people would have to make in adjusting to the change. **7 - G5.2.1**
- Participate in projects to help or inform others (e.g. service learning projects). **7 - P4.2.3, 8 - P4.2.3**

7

HS Earth Science:

- Generate new questions that can be investigated in the lab or field. **E1.1A**
- Evaluate the uncertainties or validity of scientific conclusions **E1.1B**
- Conduct scientific investigations using appropriate tools and techniques. **E1.1C**
- Describe a reason for a given conclusion using evidence from an investigation. **E1.1E**
- Predict what would happen if variables, methods, or timing were changed **E1.1f**
- Based on empirical evidence, explain and critique the reasoning used to draw a scientific conclusion. **E1.1g**
- Design and conduct a systematic scientific investigation. **E1.1h**
- Critique whether specific questions can be answered through scientific investigations. **E1.2A**
- Evaluate scientific explanations in a peer review process or discussion format. **E1.2D**
- Explore future career and occupational opportunities of science fields. **E1.2E**
- Explain how water quality in both groundwater and surface systems is impacted by land use decisions. **E4.1C**

HS Biology:

- Scientific Inquiry (See HSCEs listed for Earth Science) **BI.1**
- Scientific Reflection and Social Implications (See HSCEs listed for Earth Science) **BI.2**
- Draw the flow of energy through an ecosystem. Predict changes in the food web when one or more organisms are removed. **B3.2C**
- Examine the negative impact of human activities. **B3.4C**
- Recognize that and describe how the physical or chemical environment may influence the rate, extent, and nature of population dynamics within ecosystems. **B3.5e**

Science Grades 6-7:

- Explain how human activities change the surface of the earth and affect the survival of organisms. **E.ES.07.41**
- Describe the origins of pollution in the atmosphere, geosphere, and hydrosphere and how pollution impacts habitats, climatic change, threatens or endangers species. **E.ES.07.42**
- Analyze the flow of water between components of a watershed, including surface features and groundwater. **E.ES.07.82**

Social Studies Grades 6-8:

- Use observations from air photos, etc. as the basis for answering geographic questions about the human and physical characteristics of places and regions. **7 - GI.2.3**
- Describe the environmental effects of human action on the atmosphere, biosphere, lithosphere and hydrosphere. **7 - G5.1.1**

8

- Describe how variations in technology affect human modifications of the landscape. **7 - G5.1.2**
- Identify the ways in which human-induced changes in the physical environment in one place can cause changes in other places (e.g. cutting forests upstream can cause flooding downstream). **7 - G5.1.3**
- Describe the effects that a change in the physical environment could have on human activities and the choices people would have to make in adjusting to the change. **7-G5.2.1**

Math Grades 6-8:

- Relate simple linear equations with integer coefficients, e.g. 3x=8 or x+5=10 A.FO.06.11

HS Earth Science:

- Examine the negative impact of human activities. **B3.4C**
- Recognize that and describe how the physical or chemical environment may influence the rate, extent, and nature of population dynamics within ecosystems. **B3.5e**

Science Grades 6-7:

- Explain how human activities change the surface of the earth and affect the survival of organisms. **E.ES.07.41**
- Analyze the flow of water between components of a watershed, including surface features (lakes, streams, rivers, wetlands) and groundwater. **E.ES.07.82**

Social Studies Grades 6-8:

- Conduct research on contemporary global topics and issues, compose persuasive essays, and develop a plan for action. **6 - G6.1.1**
- Clearly state an issue as a question or public policy, trace the origins of the issue, analyze various perspectives, and generate and evaluate alternate resolutions. **6 - P3.1.1**
- Demonstrate knowledge of how, when, and where individuals would plan and conduct activities intended to advance views in matters of public policy, report the results, and evaluate effectiveness. **6 - P4.2.1**
- Engage in activities intended to contribute to solving a national or international problem. **6 - P4.2.2**
- Participate in projects to help or inform others. **6 - P4.2.3**
- Identify and explain factors that contribute to conflict and cooperation between and among cultural groups. **7 - G4.4.1**
- Describe the environmental effects of human action on the atmosphere, biosphere, lithosphere and hydrosphere. **7 - G5.1.1**
- Identify the ways in which human-induced changes in the physical environment in one place can cause changes in other places (e.g. cutting forests upstream can cause flooding downstream). **7 - G5.1.3**
- Describe the effects that a change in the physical environment could have on human activities and the choices people would have to make in adjusting to the change. **7 - G5.2.1**
- Contemporary investigations – Conduct research on contemporary global topics and issues, compose persuasive essays, and develop a plan for action **7 - G6.1.1**
- Clearly state an issue as a question of public policy, trace the origins of the issue, analyze various perspectives, and generate and evaluate alternate resolutions. **7 - P3.1.1**

