

Second Grade Mathematics Content Standards and Objectives

Standard 1:	Number and Operations	
M.S.2.1	<p>Through communication, representation, reasoning and proof, problem solving, and making connections within and beyond the field of mathematics, students will</p> <ul style="list-style-type: none"> • demonstrate understanding of numbers, ways of representing numbers, and relationships among numbers and number systems, • demonstrate meanings of operations and how they relate to one another, and compute fluently and make reasonable estimates. 	
Objectives	Students will	PLT Activity and Page
M.O.2.1.1	read, write, order, and compare numbers to 1,000 using multiple strategies (e.g. symbols, manipulatives, number line).	
M.O.2.1.2	justify any number as odd or even and determine if a set has an odd or even number of elements.	
M.O.2.1.3	count and group concrete manipulatives by ones, tens, and hundreds to 1,000.	
M.O.2.1.4	model and identify place value of each digit utilizing standard and expanded form through 1000.	
M.O.2.1.5	identify and read any ordinal number to identify position in a sequence.	
M.O.2.1.6	round any 3-digit number to both the nearer 10 and 100.	
M.O.2.1.7	Identify and explain fractions as part of a whole and as part of a set/group using models.	
M.O.2.1.8	model and justify the relationship between addition and subtraction (e.g., identity element of addition, associative property, commutative property, inverse operations, fact families).	
M.O.2.1.9	demonstrate quick recall of basic addition facts with sums to 18 and corresponding subtraction facts.	
M.O.2.1.10	model 2- and 3-digit addition and subtraction with regrouping using multiple strategies.	
M.O.2.1.11	add and subtract 2- and 3-digit numbers without regrouping.	
M.O.2.1.12	use rounding to analyze the reasonableness of a sum or a difference.	
M.O.2.1.13	create story problems that require one or two-step procedures, using a variety of strategies explain the reasoning used , justify the procedures selected and present the results.	
Standard 2:	Algebra	

M.S.2.2	Through communication, representation, reasoning and proof, problem solving, and making connections within and beyond the field of mathematics, students will <ul style="list-style-type: none"> • demonstrate understanding of patterns, relations and functions, • represent and analyze mathematical situations and structures using algebraic symbols, • use mathematical models to represent and understand quantitative relationships, and analyze change in various contexts. 	
Objectives	Students will	PLT Activity and Page
M.O.2.2.1	analyze, describe, extend and create a growing pattern using objects or numbers.	
	e variable produces a change in another variable	
	lete and extend a variety of counting patterns, according to a given rule.	
	models to demonstrate equivalency of two numerical expressions written as a grade-appropriate number sentence.	
Standard 3:	Geometry	
M.S.2.3	Through communication, representation, reasoning and proof, problem solving, and making connections within and beyond the field of mathematics, students will <ul style="list-style-type: none"> • analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships, • specify locations and describe spatial relationships using coordinate geometry and other representational systems, • apply transformations and use symmetry to analyze mathematical situations, and using visualization, spatial reasoning, and geometric modeling. 	
Objectives	Students will	PLT Activity and Page
	identify and describe the following geometric solids according to the number of faces and edges: <ul style="list-style-type: none"> • rectangular solid • cube • cylinder • cone • pyramid 	
	compare and contrast plane and solid geometric shapes.	
	identify and draw congruent shapes that have been rotated or reflected	
	model and draw line segments and angles.	
	plot and describe the path between locations on a grid.	

M.O.2.3.6	identify similar shapes.	#1 The Shape of Things #6 Picture This!	p. 17 p. 34
Standard 4: Measurement			
M.S.2.4	Through communication, representation, reasoning and proof, problem solving, and making connections within and beyond the field of mathematics, students will <ul style="list-style-type: none"> demonstrate understanding of measurable attributes of objects and the units, systems, and processes of measurement, and apply appropriate techniques, tools and formulas to determine measurements.		
Objectives	Students will	PLT Activity and Page	
M.O.2.4.1	<ul style="list-style-type: none"> identify a real life situation to use appropriate measurement tools; over time make a hypothesis as to the change overtime using whole units: length in centimeters and inches, temperature in Celsius and Fahrenheit, weight/mass in pounds and kilograms, and design and implement a method to collect, organize, and analyze data; analyze the results to make a conclusion evaluate the validity of the hypothesis based upon collected data; design a mode of presentation (with and without technology). 	#4 Sounds Around p. 26 #16 Pass The Plants, Please p. 77 #47 Are Vacant Lots Vacant? p.200 #67 How Big is Your Tree? p.288 #71 Watch on Wetlands p.303	
M.O.2.4.2	estimate and determine the perimeter of squares, rectangles and triangles.		
M.O.2.4.3	estimate and count the number of square units needed to cover a given area using manipulatives.		
M.O.2.4.4	order events in relation to time.		
M.O.2.4.5	determine past and future days of the week and identify specific dates, given a calendar.		
M.O.2.4.6	read time to the quarter hour using an analog and digital clock.		
M.O.2.4.7	identify, count and organize coins and bills to display a variety of price values from real-life examples with a total value of one dollar or less and model making change using manipulatives.		
Standard 5: Data Analysis and Probability			
M.S.2.5	Through communication, representation, reasoning and proof, problem solving, and making connections within and beyond the field of mathematics, students will <ul style="list-style-type: none"> formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them, select and use appropriate statistical methods to analyze data, develop and evaluate inferences and predictions that are based on models, and apply and demonstrate an understanding of basic concepts of probability.		

Objectives	Students will	PLT Activity and Page
M.O.2.5.1	create, read, and interpret a pictograph with each picture representing greater than or equal to a single unit.	#67 How Big is Your Tree? p.288
M.O.2.5.2	conduct simple experiments with more than two outcomes and use the data to predict which event is more, less, or equally likely to occur if the experiment is repeated.	
M.O.2.5.3	analyze data represented on a graph using grade-appropriate questions.	
M.O.2.5.4	formulate questions, collect data, organize and display as a chart, table or bar graph.	#4 Sounds Around p. 26 #25 Birds and Worms p.111 #47 Are Vacant Lots Vacant? p.200 #67 How Big is Your Tree? p.288