Second Grade Mathematics Indicators
Class Summary

Second Grade																								
	Assessment	**Type of Intervention**																						
Number, Number Sense and Operations Standard																								
Number and Number System																								
1																								
Use place value concepts to represent, compare and																								
order whole numbers using physical models, numerals																								
and words, with ones, tens, and hundreds. Ex:																								
a) Recognize 10 can mean "10 ones" or a single																								
entity (1 ten) through physical models and																								
trading games.																								
b) Read and write 3-digit numerals (e.g., 243 as two																								
hundred forty three, 24 tens and 3 ones, or 2																								
hundreds and 43 ones, etc.)																								
2																								
Recognize and classify numbers as even or odd.																								
3																								
Count money and make change using coins and																								
a dollar bill.																								
4																								
Represent and write the value of money using the																								
c sign and in decimal form when using the $ sign.																								
5																								
Represent fractions (halves, thirds, fourths, sixths and																								
eighths), using words, numerals and physical models.																								
Ex:																								
a) Recognize that a fractional part can mean different																								
amounts depending on the original quantity.																								
b) Recognize that a fractional part of a rectangle																								
does no have to be shaded with contiguous parts.																								

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	Assessment	Types of Intervention																						
Number, Number Sense and Operations Standard																								
Number and Number System																								
5 - Cont.																								
c) Identify and illustrate parts of a whole and parts of sets of objects.																								
d) Compare and order physical models of halves, thirds and fourths in relations to 0 to 1.																								
Meaning of Operations																								
6																								
Model, represent and explain subtraction as comparison, take-away and part-to-whole; e.g., solve missing addend problems by counting up or subtracting, such as " I had six baseball cards, my sister gave me more, and I now have ten. How many did she give me? Can be represented as 6 + ? = 10 or 10 - 6 = ?.																								
7																								
Model, represent and explain multiplication as repeated addition, rectangular arrays and skip counting.																								
8																								
Model, represent and explain division as sharing equally and repeated subtraction.																								
9																								
Model and use the commutative property for addition.																								

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	Assessment	Types of Intervention																						
Computation and Estimation																								
10																								
Demonstrate fluency in addition facts with addends																								
through 9 and corresponding subtractions;																								
e.g., 9 + 9 = 18, 18 - 9 = 9.																								
11																								
Add and subtract multiples of 10.																								
12																								
Demonstrate multiple strategies for adding and																								
subtracting 2- or 3-digit whole numbers, such as:																								
a) compatible numbers;																								
b) compensatory numbers;																								
c) informal use of commutative and associative																								
properties of addition.																								
13																								
Estimate the results of whole number addition and																								
subtraction problems using front-end estimation, and																								
judge the reasonableness of the answers.																								
Measurement Standard																								
Measurement Units																								
1																								
Identify and select appropriate units of measure for:																								
a) length - centimeters, meters, inches, feet or yards;																								
b) volume (capacity) - liters, cups, pints or quarts;																								
c) weight - grams, ounces or pounds;																								
d) time - hours, half-hours, quarter hours or																								
minutes and time designations, a.m. or p.m.																								

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Second Grade																								
	Assessment	**Types of Intervention**																						
Measurement Units																								
2																								
Establish personal or common referents for units of																								
measure to make estimates and comparisons; e.g.,																								
the width of a finger is a centimeter, a large bottle of																								
soda pop is 2 liters, a small paper clip weighs about																								
one gram.																								
3																								
Describe and compare the relationships among units of																								
measure, such as centimeters and meters; inches, feet																								
and yards; cups, pints and quarts; ounces and pounds;																								
and hours, half-hours, and quarter-hours; e.g., how																								
many inches in a foot?																								
4																								
Tell time to the nearest minute interval on digital and																								
to the nearest 5 minute interval on analog (dial)																								
timepieces.																								
Use Measurement Techniques and Tools																								
5																								
Estimate and measure the length and weight of																								
common objects, using metric and U.S. customary																								
units, accurate to the nearest unit.																								
6																								
Select and use appropriate measurement tools; e.g.,																								
a ruler to draw a segment 3 inches long, a measuring																								
cup to place 2 cups of rice in a bowl, a scale to weigh																								
50 grams of candy.																								

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	Assessment	Types of Intervention																						
Use Measurement Techniques and Tools																								
7																								
Make and test predictions about measurements, using																								
different units to measure the same length or volume.																								
Geometry and Spatial Sense Standard																								
Characteristics and Properties																								
1																								
Identify, describe, compare and sort three-dimensional																								
objects i.e., cubes, spheres, prisms, cones, cylinders																								
and pyramids) according to the shape of the faces or																								
the numbers of faces, edges or vertices.																								
2																								
Predict what new shapes will be formed by combining																								
or cutting apart existing shapes.																								
3																								
Recognize two-dimensional shapes and three-																								
dimensional objects from different positions.																								
Spatial Relationships																								
4																								
Identify and determine whether two-dimensional shapes																								
are congruent (same shape and size) or similar (same																								
shape different size) by copying or using superposition																								
(lay one thing on top of another).																								

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	Assessment	**Types of Intervention**																					
Transformation and Symmetry																							
5																							
Create and identify two-dimensional figures with line																							
symmetry; e.g., what letter shapes, logos, polygons																							
are symmetrical?																							
Patterns, Functions and Algebra Standard																							
Use Patterns, Relations and Functions																							
1																							
Extend simple number patterns (both repeating and																							
growing patterns), and create similar patterns using																							
different objects, such as using physical materials or																							
shapes to represent numerical patterns.																							
2																							
Use patterns to make generalizations and predictions;																							
e.g., determine a missing element in a pattern.																							
3																							
Create new patterns with consistent rules or plans, and																							
describe the rule or general plan of existing patterns.																							
Use Algebraic Representations																							
4																							
Use objects, pictures, numbers and other symbols to																							
to represent a problem situation.																							
5																							
Understand equivalence and extend the concept to																							
situations involving symbols; e.g., 4 + 5 = 9 and																							
9 = 4 + 5, and 4 + 5 = 3 + 6 = △ + □																							

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	Assessment	**Types of Intervention**																						
Use Algebraic Representations																								
6																								
Use symbols to represent unknown quantities and																								
identify values for symbols in an expression or																								
equation using addition and subtraction;																								
e.g., □ + ○ = 10, △ + △ = 4.																								
Analyze Change																								
7																								
Describe quantitative and quantitative changes																								
especially those involving addition and subtraction;																								
e.g., a student growing taller versus a student growing																								
two inches in one year.																								
Data Analysis and Probability Standard																								
Data Collection																								
1																								
Pose questions, use observations, interviews and																								
surveys to collect data, and organize data in charts,																								
picture graphs and bar graphs.																								
2																								
Read, interpret and make comparisons and predictions																								
from data represented in charts, line plots, picture																								
graphs and bar graphs.																								
3																								
Read and construct simple timelines to sequence events.																								

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	Assessment	Types of Intervention																						
Data Analysis and Probability Standard																								
Statistical Methods																								
4																								
Write a few sentences to describe and compare																								
categories of data represented in a chart or graph, and																								
make statements about the data as a whole.																								
5																								
Identify untrue or inappropriate statements about																								
a given set of data.																								
6																								
Recognize that data may vary from one population to																								
another; e.g., favorite TV shows of students and of																								
parents.																								
Probability																								
7																								
List some of the possible outcomes of a simple																								
experiment, and predict whether given outcomes																								
are more, less or equally likely to occur.																								
8																								
Use physical models and pictures to represent possible																								
arrangements of 2 or 3 objects.																								