HS Earth Science:

- Explain why small amounts of some chemicals may be beneficial for life but are poisonous in large quantities. **E2.3b**
- Explain how the impact of human activities on the environment can be understood through the analysis of interactions between the four major Earth systems. **E2.4B**
- Explain how water quality in both groundwater and surface systems is impacted by land use decisions. **E4.1C**
- Draw the flow of energy through an ecosystem. Predict changes in the food web when one or more organisms are removed. **B3.2C**
- Examine the negative impact of human activities. **B3.4C**

Michigan Grade Level Content Expectations Correlation for Water Quality Unit

X- Addresses/Supports

			1. Where Is All the Water in the World?	2. How We Use Water	3. Do You Know YOUR Watershed?	4. How Do Land Uses Affect Water Quality?	5. Why Care About Groundwater?	6. Would You Drink This Water?	7. How Healthy Is This Stream?	8. How Can We Stop Storm Water?	9. Bioaccumulation and the Great Lakes Ecosystem
SCIENCE	Grades 6-7 Science	**S.RS.M15** Demonstrate scientific concepts through illustrations, performances, models, exhibits, and activities.	X								
		S.RS.M16 Design solutions to problems through technology (e.g. best management practices).				X					
		S.RS.M17 Describe the effect humans and other organisms have on the balance of the natural world.	X			X			X		
		E.SE.06.11 Explain how physical and chemical weathering lead to erosion and the formation of soils and sediments.				X					
		E.SE.06.12, E.ES.07.41 Explain how waves, wind, water, and glacier movement shape and reshape the land surface of the Earth by eroding rock and deposition sediments (stream turbidity and channel bottom materials).				X					
		E.ES.07.11 Demonstrate, using a model or drawing, the relationship between warming by the sun and of the Earth and the water cycle as it applies to the atmosphere.	X								
		E.ES.07.41 Explain how human activities change the surface of the earth and affect the survival of organisms.					X		X	X	X
		E.ES.07.42 Describe the origins of pollution in the atmosphere, geosphere, and hydrosphere and how pollution impacts habitats, climatic change, threatens or endangers species.			X	X	X	X	X	X	
		E.ES.07.42 Explain how human activities change the surface of the earth and affect the survival of organisms.				X					
		E.ES.07.81 Explain the water cycle and describe how evaporation, transpiration, condensation, cloud formation, precipitation, infiltration, surface runoff, ground water, and absorption occur within the cycle.	X				X				
		E.ES.07.82 Analyze the flow of water between components of a watershed, including surface features and groundwater.	X		X			X	X	X	X
		6-L.E.C.06.42, 7-L.E.C.06.42 Predict possible consequences of overpopulation of organisms, including humans.		X							
		L.0L.06.51 Classify organisms based on their source of energy for growth and development.							X		
		L.0L.07.63 Describe evidence that plants make, use and store food.							X		
		L.EC.06.31 Identify the living (biotic) and nonliving (abiotic) components of an ecosystem.			X						
		L.EC.06.41 Describe how human beings are part of the ecosystem of the Earth and that human activity can purposefully, or accidentally, alter the balance of the ecosystem.				X					
		MGLCEs Gr. 6-7 Scientific Inquiry and Scientific Reflection and Social Implications**.**				X					
		P.CM.07.21 Identify evidence of chemical change (e.g. water quality testing).							X		
		P.PM.07.11 Classify substances by their chemical properties.							X		
		P.PM.07.24 List examples of physical and chemical properties of elements and compounds.							X		

