

Michigan Project Learning Tree PreK-8 Guide Michigan Grade Level Content Expectations – Science X = Addresses/Supports	1. The Shape of Things	2. Get In Touch with Trees	3. Peppermint Beetle	4. Sounds Around	5. Poet-Tree	6. Picture This!	7. Habitat Pen Pals	8. The Forest of S.T. Shrew	9. Planet Diversity	10. Charting Diversity	11. Can It Be Real?	12. Invasive Species	13. We All Need Trees	14. Renewable or Not?	15. A Few of My Favorite Things	16. Pass the Plants, Please	17. People of the Forest	18. Tale of the Sun
GRADE 7																		
S.IP.M.1 Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.																		
S.IP.07.11 Generate scientific questions based on observations, investigations, and research.				X	X					X	X	X		X	X	X	X	
S.IP.07.14 Use metric measurement devices in an investigation.				X														
S.IP.07.15 Construct charts and graphs from data and observations.				X						X		X		X		X		
S.IP.07.16 Identify patterns in data.				X						X				X		X		
S.IA.M.1 Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.																		
S.IA.07.11 Analyze information from data tables and graphs to answer scientific questions.				X						X		X				X		
S.IA.07.12 Evaluate data, claims, and personal knowledge through collaborative science discourse.																		
S.IA.17.13 Communicate and defend findings of observations and investigations.				X							X	X		X	X	X	X	
S.IA.07.14 Draw conclusions from sets of data from multiple trials of a scientific investigation to draw conclusions.				X														
S.RS.M.1 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.07.17 Describe the effect humans and other organisms have on the balance of the natural world.				X								X		X	X		X	

Michigan Project Learning Tree PreK-8 Guide Michigan Grade Level Content Expectations – Science X = Addresses/Supports	1. The Shape of Things	2. Get In Touch with Trees	3. Peppermint Beetle	4. Sounds Around	5. Poet-Tree	6. Picture This!	7. Habitat Pen Pals	8. The Forest of S.T. Shrew	9. Planet Diversity	10. Charting Diversity	11. Can It Be Real?	12. Invasive Species	13. We All Need Trees	14. Renewable or Not?	15. A Few of My Favorite Things	16. Pass the Plants, Please	17. People of the Forest	18. Tale of the Sun
E.ES.M.4 Human Consequences- Human activities have changed the land, oceans, and atmosphere of the Earth resulting in the reduction of the number and variety of wild plants and animals sometimes causing extinction of species.																		
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.															X		X	

Michigan Project Learning Tree PreK-8 Guide Michigan Grade Level Content Expectations – Science X = Addresses/Supports	19. Viewpoints on the Line	20. Environmental Exchange Box	21. Adopt a Tree	22. Trees as Habitats	23. The Fallen Log	24. Nature’s Recyclers	25. Birds and Worms	26. Dynamic Duos	27. Every Tree for Itself	28. Air Plants	29. Rain Reasons	30. Three Cheer for Trees	31. Plant a Tree	32. A Forest of Many Uses	33. Forest Consequences	34. Who Works in this Forest?	35. Loving It Too Much	36. Pollution Search
GRADE 7																		
S.IP.M.1 Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.																		
S.IP.07.11 Generate scientific questions based on observations, investigations, and research.	X	X	X	X	X			X	X		X		X	X			X	
S.IP.07.12 Design and conduct scientific investigations.											X							

Michigan Project Learning Tree PreK-8 Guide Michigan Grade Level Content Expectations – Science X = Addresses/Supports	19. Viewpoints on the Line	20. Environmental Exchange Box	21. Adopt a Tree	22. Trees as Habitats	23. The Fallen Log	24. Nature's Recyclers	25. Birds and Worms	26. Dynamic Duos	27. Every Tree for Itself	28. Air Plants	29. Rain Reasons	30. Three Cheer for Trees	31. Plant a Tree	32. A Forest of Many Uses	33. Forest Consequences	34. Who Works in this Forest?	35. Loving It Too Much	36. Pollution Search
S.IP.07.13 Use tools and equipment (spring scales, stop watches, meter sticks and tapes, models, hand lens, thermometer, models, sieves, microscopes, hot plates, pH meters) appropriate to scientific investigations.											X							
S.IP.07.14 Use metric measurement devices in an investigation.											X							
S.IP.07.15 Construct charts and graphs from data and observations.		X	X	X	X						X						X	
S.IP.07.16 Identify patterns in data.											X						X	
S.IA.M.1 Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.																		
S.IA.07.11 Analyze information from data tables and graphs to answer scientific questions.																	X	
S.IA.17.13 Communicate and defend findings of observations and investigations.		X	X	X	X						X				X			
S.IA.07.14 Draw conclusions from sets of data from multiple trials of a scientific investigation to draw conclusions.											X							
S.RS.M.1 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.07.11 Evaluate the strengths and weaknesses of claims, arguments, and data.	X																	
S.RS.07.12 Describe limitations in personal and scientific knowledge.	X																	
S.RS.07.13 Identify the need for evidence in making scientific decisions.	X																	
S.RS.07.17 Describe the effect humans and other organisms have on the balance of the natural world.	X			X	X				X			X	X	X			X	

