









Basic Alignment of Projects WILD, WILD Aquatic, Learning Tree activities to the Core Primary Grade Levels Science Essential Concepts and Skills

Core Essential Concepts & Skills Sets							"Project" Activity	Source	Activity Skill Development																				Notes																											
Inquiry 1	Inquiry 2	Inquiry 3	Inquiry 4	Inquiry 5	Inquiry 6	Inquiry 7	Life 1	Life 2	Life 3	Life 4	Life 5	Life 6	Earth 1	Earth 2	Earth 3	Physical 1	Physical 2	Physical 3	analysis	application	cause & effect	classification	comparison	composition	construction	description	discussion	evaluation	generalization	identification	inference	interpretation	observation	organization	prediction	problem solving	reasoning	representation	research	summarization	synthesis	verification	Iowa Supplement													
*	*						X												Looking at Leaves	PLT				X	X	X		X				X	X	X																	Encourage student questions that can be answered through observations.					
										X									Make A Coat	PW	X			X			X	X	X				X	X	X				X													Students could conduct their own investigation using different materials to make paper, as explained in Enrichment activity #1.				
*	*			*	*		X			X									Make Your Own Paper	PLT					X	X	X							X	X																					
							X	X	X										Marsh Munchers	PWA	X		X				X				X				X												X	X								
X	X	*	X	X	X	X	X	X	X				X						Nature's Recyclers	PLT	X		X			X		X	X		X	X	X	X	X	X	X																	Students can use tools such as magnifying glasses, thermometers and scales in their investigation.		
																			On the Move	PLT	X				X			X			X			X																				Teacher could talk about the health benefits of walking and biking.		
							X		X			X							Pass the Plants, Please	PLT	X			X	X			X	X			X				X							X												Enrichment activity #5 encourages students to examine how seasons affect what foods are available.	
							X	X			X								People, Places, Things	PLT				X		X		X	X			X			X							X				X										
*							X	X			X								Peppermint Beetle	PLT								X	X					X	X							X												Students may research how animals use their sense of smell.		
							X		X										Picture This!	PLT	X			X	X			X	X				X	X	X																					
							X		X	X									Planning the Ideal Community	PLT							X	X													X							X								
X							X		X	X									Plant a Tree	PLT									X	X											X															
*	*	*	*	*	*	*				X	X								Plastic Jellyfish	PWA	X		X							X	X		X	X								X							X					Extensions to the activity create even more opportunity for inquiry! (esp. 1, 2, 5, 6, 7)		
										X									Playing Lightly	PW	X		X		X				X	X										X	X						X									
										X									Pollution Search	PLT	X		X		X				X	X							X				X															
X		X			X	X				X									Schoolyard Safari	PLT	X			X					X	X					X	X																				
*							X												Seeing is Believing	PW	X	X	X	X	X		X	X		X	X		X	X	X							X								X					Encourage students to ask questions about their own sight as well as other animals. Allow students to investigate some properties of their own vision as well as learn more about the vision of animals of their choice.	
X							X	X					X	X	X				Signs of Fall	PLT	X		X	X	X			X	X			X	X	X																						
X	X	X			X	X			X				X						Soil Stories	PLT	X							X	X				X	X	X			X														X		Enrichment activity #1 offers another investigation.		
*							X		X		X								Sounds Around	PLT	X			X	X			X	X			X			X	X																			Encourage student questions about how they hear and special hearing adaptations of animals.	
							X		X										Surprise Terrarium	PW		X	X						X			X		X	X																					Use this activity in conjunction with going outside and looking for animals with camouflage. Allow students to ask questions about these animals and other animals with different adaptations.
							X		X										Tale of the Sun	PLT	X				X				X					X	X																					
X	*						X		X										The Closer You Look	PLT	X				X	X						X		X	X																					
							X												The Shape of Things	PLT				X	X				X								X	X																		
							X	X											Thicket Game	PW	X	X	X						X			X	X																							
									X	X									Three Cheers for Trees	PLT					X			X	X	X	X																									
*	*						X		X										To Be a Tree	PLT	X						X	X			X		X																					Encourage student questions that can be answered through observations.		
							X		X	X									Too Close for Comfort	PW	X	X	X		X				X	X	X		X	X					X																	
							X	X	X										Tree Cookies	PLT	X	X	X				X		X	X			X	X	X																					
*	*						X	X	X										Tree Factory	PLT	X	X						X				X		X																					Encourage student questions that can be answered through observations.	
							X	X	X										Tree Lifecycle	PLT				X									X																							
*							X		X										Trees as Habitats	PLT				X					X			X		X		X	X																		Before going outside in Part B, allow students to ask questions about life in a tree and encourage them to find answers during their observations. Enrichment #2 encourages looking at the tree during different seasons.	
X							X	*	X	X		X							Trees in Trouble	PLT	X		X		X			X		X		X	X		X				X															Enrichment activity #2 investigates decomposition - a necessary part of the tree's life cycle.		
							X												Water Plant Art	PWA	X			X	X	X	X					X																								