Michigan Grade Level Content Expectations (continued) **Correlation for Water Quality Unit** X- Addresses/Supports			Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5	Lesson 6	Lesson 7	Lesson 8	Lesson 9
SCIENCE	HS Earth Science	**E1.1A** Generate new questions that can be investigated in the lab or field.							X		
		E1.1B Evaluate the uncertainties or validity of scientific conclusions.							X		
		E1.1C Conduct scientific investigations using appropriate tools and techniques.							X		
		E1.1E Describe a reason for a given conclusion using evidence from an investigation.							X		
		E1.1f Predict what would happen if variables, methods, or timing were changed							X		
		E1.1g Based on empirical evidence, explain and critique the reasoning used to draw a scientific conclusion.							X		
		E1.1h Design and conduct a systematic scientific investigation.							X		
		E1.2A Critique whether specific questions can be answered through scientific investigations.							X		
		E1.2D Evaluate scientific explanations in a peer review process or discussion format.							X		
		E1.2E Explore future career and occupational opportunities of science fields.							X		
		E1.2g Identify scientific tradeoffs in design decisions and choose among alternative solutions.				X					
		E1.2k Analyze how science and society interact from a historical, political, economic, or social perspective.		X							
		E2.3b Explain why small amounts of some chemicals may be beneficial for life but are poisonous in large quantities.									X
		E2.4B Explain how the impact of human activities on the environment can be understood through the analysis of interactions between the four major Earth systems.			X						X
		E3.p1B Explain how physical and chemical weathering leads to erosion and the formation of soils and sediments.			X	X					
		E4.p1A Describe that the water cycle includes evaporation, transpiration, condensation, precipitation, infiltration, surface runoff, groundwater, and absorption.	X		X						
		E4.p1B Analyze the flow of water within a watershed, including surface features and groundwater.			X	X					
		E4.p1C Describe the river and stream types, features, and processes as they occur naturally and as they are impacted by land use decisions.			X	X					
		E4.p1D Explain the types, process, and beneficial functions of wetlands.			X	X					
		E4.1A Compare and contrast surface water systems and groundwater in regard to their relative sizes as Earth's freshwater reservoirs and the dynamics of water movement (inputs, outputs, residence times, sustainability).	X		X		X				
		E4.1B Explain the features and processes of groundwater systems and how the sustainability of No. American aquifers has changed.					X				
		E4.1C Explain how water quality in both groundwater and surface systems is impacted by land use decisions.			X	X	X	X	X		X
		BI.2 Scientific Reflection and Social Implications (See HSCEs listed for Earth Science).	X			X					
		B3.4C Examine the negative impact of human activities.				X		X	X	X	X

Michigan Grade Level Content Expectations (continued) **Correlation for Water Quality Unit** X- Addresses/Supports			Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5	Lesson 6	Lesson 7	Lesson 8	Lesson 9
SCIENCE	HS Biology	**BI.1** Scientific Inquiry (See HSCEs listed for Earth Science)							X		
		BI.2 Scientific Reflection and Social Implications. (See HSCEs listed for Earth Science)							X		
		B3.2C Draw the flow of energy through an ecosystem. Predict changes in the food web when one or more organisms are removed.							X		X
		B3.5e Recognize and describe how the physical or chemical environment may influence the rate, extent, and nature of population dynamics within ecosystems.						X	X	X	
SOCIAL STUDIES	Grades 6-7 Social Studies	**6 - G5.1.1** Describe the environmental effects of human action on the atmosphere, biosphere, lithosphere and hydrosphere.	X			X	X				
		6 - G6.1.1, 7 - G6.1.1 Contemporary investigations – Conduct research on contemporary global topics and issues, compose persuasive essays, and develop a plan for action.		X							
		6 - GI.2.3, 7 - GI.2.3 Use data to create thematic maps and graphs showing patterns of population, rainfall, etc., analyze the patterns about location and density of population.		X							
		6 - GI.2.6, 7 - GI.2.6 Apply the skills of geographic inquiry to analyze a problem or issue of importance to a region of the W. Hemisphere.		X							
		6 - H1.4.3 Use historical perspective to analyze global issues faced by humans long ago and today.	X								
		6 - P3.1.1, 7 - P3.1.1 Clearly state an issue as a question or public policy, trace the origins of the issue, analyze various perspectives, and generate and evaluate alternate resolutions.		X				X			
		7 - G2.2.2 Explain that communities are affected positively or negatively by changes in technology.	X								
		7 - G4.4.1 Identify and explain factors (e.g. natural resources) that contribute to conflict and cooperation between and among cultural groups.	X								X
		7 - G5.2.1 Describe the effects that a change in the physical environment could have on human activities and the choices people would have to make in adjusting to the change.	X		X		X			X	X
	Grades 6-8 Social Studies	**6 - G2.2.2** Explain that communities are affected positively or negatively by changes in technology.				X	X				
		6- G5.1.1, 7-G5.1.1 Describe the environmental effects of human action on the atmosphere, biosphere, lithosphere and hydrosphere.			X				X	X	
		6 - G6.1.1 Conduct research on contemporary global topics and issues, compose persuasive essays, and develop a plan for action.				X					X
		6 - P3.1.1 Clearly state an issue as a question or public policy, trace the origins of the issue, analyze various perspectives, and generate and evaluate alternate resolutions.									X
		6 - P4.2.1 Demonstrate knowledge of how, when, and where individuals would plan and conduct activities intended to advance views in matters of public policy, report the results, and evaluate effectiveness.						X			X
		6 - P4.2.2 Engage in activities intended to contribute to solving a national or international problem.									X

