

**Michigan Content Expectations - SCIENCE
Grade 4-6
MEECS Ecosystems & Biodiversity Unit**

X- Addresses/supports

DRAFT
(3/6/08)

		1 Ecosystem Basics	2 It's All Connected!	3 Nature's Recycling (Part A)	3 Nature's Recycling (Part B)	3 Nature's Recycling (Part C)	4 Michigan Ecosystems: What have they done for You lately?	5 Michigan Time Machine	6 Michigan's Web of Life	7 Biodiversity Survey	8 Threats and Protections to Michigan Biodiversity	9 Most Unwanted: Invaders of the Great Lakes Region	10 Michigan's Threatened Species
GRADE 4 - SCIENCE	S.IP.E.1 Inquiry involves generating questions, conducting investigations, and developing solutions to problems based on reasoning and observation.												
	S.IP.04.11 Make purposeful observation of the natural world using the appropriate senses.									X			
	S.IP.04.12 Generate scientific questions based on observations.		X						X				
	S.IP.04.13 Plan and conduct simple and fair investigations.			X	X	X				X			
	S.IP.04.14 Manipulate simple tools that aid observation and data collection.					X				X			
	S.IP.04.15 Make accurate measurements with appropriate units for the measurement tool.					X							
	S.IP.04.16 Construct charts and graphs from data and observations.					X				X			
	S.IA.E.1 Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.												
	S.IA.04.11 Summarize information from charts and graphs to answer scientific questions.	X								X			X
	S.IA.04.12 Share ideas about science through purposeful conversation in collaborative groups.	X	X	X	X	X	X	X	X	X		X	
	S.IA.04.13 Communicate and present findings of observations and investigations.		X							X		X	X
	S.IA.04.14 Develop research strategies and skills for information gathering and problem solving.											X	X
	S.IA.04.15 Compare and contrast sets of data from multiple trials of a science investigation to explain reasons for differences.			X	X	X				X			
	S.RS.E1 Reflecting on knowledge is the application of scientific knowledge to new and different situations. Reflecting on knowledge requires careful analysis of evidence that guides decision-making and the application of science throughout history and within society.												
	S.RS.04.11 Demonstrate scientific concepts through various illustrations, performance models, exhibits, and activities.	X	X	X	X	X	X	X	X	X	X	X	X
	S.RS.04.14 Use data/samples as evidence to separate fact from opinion.			X	X	X				X			
	S.RS.04.15 Use evidence when communicating scientific ideas.			X	X	X				X			
	S.RS.04.18 Describe the effect humans and other organisms have on the balance of the natural world.		X	X	X	X			X	X		X	X
S.RS.06.16 Describe how people have contributed to science throughout history and across cultures.							X			X			

L.EC.M.3 Biotic and Abiotic Factors – The number of organisms and populations an ecosystem can support depends on the biotic (living) resources available and abiotic (nonliving) factors, such as quality of light and water, range of temperatures and soil composition.													
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 in ecosystems.	x						x			x	x		
L.EC.06.42 Predict possible consequences of overpopulation of organisms, including humans.		x											
E.SE.M.1. Soil – Soils consist of weathered rocks and decomposed organic materials from dead plants, animals, and bacteria. Soils are often found in layers with each having a different chemical composition and texture.													
E.SE.06.13 Describe how soil is a mixture, made up of weather eroded rock and decomposed organic matter.					x								