**Primary (K-2) Science Essential Skills and Concepts**

<b>Science as Inquiry (Inquiry) (pgs 12-13)</b>		<b>Life Science (Life) (pgs 70-71)</b>	
<b>#</b>	<b>Description</b>	<b>#</b>	<b>Description</b>
1	Ask questions about objects, organisms, and events in the environment	1	Understand and apply knowledge of the characteristics of living things and how living things are both similar to and different from each other and from non-living things
2	Plan and conduct simple investigations	2	Understand and apply knowledge of life cycles of plants and animals
3	Use tools to gather data and extend the senses	3	Understand and apply knowledge of the basic needs of plants and animals and how they interact with each other and their physical environment
4	Use mathematics in scientific inquiry	4	Understand and apply knowledge of ways to help take care of the environment
5	Use data to construct reasonable explanations	5	Understand and apply knowledge of basic human structures (human body parts and their functions)
6	Communicate investigations and explanations	6	Understand and apply knowledge of good health habits
7	Follow appropriate safety procedures when conducting investigations		
<b>Earth &amp; Space (Earth) (pg 22)</b>		<b>Physical Science (Physical) (pg 44)</b>	
<b>#</b>	<b>Description</b>	<b>#</b>	<b>Description</b>
1	Understand and apply knowledge of properties of earth materials	1	Understand and apply knowledge of observable and measurable properties of objects
2	Understand and apply knowledge of observable information about daily and seasonal weather conditions	2	Understand and apply knowledge of characteristics of liquids and solids
3	Understand and apply knowledge of events that have repeating patterns	3	Understand and apply knowledge of the positions and motions of objects







## Primary (K-2) Social Studies Essential Skills and Concepts

Behavioral Sciences (Behavior) (pgs 11-12)	Economics (pgs 21-22)
<b># Description</b>	<b># Description</b>
1 Understand the changing nature of society.	1 Understand the role of scarcity and economic trade-offs and how conditions impact people's lives
2 Understand all people have individual traits.	2 Understand that the basic nature of economics is an exchange of resources
3 Understand interactions between self and the peer group.	3 Understand how governments throughout the world influence economic behavior
4 Understand the relationship of the individual to the components of society and culture.	4 Understand people in all parts of the world trade with one another.
	5 Understand that changes in technology impact individuals, the economy and society
	6 Understand the universal economic concepts of needs and wants.
Geography (pgs 29-30)	History (pgs 40-42)
<b># Description</b>	<b># Description</b>
1 Understand the use of geographic tools to locate and analyze information about people, places, and environments.	1 Understand people construct knowledge of the past from multiple and various types of sources.
2 Understand how geographic and human characteristics create culture and define regions.	2 Understand how and why people create and participate in governance.
3 Understand how human factors and the distribution of resources affect the development of communities and the movement of populations.	3 Understand culture and how cultural diffusion affects the development and maintenance of societies.
4 Understand how geographic processes and human actions modify the environment and how the environment affects humans.	4 Understand individual and groups within a society may promote change or the status quo.
	5 Understand economic needs and wants affect individual and group decisions
	6 Understand relationship between geography and historical events
	7 Understand cause and effect relationships and other historical thinking skills in order to interpret events and issues.
Political Science/Civic Literacy (Poli Sci) (pg 51)	
<b># Description</b>	
1 Understand the basic concepts of government and democracy and that the U.S. Constitution defines the rights and responsibilities of citizens.	
2 Understand how government affects citizens affect government.	
3 Understand the United States has a role in current world affairs.	
**The essentials concepts and skills listed in social studies - Political Science/Civic Literacy are the same as the essential concepts and skills listed in 21st Century Skills - Civic Literacy.	