Michigan Grade Level Content Expectations (continued) **Correlation for Water Quality Unit** X- Addresses/Supports			Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5	Lesson 6	Lesson 7	Lesson 8	Lesson 9
SOCIAL STUDIES	Grades 6-8 Social Studies (continued)	**6 - P4.2.3** Participate in projects to help or inform others.									X
		6 – P4.2.2, 7 – P4.2.2, 8 – P4.2.2 Engage in activities intended to contribute to solving a national or international problem.							X		
		7 - GI.2.3 Use observations from air photos, etc. as the basis for answering geographic questions about the human and physical characteristics of places and regions.								X	
		7-C4.3.1 Explain how governments address national issues and form policies, and how the policies may not be consistent with those of other countries.						X			
		7 - G5.1.1 Describe the environmental effects of human action on the atmosphere, biosphere, lithosphere and hydrosphere.					X	X			X
	Grades 6-8 Social Studies	**7- G5.1.2** Describe how variations in technology affect human modifications of the landscape.			X		X			X	
		7- G5.1.3 Identify the ways in which human-induced changes in the physical environment in one place can cause changes in other places (e.g. cutting forests upstream can cause flooding downstream).			X		X			X	X
		7 - G5.2.1 Describe the effects that a change in the physical environment could have on human activities and the choices people would have to make in adjusting to the change.							X		
		7 - G6.1.1 Contemporary investigations – Conduct research on contemporary global topics and issues, compose persuasive essays, and develop a plan for action.									X
		7 - H1.2.6 Identify the role of the individual in history and the significance of one person's ideas						X			
		7 - P3.1.1 Clearly state an issue as a question of public policy, trace the origins of the issue, analyze various perspectives, and generate and evaluate alternate resolutions.									X
		7 - P4.2.3, 8 - P4.2.3 Participate in projects to help or inform others (e.g. service learning projects).				X			X		
		8 - P4.2.3 Participate in projects to help or inform others (e.g. service learning projects).					X				
		P2.2 Read and interpret data in tables and graph.							X		
		SS 6 - G6.1.1 Contemporary investigations – Conduct research on contemporary global topics and issues, compose persuasive essays, and develop a plan for action.					X				

Michigan Grade Level Content Expectations (continued) **Correlation for Water Quality Unit** X- Addresses/Supports			Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5	Lesson 6	Lesson 7	Lesson 8	Lesson 9
MATH	Math Grades 6-7	**N.FL.06.12** Calculate part of a number given the percentage and the number.	X								
		N.FL.06.13 Solve word problems involving percentages.	X								
		D.PR.06.01 Express probabilities as fractions, decimals, or percentages between 0 and 1; know that "0" probability means that an event will not occur, and probability "1" means an event will occur.	X								
		D.PR.06.02 Compute probabilities of events from simple experiments with equally likely outcomes, e.g. tossing dice, flipping coins, etc. by listing all possibilities and finding the fraction that meets given conditions.	X								
	Math Grades 6-8	**D.RE.07.01** Represent and interpret data using circle graphs, etc. and select appropriate representations to address specific questions.		X							
		N.MR.06.01 Understand division of fractions as the inverse of multiplication.						X			
		N.FL.06.02 Given an applied situation involving dividing fractions, write a mathematical statement to represent the situation.						X			
		A.FO.06.11 Relate simple linear equations with integer coefficients, e.g. 3x=8 or x+5=10.								X	