Mathematics: Essential Learning Expectations:

First Grade:

Content Standard 1: Number Sense and Operation – A student, applying reasoning and problem solving, will use number sense and operations to represent numbers in multiple ways, understand relationships among numbers and number systems, make reasonable estimates, and compute fluently within a variety of relevant cultural contexts, including those of Montana American Indians.

Content Standard	Essential Learning Expectations	Vocabulary	
1.1 Whole Number Relationships:	A. Compare and order numbers to 100. B. Model two-digit numbers in terms of tens and ones. C. Represent numbers on the number line.	tens, ones, greater than, less than, base-ten blocks, number line, counting number, order, more, fewer	
1.2 Estimation and Operations:	A. Demonstrate a strategy for solving one and two-digit addition and subtraction problems using concrete models. B. Use a variety of strategies to determine basic addition and subtraction facts.	subtract, plus, doubles, breaking apart, making tens, friendly numbers	
1.3 Whole Number Concepts:	A. Use concrete models, including objects and number lines to represent addition and subtraction situations. B. Use counting strategies and numeric reasoning to solve problems involving addition and subtraction.	minus	

	C. Create addition and subtraction problems in context.		
1.4 Common Fractions and Decimals	A. Model and identify part/whole relationships within context	part, whole	
1.5 Length, Time, and Temperature:	A. Identify hours on an analog clock. B. Describe time using appropriate terminology when talking about daily life, science, and culture; including that of Montana American Indians.	morning, afternoon, day, night, week, month, before/after, shorter/longer, tomorrow, today, yesterday, o'clock	
Content Standard 2: Data Analysis Mathematics – A student, applying reasoning and problem solving, will use data representation and analysis, simulations, probability, statistics, and statistical methods to evaluate information and make informed decisions within a variety of relevant cultural contexts, including those of Montana American Indians.			
2.1 Representing Data:	A. Use objects to display data in bar graphs or pictographs.	pictograph, graph, key, bar graph	
2.2 Evaluating Data:	A. Solve problems by counting and making comparisons of objects.	smaller, larger, equal	
2.3 Likelihood of Events:	ELE for this Benchmark addressed in Grade 3		
Content Standard 3: Geometric Reasoning – A student, applying reasoning and problem solving, will understand geometric properties, spatial relationships, and transformation of shapes, and will use spatial reasoning and geometric models to analyze mathematical situations within a variety of relevant and cultural contexts, including those of Montana American Indians.			
3.1 Two-Dimensional Attributes	A. Compose and decompose figures using two-dimensional shapes and identify the attributes (e.g., build a hexagon using six equilateral triangles).		
3.2 Three-	A. Use models to	rectangular prism,	

Dimensional Attributes	**visually identify and describe rectangular prisms, pyramids and cones.** **B. Use three-dimesional shapes to identify rectangular prisms, pyramids and cones in their environment.**	**pyramid, cone**	
3.3 Basic Transformations:	**ELE for this Benchmark addressed in Grade 3**		
3.4 Linear Measurement:	**A. Estimate and measure the length of objects using non-standard units laid end-to-end (e.g., lay paperclips end-to-end and count how many using groups of tens and ones).**	**estimate, measure**	
3.5 Area and Perimeter:	**ELE for this Benchmark addressed in Grade 3.**		
Content Standard 4:Algebraic and Functional Reasoning – A student, applying reasoning and problem solving, will use algebraic concepts and procedures to understand processes involving number, operation, and variables and will use procedures and function concepts to model the quantitative and functional relationships that describe change within a variety of relevant cultural contexts, including those of Montana American Indians.			
4.1 Patterns and Relations:	**A. Identify and extend simple repeating (e.g., 4, a, 4, a, 4...) and growing (e.g., 3, 5, 7, 9...) number patterns.**		
4.2 Symbols and Expressions	**A. Recognize and find unknowns represented by symbols (e.g., boxes, spaces, blanks, circles).**		
4.3 Properties of	**A. Use models to**	**zero, odd, even**	

Number and Operation:	**represent and justify zero as the identity for addition.** **B. Use number patterns to justify a number as even and odd numbers.**		
4.4 Equivalent Expressions:	**A. Recognize and generate equivalent representations of a number with mutliple addends and subtrahends.** **B. Exchange coins to show equivalence using pennies, nickles, and dimes.**	**equal (=)**	
4.5 Numerical Modeling with Manipulatives:	**A. Use models to describe how a pattern is changing (e.g., ▲■▲; ▲■■▲; ▲■■■▲…).**		