## Primary (K-2) Math Essential Skills and Concepts

Numbers and Operations (pgs 15-16)	Algebra (pgs 17-18)
<b># Description</b>	<b># Description</b>
1 Count, represent, read, compare, order and conserve (knows that the total number does not change when configured differently) whole numbers.	1 Recognize, describe, create and extend repeating and growing patterns such as physical, geometric and numeric patterns and translate from one representation to another.
2 Develop understandings of addition and subtraction and strategies for basic addition facts and related subtraction facts.	2 Sort, classify, and order objects by size, number and other properties.
3 Express numbers as equivalent representations to fluently compose and decompose numbers (putting together and taking apart).	3 Demonstrate the use of the commutative and associative properties and mathematical reasoning to solve for the unknown quantity in addition and subtraction problems; justify the solution.
4 Develop fluency and quick recall of addition facts and related subtraction facts and fluency with multi-digit addition and subtraction.	4 Understand equality as meaning "the same as" and use the = symbol appropriately.
5 Estimate the answer to an addition and subtraction problem before computing and determine whether the computer answer makes sense.	
6 Develop an understanding of whole number relationships, including grouping in tens and ones and apply place-value concepts.	
7 Understand fractional parts are equal shares or equal portions of a whole unit (a unit can be an object or a collection of things).	
Geometry (pg 19)	Measurement (pg 21)
<b># Description</b>	<b># Description</b>
1 Recognize and describe shapes and structures in the physical environment	1 Identify attributes that are measurable, such as length, weight, time and capacity, and use these attributes to order objects and make direct comparisons.
2 Compose and decompose geometric shapes, including plane and solid figures to develop a foundation for understanding area, volume, fractions, and proportions.	2 Estimate, measure and compute measurable attributes while solving problems.
3 Identify, name, sort and describe two- and three-dimensional geometric figures regardless of size or orientation.	3 Estimate and measure length using standard (customary and metric) and non-standard units with comprehension.
4 Describe and specify space and location with simple relationships and with coordinate systems.	
5 Experience and recognize slides, flips, turns and symmetry to analyze mathematical situations.	
6 Use attributes of geometric figures to solve spatial problems.	
Data Analysis and Probability (pg 22)	
<b># Description</b>	
1 Collect, sort, organize, and represent data to ask and answer questions relevant to the K-2 environment.	
2 Compare different representations of the same data using these types of graphs: bar graphs, frequency tables, line plots, and picture graphs.	
3 Use information displayed on graphs to answer questions and make predictions, inferences and generalizations such as likely or unlikely events.	





**Primary (K-2) Literacy Essential Skills and Concepts**

Reading (pgs 28-34)	Writing (pgs 70-75)
<b># Description</b>	<b># Description</b>
1 Demonstrate an understanding of written language and the relationship of letters and words to the sounds of speech.	1 Use an effective writing process.
2 Use multiple decoding strategies to read words in text.	2 Use of knowledge of purpose, audience, format, and medium in developing written communication.
3 Independently read a significant number of books and texts each year. This includes reading both fiction and nonfiction in a variety of genres.	3 Apply writing strategies to communicate in a variety of genres with various audiences.
4 Read for a variety of purposes and across content areas.	4 Use writing as a tool for learning.
5 Use a variety of skills and strategies to comprehend nonfiction and informational text.	5 Engage in the information literacy process: access, evaluate, and communicate information and ideas.
6 Use a variety of strategies and skills to comprehend and interpret fiction.	6 Write on demand.
7 Read with fluency silently and aloud to support comprehension.	7 Adhere to conventions generally established in spelling, punctuation, grammar, usage, syntax, and style appropriate to genre and writing situation.
8 Use a variety of strategies to develop and expand reading vocabulary.	8 Incorporate technology as a tool to enhance writing.
Speaking (pgs 95-98)	Listening (pgs 110-111)
<b># Description</b>	<b># Description</b>
1 Consider audience and variables in the speaking situation.	1 Listen for information and understanding.
2 Produce a coherent message.	2 Listen for interpretation, analysis, and evaluation.
3 Participate in a variety of communication situations.	3 Listen to establish, maintain, and enhance relationships
4 Use appropriate content and conventions for purpose, audience, occasion and context.	
5 Demonstrate control of delivery skills.	
6 Participate appropriately in one-on-one situations and group settings.	
7 Recognize the role of evaluation in oral communication.	
8 Recognize the role of response in oral communication.	
Viewing (pgs 130-131)	
<b># Description</b>	
1 Analyze the effects of visual media on society and culture.	
2 Use a range of strategies to interpret visual media.	
3 Apply a variety of criteria to evaluate informational media.	
4 Understand how literacy forms can be represented in visual narratives.	





