

# SCOPE AND SEQUENCE

## NUMBER SENSE

NUMBER AND QUANTITATIVE REASONING	K	1	2	3	4	5	6
<b>WHOLE NUMBERS</b>							
Meaning of numbers	X	X	X	X	X	X	X
<b>Read and write numbers</b>							
to 30	X	M					
to 100		X	X	M	M		
to 1,000			X	X	M	M	M
in the ten thousands				X	X	M	M
in the millions					X	X	M
in the billions						X	M
Count	X	X	X	X			
<b>Place value</b>							
tens and ones	X	X	X				
to 100		X	X	M	M		
to 1,000			X	X	M	M	
to 10,000				X	M	M	M
in the millions					X	X	M
in the billions						X	M
Expanded form		X	X	X	X	X	M
<b>Compare and order</b>							
to 10 (with objects)	X	M					
to 100 (using symbols)		X	X	M	M	M	M
to 1,000 (using symbols)			X	X	M	M	M
to 10,000 (using symbols)				X	X	X	M
in the millions (using symbols)					X	X	M
in the billions (using symbols)						X	M
Make reasonable estimates	X	X	X	X	X	X	X
<b>Rounding</b>							
to the nearest ten, hundred, or thousand				X	X	X	M
to nearest ten thousand through nearest million					X	X	M
Even/odd		X	X	X	M	M	M
Ordinal numbers	X	X	X				
<b>Factor whole numbers</b>							
Multiples					X	X	X
Divisibility					X	X	X
Prime and composite					X	X	X
Least common multiple						X	X
Common factors						X	X
Greatest common factor						X	X
Powers and exponents						X	X
Factor whole numbers					X	X	X
Prime factors					X		X
Prime factorization					X		X
Square numbers and square roots.							X
<b>X = TEACH / M = REINFORCE &amp; MAINTAIN</b>							1

NUMBER SENSE							
NUMBER AND QUANTITATIVE REASONING	K	1	2	3	4	5	6
<b>MONEY</b>							
Identify coins		X		X			
Value of coins		X		X	M		
count and trade amounts		X		X			
make change				X	M		
Value of collection of coins and bills				X	M		
count and trade amounts				X	M	M	
make change				X	M	M	M
Compare amounts and prices		X		X	X	M	M
Equivalent amounts		X		X	X	M	M
Use decimal notation and/or dollar and cents symbols		X		X	X	X	M
<b>DECIMALS</b>							
Meaning of decimals					X	X	M
<b>Read and write decimals</b>							
to tenths					X	X	M
to hundredths					X	X	M
to thousandths						X	M
to ten-thousandths						X	M
Locate on number line					X	X	M
Relate to fractions					X	X	X
<b>Decimal place value</b>							
to hundredths					X	X	X
to thousandths					X	X	X
to ten-thousandths						X	X
<b>Compare and order</b>							
to hundredths					X	X	X
to thousandths						X	X
to ten-thousandths						X	X
Equivalent decimals					X	X	X
Relate to percent					X	X	X
Decimals greater than 1					X	X	M
Round					X	X	X
Terminating/repeating decimals						X	X
Nonrepeating decimals							X
Scientific notation							X
<b>X = TEACH / M = REINFORCE &amp; MAINTAIN</b>							2



NUMBER SENSE							
OPERATION AND QUANTITATIVE REASONING	K	1	2	3	4	5	6
<b>WHOLE NUMBERS</b>							
<b>Addition</b>							
Meaning of addition	X	X	X	M	M	M	M
Concrete objects, numbers less than 10	X	X			M		
Addition facts (sums to 12)		X	X	M	M		
Addition facts (sums to 20)			X	M	M		
<b>Basic-fact strategies</b>							
counting on	X	X	X	M	M		
doubles and doubles plus one		X	X	M	M		
make a ten		X	X	M	M		
Column addition			X	X	M	M	M
Fact families/inverse relationship between + and -		X	X	M	M	M	M
Properties		X	X	X	X	X	M
3 or more addends		X	X	X	X	M	M
2-digit numbers, no regrouping			X	X	M	M	M
2-digit numbers, with regrouping			X	X	M	M	M
using mental math	X	X	X	M	M	M	M
3-digit numbers				X	X	M	M
4-digit numbers				X	X	M	M
Greater numbers					X	X	M
Estimate sums			X	X	X	X	X
<b>Subtraction</b>							
Meaning of subtraction	X	X	X	M	M	M	M
Concrete objects, numbers less than 10	X	X			M		
Subtraction facts (differences from 12)		X	X	M	M		
Subtraction facts (differences from 20)			X	M	M		
Counting up		X	X	X	X	X	X
<b>Basic-fact strategies</b>							
counting back		X	X	M	M		
doubles and doubles minus one		X	X	M	M		
Missing addends		X	X	X	M	M	M
2-digit numbers, no regrouping			X	X	M	M	M
2-digit numbers, with regrouping			X	X	M	M	M
Using mental math		X	X	M	M	M	M
3-digit numbers				X	M	M	M
4 digit numbers				X	X	M	M
Greater numbers					X	X	M
With zeros		X	X	X	X	X	M
Checking subtraction			X	X	X	X	M
Estimate differences			X	X	X	X	X
<b>X = TEACH / M = REINFORCE &amp; MAINTAIN</b>							4