**Michigan Content Expectations – SOCIAL STUDIES
Grade 4-6
MEECS Ecosystems & Biodiversity Unit**

X- Addresses/supports

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		1 Ecosystem Basics	2 It's All Connected!	3 Nature's Recycling (Part A)	3 Nature's Recycling (Part B)	3 Nature's Recycling (Part C)	4 Michigan Ecosystems: What have they done for You lately?	5 Michigan Time Machine	6 Michigan's Web of Life	7 Biodiversity Survey	8 Threats and Protections to Michigan Biodiversity	9 Most Unwanted: Invaders of the Great Lakes Region	10 Michigan's Threatened Species
GRADE 4 – Social Studies	GRADE 4												
	H3 History of Michigan (Beyond Statehood)												
	4-H3.0.3 Describe how the relationship between the location of natural resources and the location of industries (after 1837) affected and continues to affect the location and growth of Michigan cities.							x					
	4-H3.0.4 Draw upon stories, photos, artifacts, and other primary sources to compare the life of people in towns and cities in Michigan and in the Great Lakes region during a variety of time periods from 1837 to the present.							x					
	4-H3.0.8 Describe past and current threats to Michigan's natural resources; describe how Michigan worked in the past and continues to work today to protect its natural resources.							x			x	x	
	4-H3.0.9 Create timelines (using decades after 1930) to sequence and describe important events in Michigan history; annotate with connections to the past and impact on the future.							x			x		
	G5 Environment and Society												
	4-G5.0.1 Assess the positive and negative effects of human activities on the physical environment of the United States.										x		
	C5. Roles of the Citizen in American Democracy												
	4-C5.01 Explain the responsibilities of citizenship (e.g. initiating changes in law or policy, holding public office, respecting the law, being informed and attentive to public issues, paying taxes, registering to vote and voting knowledgeably, serving as a juror).									x		x	x
4-C5.04 Describe ways citizens can work together to promote the values and principles of American democracy.							x			x			
GRADE 5 – Social Studies	GRADE 5												
	UI. I American Indian Life in the Americas												
	50UI.1.3 Describe Eastern Woodland American Indian life with respect to government and family structures. Trade, and views on property ownership and land use.							x					
	UI.4 Three World Interactions												
	5-UI.4.1 Describe the convergence of Europeans, American Indians and Africans in North American after 1492 from the perspective of these three groups.							x					
5-UI.4.2 Use primary and secondary sources to compare Europeans and American Indians who converged in the western hemisphere after 1492 with respect to governmental structure, and views on property ownership and land use.							x						
P3.3 Persuasive Communication about a Public Issue													
5-P3.3.1 Compose a brief essay expressing a position on a public policy issue in the United States and justify the position with a reasoned argument.										x			

GRADE 6 – Social Studies	P.4.2 Citizen Involvement															
	5-P4.2.1 Develop and implement an action plan and know how, when, and where to address or inform others about a public issue.											X		X	X	
	5-P4.2.2 Participate in projects to help or inform others.											X		X	X	
	GRADE 6															
	H3 Historical Inquiry and Analysis															
	6-H.1.2.3 Identify the point of view (perspective of the author) and context when reading and discussing primary and secondary sources.								X							
	6-H.1.2.5 Identify the role of the individual in history and the significance of one person's ideas.								X				X			
	G3.2 Ecosystems															
	6-G3.2.1 Explain how and why ecosystems differ as a consequence of differences in latitude, elevation, and human activities.	X							X							
	6-G3.2.2 Identify ecosystems and explain why some are more attractive for humans to use than others.	X							X							
	G5.1 Humans and the Environment															
	6-G5.1.1 Describe the environmental effects of human action on the atmosphere, biosphere, lithosphere, and hydrosphere.								X				X	X	X	
	6-G5.1.2 Describe how variations in technology affect human modifications of the landscape.								X				X	X		
	6-G5.1.3 Identify ways in which human-induced changes in the physical environment in one place can cause changes in other places.								X				X	X		
	P3.1 Identifying and Analyzing Issues, Decision Making, Persuasive Communication About a Public Issue, and Citizen Involvement															
	6-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. Deeply examine policy issues in group discussions and debates to make reasoned and informed decisions. Write persuasive/argumentative essays expressing and justifying decisions on public policy issues. Plan and conduct activities intended to advance views on matters of public policy, report the results, and evaluate effectiveness.												X			
	P.4.2 Citizen Involvement															
	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 studied.												X		X	X
	6-P4.2.3 Participate in projects to help or inform others.												X		X	X
	G.6.1 Global Topic Investigation and Issue Analysis															
	6-G6.1.1 Contemporary Investigations – Conduct research on contemporary global topics and issues, compose persuasive essays, and develop a plan for action. (Contemporary Investigation Topics: Global Climate Change, Globalization, Migration, Human-Environmental Interactions, and Natural Disasters)												X			X