**Primary (K-2) 21st Century Skills Essential Skills and Concepts**

Political Science/Civic Literacy (Poli Sci) (pg 11) # Description	Employability Skills (pgs 31-36) # Description
1 Understand the basic concepts of government and democracy and that the U.S. Constitution defines the rights and responsibilities of citizens.	1 Communicate and work appropriately with others to complete tasks.
2 Understand how government affects citizens affect government.	2 Recognize different roles and responsibilities and its open to change.
3 Understand the United States has a role in current world affairs.	3 Learn leadership skills and demonstrate integrity, ethical behavior, and social responsibility
**The essentials concepts and skills listed in 21st Century Skills - Civic Literacy are the same as the essential concepts and skills listed in social studies - Polical Science/Civic Literacy.	4 Develop initiative and demonstrate self-direction in activities.
	5 Work productively and are accountable for their actions.
Financial Literacy (pgs 50-52) # Description	Health Literacy (pgs 62-64) # Description
1 Demonstrate the ability to set goals based on wants and needs.	1 Understand and use basic health concepts to enhance personal, family, and community health.
2 Identify monetary resources and distribution options for those resources	2 Understand and use interactive literacy and social skills to enhance personal, family, and community health.
3 Demonstrate an understanding of the concept of credit.	3 Recognize critical literacy/thinking skills related to personal, family and community wellness.
4 Develop awareness that each person has an identity	4 Identify influences that affect personal health and the health of others.
5 Recognize various ways to save and the reasons individuals decide to save.	5 Demonstrate behaviors that foster healthy, active lifestyles for individuals and the benefit of society.
6 Distinguish between appropriate spending choices.	
Technology Literacy (pgs 78-80) # Description	
1 Use technology to create projects, identify patterns, and make predictions.	
2 Use a variety of technology tools and media-rich resources to work collaboratively with others.	
3 Utilize predetermined digital resources and tools to answer questions or solve problems.	
4 Use technological resources to investigate given questions or problems.	
5 Understand and practice appropriate and safe uses of technology.	
6 Understand basic technology hardware and software and their application	

**Alignment to Primary (K-2) Core Concepts and Essential Skills Content Area**

		Science				Social Studies				Social Studies & 21st Century Skills	21st Century Skills			
AFWA Core Concept		Science as Inquiry	Life Science	Earth & Space	Physical Science	Behavioral Sciences	Economics	Geography	History	Civic Literacy	Employability Skills	Financial Literacy	Health Literacy	Technology Literacy
<b>I</b>	<b>Understands the value of our natural resources as a public trust.</b>		4						2,3					
A	In North America many natural resources including fish and wildlife are public trust resources managed by governmental agencies.					4		2		1,2				
B	Sustainable natural resources depend on the support of an informed and responsible citizenry.									1,2				
C	Regulations are necessary for natural resources conservation.									1,2				
<b>II</b>	<b>Appreciates that conservation and management of terrestrial and water resources are essential to sustaining fish and wildlife, the outdoor landscape, and the quality of our lives.</b>		4											
A	The health and well-being of fish, wildlife, and humans depend on the quality of their environment.	1,2,7	3					2,3	3	3			5	1,2,3,4,5,6
B	Fish, wildlife, and plant communities can be conserved and restored through science-based management which considers the needs of humans as well as those of other species.													1,2,3,4,5,6
<b>III</b>	<b>Understands and actively participates in the stewardship and support of our natural resources.</b>		4			1,4				3				
A	A person's culture affects his or her view and use of fish, wildlife, and other natural resources.					3	6	2,4			3		5	
B	The distribution and abundance of natural resources including fish and wildlife provide significant economic benefits.						4	2,3						
C	Everyone impacts natural resources including fish and wildlife and their habitats. As human populations grow, impacts on natural resources increase.						5,6	3,4	1,5		3			
D	Unlike other organisms, only humans have the capacity and responsibility to consider the effects of their actions on their environment.	1,2,7					6	4			3			
<b>IV</b>	<b>Understands and accepts and/or lawfully participates in natural resources based outdoor recreation.</b>		4											
A	Regulated hunting, fishing, and trapping are important tools for managing some fish and wildlife populations and habitats.													
B	Natural resources including fish and wildlife provide recreational benefits directly to participants and increase advocacy for conservation								4					
C	Responsible users of natural resource and the outdoors respect the rights and property of others													
<b>V</b>	<b>Understands and actively supports funding for natural resources conservation including fish and wildlife</b>		4				6							
A	Within the US, state fish and wildlife management is funded primarily through hunting, fishing and trapping licenses and through federal excise taxes collected from the sale of hunting, target shooting, and fishing equipment and motor boat fuels.									1,2				
B	Natural resource based activities, such as hunting, fishing, viewing, and photography provide people with millions of days of outdoor recreation each year and generate billions of dollars for the economy.						4							
C	The future of natural resources conservation requires additional funding from a broad-based constituency.													