

Kindergarten

Overarching Processes: Problem Solving, Reasoning, Connections, and Communication			
Content	Skills: Students will . . .	Student Learning Goals: Students will understand that . . .	Resources & Materials
Number & Operations	MLR Standard A: Students use numbers in everyday and mathematical contexts to quantify or describe phenomena, develop concepts of operations with different types of numbers, use the structure and properties of numbers with operations to solve problems, and perform mathematical computations. Students develop number sense related to magnitude, estimation, and the effects of mathematical operations on different types of numbers. It is expected that students use numbers flexibly, using forms of numbers that best match a situation. Students compute efficiently and accurately. Estimation should always be used when computing with numbers or solving problems.		
Whole Numbers: Magnitude	Compare and order whole numbers to 20	Numbers can be used to count things, place them in order, or name them.	Investigations: <i>Counting & Number Sense</i> ; MTW Numerals
	Read and write numbers to 20	Quantity is represented with symbols.	as above & HWOT
	Orally count to 50	Counting is a repeating pattern.	Game: Count Me Out
	Skip count by twos up to 10, by fives up to 20, and by tens to 50	Counting patterns can be created.	MTW: Pattern II
	Count up to 15 objects with 1:1 correspondence	Numbers spoken represent a quantity.	Investigations: <i>Developing Number Sense</i> ; Counting Jar;
	Match number symbols to groups of objects up to fifteen	Number symbols represent a quantity.	Investigations: <i>Developing Number Sense</i>

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	Use the terms more and greater, less and fewer, and same when presented with two groups of objects that are visibly different (no more than 15 objects)	Quantities can be assessed visually.	MTW: Sorting & Comparing; Investigations: <i>Developing Number Sense</i>
Place Value	Identify the place value of each digit to 20	Numbers sitting in a specific place have a value.	MTW: Place Value
Operations	Add and subtract whole numbers 0 to 6 (symbolic)	Concepts of putting quantities together and separating	Investigations: <i>Counting Ourselves and Others</i> ; MTW: Adding & Subtracting; Concrete & Symbolic Number Operations
Problem Solving	Solve oral word problems using manipulatives or drawings to demonstrate addition and subtraction facts to 6	Problems can be solved by drawing or using counters	Investigations: <i>Counting Ourselves & Others</i> ; MTW: Concrete & Symbolic Number Operations
Money	Identify by name and value the coins penny, nickel, dime, and quarter	Each coin has a name and value.	Teacher made materials
Geometry & Measurement	MLR Standard C: Students use measurement and observation to describe objects based on their sizes and shapes; model or construct two-dimensional and three-dimensional objects; solve problems involving geometric properties; compute areas and volumes based on objects properties and dimensions; and perform transformations on geometric figures. When making or calculating measures students use estimation to check the reasonableness of results.		
Geometric Figures	Name the shapes: triangle, square, rectangle, circle, hexagon, trapezoid, rhombus	Shapes are made with lines and angles and each shape has a name.	Investigations: <i>Exploring Geometry</i> ; teacher made materials
	Draw the shapes: triangle, square, rectangle, circle	Shapes can be drawn.	Teacher made materials

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	Sort the shapes triangle, square, rectangle, circle by attributes: curves, corners (angles), straight lines, number of sides	Shapes have different attributes.	Teacher made materials (table)
Measurement	Use non standard units to measure objects using the comparison terms taller, longer and shorter	Things can be measured; units of measure help us to describe the size of objects.	Investigations and MTW: various activities
	Tell time to the hour	Clocks can be analog or digital to display time.	Judy clocks; clock stamps
	Be introduced to the concept of temperature through discussion of daily weather	Air temperature can be measured; temperature regulates weather and how we dress.	Teacher made materials; thermometers
	Use calendar to identify dates or find events	Calendars show time.	Monthly calendars (teacher made).
	Say the seven days of the week in order; identify yesterday, today, and tomorrow	Each day of the week has a name.	
Functions & Algebra	MLR Standard D: Students use symbols to represent or model quantities, patterns, and relationships and use symbolic manipulation to evaluate expressions and solve equations. Students solve problems using symbols, tables, graphs, and verbal rules choosing the most effective representation and converting among representations.		
Patterns	Identify, extend, create, and record up to three element patterns using objects, colors, and shapes	Similar patterns may show up in many places in nature and in the things people make. Patterns have	Investigations: <i>Exploring Pattern</i> ; MTW Pattern I and II
	Recognize number patterns, e.g., skip counting by twos to ten, by fives to fifty, and by tens to one hundred	Number patterns can be created and used for quick counting.	MTW Pattern II

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	Sorts objects into a group using one attribute; resorts same group using a different attribute, using the attributes shape, color, size, thickness	Objects can be sorted using attributes.	MTW: Sorting and Classification
Data, Statistics, & Probability	MLR Standard B: Students make measurements and collect, display, evaluate, analyze, and compute with data to describe or model phenomena and to make decisions based on data. Students compute statistics to summarize data sets and use concepts of probability to make predictions and describe the uncertainty inherent in data collection and measurement.		
Graphs	Given simple representations (pictographs, tally charts, bar graphs) verbalizes which has more, less, or equal/same	Data can be organized into a graph and simple graphs can help to tell about observations.	MTW: Graphing
	Given a simple representation (pictograph, tally chart, bar graph), create questions, answers questions and forms conclusions about the data	Conclusions can be drawn from graph data.	MTW: Graphing
	Develop a survey question to collect data.	People can collect data to gain information.	MTW: Graphing