



Michigan Grade Level Content Expectations

Climate Change and Michigan Forests

Standard

Lesson

		Science															Social Science			
		Science Processes (S)										Life Science (L)		Earth Science (E)			Geography (G)			
		Inquiry Process (IP.07)						Inquiry Analysis and Communication (IA.07)				Reflection and Social Implications (RS.07)	Organization of Living Things (OL)		Earth Systems (ES)			Physical Systems (G3)	Environment & Society (G5)	
													Photosynthesis (07)		Human Consequences (07)	Weather and Climate (07)	Physical Processes (1)	Ecosystems (2)	Humans and the Environment (1)	
		11	12	13	14	15	16	11	12	13	15	15	61	62	41	42	71	1	1	1
1	Get in Touch with Trees!																			
2	Connections to Climate Change																			
3	Down to the Core!																			
4	Scientific Modeling																			
5	Making Sense of Data!																			
6	Climate and Plant Growth																			
7	Regional Impacts and Predictions																			
8	Student Actions																			
9	Student Conference																			
	Field Trip																			

S.IP.07.11 Generate scientific questions based on observations, investigations, and research.

.12 Design and conduct scientific investigations.

.13 Use tools and equipment (meter sticks and tapes, hand lens, thermometer, tree corer) appropriate to scientific investigations.

.14 Use metric measurement devices in an investigation.

.15 Construct charts and graphs from data and observations.

.16 Identify patterns in data.

S.IA.07.11 Analyze information from data tables and graphs to answer scientific questions.

.12 Evaluate data, claims, and personal knowledge through collaborative science discourse.

.13 Communicate and defend findings of observations and investigations.

.15 Use multiple sources of information to evaluate strengths and weaknesses of claims, arguments, or data.

S.RS.07.15 Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.

L.OL.07.61 Recognize the need for light to provide energy for the production of carbohydrates, proteins, and fats.

.62 Explain that carbon dioxide and water are used to produce carbohydrates, proteins, and fats.

E.ES.07.41 Explain how human activities (surface mining, deforestation, overpopulation, construction and urban development, farming, dams, landfills, and restoring natural areas) change the surface of the Earth and affect the survival of organisms.

.42 Describe the origins of pollution in the atmosphere, geosphere, and hydrosphere, (car exhaust, industrial emissions, acid rain, and natural sources), and how pollution impacts habitats, climatic change, threatens or endangers species.

.71 Compare and contrast the difference and relationship between climate and weather.

G3.1.1 Construct and analyze climate graphs for locations at different latitudes and elevations in the region to answer geographic questions and make predictions based on patterns.

G3.2.1 Explain how and why ecosystems differ as a consequence of differences in latitude, elevation, and human activities.

G5.1.1 Describe the environmental effects of human action on the atmosphere (air), biosphere (people, animals, and plants), lithosphere (soil), and hydrosphere (water).