Grade 7 Science Standards			**Daytime Classes**	Animal Signs	Beavers	Birds	Small Mammals	Snowshoe Hare	White-tailed Deer	Wildlife Mgmt	Forest Ecology	Plant Study	Trees and Keys	Wetlands Ecology	Lake Study	Stream Study	Fisheries Mgmt	Frozen Lake Study	Acid Rain	Climate & Phenology	Energy & CO2	Geology	Weather	Living Lightly	Natures Timing	Ojibwe Heritage	Ojibwe Snowshoe	Seeds of Change	Voyageur Life	Adventure Ropes Course	Rock Climbing	Basic Survival	F.I.R.S.T Games	Beginning Orienteering	Competitive Orienteering	Canoeing	Cross Country Skiing	Superior Snowshoe	Superior View Hike	**Evening Activities**	Astronomy	Block Printing	Creative Expressions	Creature from Wolf Lake	Dream Catchers	Lake Superior Game	Night Hike	Ol Pellets	Paper Making Star Lab	Woodland Art	Volleyball	**Naturalist Programs**	Bats	Fur Trade	History of the North Shore	Logging Camp Life	Raptors	Frozen Beans
Strand I. History and Nature of Science																																																											
Substrand	**Standard**	**Benchmark**																																																										
A. Scientific World View	The student will understand that science is a way of knowing about the world that is characterized by empirical criteria, logical argument and skeptical review.	1. The student will: Recognize how scientific knowledge is subject to change as new evidence becomes available, or as new theories cause scientists to look at old observations differently.																	1	1	1																																							
		2. Explain natural phenomena by using appropriate physical, conceptual and mathematical models.									2								2	2	2	2	2																																					
B. Scientific Inquiry	The student will design and conduct scientific investiga-tions.	1. The student will: Formulate a testable hypothesis based on prior knowledge.														1				1	1																																						
		2. Recognize that a variable is a condition that may influence the outcome of an investigation and know the importance of manipulating one variable at a time.														2			2																																							
		3. Write a specific step-by-step procedure for scientific investigation.													3																																												
		4. Explain how classroom scientific investigations relate to established scientific principles.													4			4	4	4	4																																						
C. Scientific Enterprise	The student will know that science and technology are human efforts that both influence and are influenced by society.	1. The student will give examples of the development of technology influencing scientific knowledge, and investigation and scientific knowledge influencing the development of technology.																	1	1	1							1																															
D. Historic Perspectives	The student will understand how scientific discovery, culture societal norms and technology have influenced one another in different time periods.	1. The student will: Cite examples of individuals throughout history who made discoveries and contributions in science and technology.																		1	1							1																															
		2. Cite examples of how culture influences scientific and technological advances.																		2	2					2	2	2	2																															
IV. Life Science																																																												
Substrand	**Standard**	**Benchmark**																																																										
B. Diversity of Organisms	The student will understand that living systems, at every level of organization, demonstrate the complementary nature of structure and function.	1. The student will: Explain that individuals are composed of specialized cells, tissues, organs and organ systems that perform specialized functions.																																																										

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		2. Recognize that an organism's body is plan and its ability to regulate its internail environment enable it to make or find food, grow and reproduce in a constantly changing environment.																																																										
		3. Recognize that behavioral responses of organisms may be determined by heredity and past experiences																																																										
		4. Use and create dichotomous keys																																																										
		5. Use the characteristics of an organism to identify the kingdom to which it belongs.										5			5		5	5																																										
C. Interdependence of Life	The student will understand that within ecosystemscomplex interactions exist between organisms and the physical environ-ment	1. The student will: Provide examples of the potentially irreversible effects of human activity on ecosystems.			1	1	1	1	1		1			1	1	1	1	1	1	1	1							1										1																						
		2. Define a population as all individuals of a species that exist together at a given place and time.		2	2	2	2	2	2		2			2	2	2	2	2										2																																	
		3. Define an ecosystem as all populations living together and the physical factors with which they interact.			3	3		3	3	3	3			3	3	3	3	3										3																																	
		4. Explain the factors that affect the number and types of organisms an ecosystem can support, including available resources, abiotic and biotic factors and disease.			4	4	4	4	4	4	4			4	4	4	4	4		4	4							4																																	
D. Heredity	The student will understand that heredity information is contained in genes which are inherited through both sexual and asexual reproduct-ion	1. Recognize that inherited traits result from information contained in genes, which are located on chromosomes of each cell.																										1																																	
		2. Recognize that each gene carries a single unit of information and can influence more than one trait.																										2																																	
		3. Explain how inherited traits can be determined by one or more genes.																										3																																	
		4. Comprehend that interactions with the environment affect some inherited traits.														4												4										4																					

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E. Biological Populations Change Over Time	The student will understand how biological evolution provides a scientific explanation for the fossil record of ancient life forms, as well as for the striking similarities observed among diverse species of living organisms.	2. Describe how the fossil record documents the appearance and diversification of many life forms.				2																																																				
		3. Explain how biological adaptations in structure, function and behavior enhance the reproductive success and survival of a species in a particular environment.		3	3	3	3	3	3		3	3		3	3	3	3	3																				3																				
		5. Explain how diversity of species develops through gradual processes over generations				5						5																																													
F. Flow of Matter and Energy	The student will understand how the flow of energy and the recycling of matter contribute to a stable ecosystem	1. The student willknow tht plants use the energy in light to make sugars out of carbon dioxide and water.			1	1						1		1	1		1																																								
		2. Explain how energy is transferred through food chains and food webs in an ecosystem.					2	2	2					2		2																																									
		5. Compare and contrast predator/prey, parasite/host and producer/consumer/decomposer relationships.		5	5	5	5	5	5			5			5	5	5	5																																								
G. Human Organism	The student will understand human body systems and their relationship to disease.	1. The student will recognize that disease can be caused by genetics, infection by other organisms, exposure to environmental factors or a combination of these.																										1																														
		2. Identify the risks associated with natural, chemical and biological hazards.																										2																														