<p>Michigan Project Learning Tree PreK-8 Guide</p> <p>Michigan Grade Level Content Expectations – Science</p> <p>X = Addresses/Supports</p>	19. Viewpoints on the Line	20. Environmental Exchange Box	21. Adopt a Tree	22. Trees as Habitats	23. The Fallen Log	24. Nature’s Recyclers	25. Birds and Worms	26. Dynamic Duos	27. Every Tree for Itself	28. Air Plants	29. Rain Reasons	30. Three Cheer for Trees	31. Plant a Tree	32. A Forest of Many Uses	33. Forest Consequences	34. Who Works in this Forest?	35. Loving It Too Much	36. Pollution Search
<p>L.OL.M.6 Photosynthesis- Plants are producers; they use the energy from light to make sugar molecules from the atoms of carbon dioxide and water. Plants use these sugars along with minerals from the soil to form fats, proteins, and carbohydrates. These products can be used immediately, incorporated into the cells of a plant as the plant grows, or stored for later use.</p>																		
<p>L.OL.07.61 Recognize the need for light to provide energy for the production of carbohydrates, proteins and fats.</p>									X		X							
<p>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.</p>	X								X					X	X		X	
<p>E.ES.07.42 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.</p>	X														X			

Michigan Project Learning Tree PreK-8 Guide Michigan Grade Level Content Expectations – Science X = Addresses/Supports	37. Reduce, Reuse, Recycle	38. Every Drop Counts	39. Energy Sleuths	40. Then and Now	41. How Plants Grow	42. Sunlight and Shades for Green	43. Have Seed, Will Travel	44. Water Wonders	45. Web of Life	46. School Yard Safari	47. Are Vacant Lots Vacant?	48. Field, forest, and Stream	49. Tropical Treehouse	50. 400-Acre Wood	51. Make Your Own Paper	52. A Look at Aluminum	53. On the Move	54. I'd Like to Visit a Place Where
GRADE 7																		
S.IP.M.1 Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.																		
S.IP.07.11 Generate scientific questions based on observations, investigations, and research.	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X
S.IP.07.12 Design and conduct scientific investigations.					X	X						X						
S.IP.07.13 Use tools and equipment (spring scales, stop watches, meter sticks and tapes, models, hand lens, thermometer, models, sieves, microscopes, hot plates, pH meters) appropriate to scientific investigations.					X							X						
S.IP.07.14 Use metric measurement devices in an investigation.					X							X						
S.IP.07.15 Construct charts and graphs from data and observations.	X	X	X		X		X				X	X						
S.IP.07.16 Identify patterns in data.	X	X			X							X						
S.IA.M.1 Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.																		
S.IA.07.11 Analyze information from data tables and graphs to answer scientific questions.	X	X	X		X			X				X						
S.IA.07.12 Evaluate data, claims, and personal knowledge through collaborative science discourse.																		
S.IA.17.13 Communicate and defend findings of observations and investigations.		X	X		X						X	X	X				X	X
S.IA.07.14 Draw conclusions from sets of data from multiple trials of a scientific investigation to draw conclusions.					X							X						

<p>Michigan Project Learning Tree PreK-8 Guide</p> <p>Michigan Grade Level Content Expectations – Science</p> <p>X = Addresses/Supports</p>	37. Reduce, Reuse, Recycle	38. Every Drop Counts	39. Energy Sleuths	40. Then and Now	41. How Plants Grow	42. Sunlight and Shades for Green	43. Have Seed, Will Travel	44. Water Wonders	45. Web of Life	46. School Yard Safari	47. Are Vacant Lots Vacant?	48. Field, forest, and Stream	49. Tropical Treehouse	50. 400-Acre Wood	51. Make Your Own Paper	52. A Look at Aluminum	53. On the Move	54. I'd Like to Visit a Place Where
L.OL.07.62 Explain that carbon dioxide and water are used to produce carbohydrates, proteins, and fats.						X												
L.OL.07.63 Describe evidence that plants make, use and store food.					X	X												
E.ES.M.4 Human Consequences- Human activities have changed the land, oceans, and atmosphere of the Earth resulting in the reduction of the number and variety of wild plants and animals sometimes causing extinction of species.																		
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.	X								X		X		X	X				X
E.ES.07.42 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.	X										X						X	
E.ES.M.8 Water Cycle- Water circulates through the four spheres of the Earth in what is known as the “water cycle.”																		
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										
E.ES.07.82 Analyze the flow of water between the components of a watershed, including surface features (lakes, streams, rivers, wetlands) and groundwater.							X				X							

Michigan Project Learning Tree PreK-8 Guide Michigan Grade Level Content Expectations – Science X = Addresses/Supports	55. Planning the Ideal Community	56. We Can Work It Out	57. Democracy in Action	58. There Ought to Be a Law	59. Power of Print	60. Publicize It!	61. The Closer You Look	62. To Be a Tree	63. Tree Factory	64. Looking at Leaves	65. Bursting Buds	66. Germinating Giants	67. How Big Is Your Tree?	68. Name that Tree	69. Forest for the Trees	70. Soil Stories	71. Watch on Wetlands	72. Air We Breathe
GRADE 7																		
S.IP.M.1 Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.																		
S.IP.07.11 Generate scientific questions based on observations, investigations, and research.	X	X	X	X	X	X				X			X	X	X	X	X	X
S.IP.07.12 Design and conduct scientific investigations.																X	X	X
S.IP.07.13 Use tools and equipment (spring scales, stop watches, meter sticks and tapes, models, hand lens, thermometer, models, sieves, microscopes, hot plates, pH meters) appropriate to scientific investigations.													X				X	X
S.IP.07.14 Use metric measurement devices in an investigation.													X				X	
S.IP.07.15 Construct charts and graphs from data and observations.				X									X			X	X	X
S.IP.07.16 Identify patterns in data.																X	X	X
S.IA.M.1 Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.																		
S.IA.07.11 Analyze information from data tables and graphs to answer scientific questions.													X			X	X	X
S.IA.07.12 Evaluate data, claims, and personal knowledge through collaborative science discourse.																		
S.IA.17.13 Communicate and defend findings of observations and investigations.	X	X	X	X									X			X	X	X
S.IA.07.14 Draw conclusions from sets of data from multiple trials of a scientific investigation to draw conclusions.																X	X	X
S.IA.07.15 Use multiple sources of information to evaluate strengths and weaknesses of claims, arguments, or data.		X		X												X		X

Michigan Project Learning Tree PreK-8 Guide Michigan Grade Level Content Expectations – Science X = Addresses/Supports	73. Waste Watchers	74. People, Places, Things	75. Tipi Talk	76. Tree Cookies	77. Trees in Trouble	78. Signs of Fall	79. Tree Lifecycle	80. Nothing Succeeds Like Succession	81. Living with Fire	82. Resource-Go-Round	83. A Peek at Packaging	84. The Global Climate	85. In the Driver’s Seat	86. Our Changing World	87. Earth Manners	88. Life on the Edge	89. Trees for Many Reasons	90. Native Ways
S.RS.07.11 Evaluate the strengths and weaknesses of claims, arguments, and data.					X													
S.RS.07.13 Identify the need for evidence in making scientific decisions.					X													
S.RS.07.17 Describe the effect humans and other organisms have on the balance of the natural world.								X	X	X	X	X	X	X		X	X	
L.OL.M.6 Photosynthesis- Plants are producers; they use the energy from light to make sugar molecules from the atoms of carbon dioxide and water. Plants use these sugars along with minerals from the soil to form fats, proteins, and carbohydrates. These products can be used immediately, incorporated into the cells of a plant as the plant grows, or stored for later use.																		
L.OL.07.61 Recognize the need for light to provide energy for the production of carbohydrates, proteins and fats.					X													
L.OL.07.62 Explain that carbon dioxide and water are used to produce carbohydrates, proteins, and fats.					X													
L.OL.07.63 Describe evidence that plants make, use and store food.				X	X													
E.ES.M.4 Human Consequences- Human activities have changed the land, oceans, and atmosphere of the Earth resulting in the reduction of the number and variety of wild plants and animals sometimes causing extinction of species.																		
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.								X	X			X		X		X	X	
E.ES.07.42 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.													X	X				

Michigan Project Learning Tree PreK-8 Guide Michigan Grade Level Content Expectations – Science X = Addresses/Supports	91. In The Good Old Days	92. A Look at Lifestyles	93. Paper Civilizations	94. By The Rivers of Babylon	95. Did You Notice?	96. Improve Your Place
GRADE 7						
S.IP.M.1 Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.						
S.IP.07.11 Generate scientific questions based on observations, investigations, and research.	X	X	X	X	X	X
S.IA.M.1 Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.						
S.IA.17.13 Communicate and defend findings of observations and investigations.						X
S.RS.M.1 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.07.17 Describe the effect humans and other organisms have on the balance of the natural world.		X		X		
E.ES.M.4 Human Consequences- Human activities have changed the land, oceans, and atmosphere of the Earth resulting in the reduction of the number and variety of wild plants and animals sometimes causing extinction of species.						
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.		X		X		
E.ES.07.42 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.				X		