NUMBER SENSE							
OPERATION AND QUANTITATIVE REASONING	K	1	2	3	4	5	6
<b>Multiplication</b>							
Meaning of Multiplication				X	X	M	M
Multiplication facts for 2s, 5s, and 10s				X	M	M	M
Multiplication facts to 10 X 10				X	X	M	M
Multiplication facts to 12 X 12					X	X	M
Basic-fact strategies							
skip-counting				X	M	M	
break-apart numbers				X	X	X	
doubling				X	X		
Order Property				X	M	X	
Fact families/inverse relationship between $\times$ and $\div$				X	X	M	M
Estimate products				X	X	X	X
Multiples of 10				X	X	X	M
Multidigit by 1-digit factor				X	X	M	M
Multidigit by 2-digit factor					X	X	M
Multidigit by 3-digit factor						X	M
Multidigit by 4-digit factor							M
Exponents							X
Properties					X	X	X
<b>Division</b>							
Meaning of division				X	X	X	M
Model and compute quotient				X	X	X	X
Division facts for 2s, 3s, 4s, 5s, 6s, 7s, 8s, 9s, 10s				X	X	M	X
Division facts for 11s and 12s				X	X	X	X
Missing factors				X	X	X	M
Basic-fact strategies							
inverse operations				X	X	X	M
Fact families				X	X	M	
Remainders				X	X	X	M
Interpret remainders				X	X	X	X
0 and 1 in division				X	M	M	M
Multidigit by 1-digit divisor, no remainder				X	X	X	M
Multidigit by 1-digit divisor, with remainder				X	X	X	M
Multidigit by 2-digit divisor						X	M
Zeros in the quotient				X	X	X	M
Estimate quotients				X	X	X	M
Divisibility					X	X	X
Determine unit cost				X	X	X	X
<b>X = TEACH / M = REINFORCE &amp; MAINTAIN</b>							5

NUMBER SENSE							
OPERATION AND QUANTITATIVE REASONING	K	1	2	3	4	5	6
<b>MONEY</b>							
Add			X	X	X	M	M
Subtract			X	X	X	M	M
Multiply				X	X	X	M
Divide				X	X	X	M
Estimate sums, differences			X	X	X	X	M
Estimate products, quotients					X	X	X
<b>DECIMALS</b>							
Addition							
Meaning of addition					X	X	M
Sums to two decimal places					X	X	X
Sums to three decimal places						X	X
Sums to more than three decimal places						X	X
Estimate sums					X	X	X
Subtraction							
Meaning of subtraction					X	X	M
Differences to two decimal places					X	X	X
Differences to three decimal places						X	X
Differences to more than three decimal places						X	X
Estimate differences					X	X	X
Multiplication							
Meaning of multiplication						X	X
Decimal by a whole number						X	X
Decimal by a decimal						X	X
By powers of 10						X	X
Place the decimal point						X	X
Place zeros in the product						X	X
Estimate products						X	X
Round products						X	X
Division							
Meaning of division					X	X	X
Decimal by a whole number						X	X
Decimal by a decimal							X
By powers of 10						X	X
Place the decimal point						X	X
Place zeros in the quotient						X	X
Estimate quotients (compatible numbers)						X	X
Round quotients							X
Repeating/terminating quotients.							X
<b>X = TEACH / M = REINFORCE &amp; MAINTAIN</b>							<b>6</b>

NUMBER SENSE							
OPERATION AND QUANTITATIVE REASONING	K	1	2	3	4	5	6
<b>FRACTIONS</b>							
<b>Addition</b>							
Meaning of addition					X	X	X
Like denominators					X	X	M
Unlike denominators					X	X	X
Estimate sums						X	X
Mixed numbers						X	X
<b>Subtraction</b>							
Meaning of subtraction					X	X	X
Like denominators					X	X	M
Unlike denominators					X	X	X
Estimate differences						X	X
Mixed numbers						X	X
Mixed numbers with renaming						X	X
<b>Multiplication</b>							
Meaning of multiplication							X
Fraction by a whole number							X
Fraction by a fraction							X
Fraction and mixed number							X
Estimate products							X
Mixed numbers							X
<b>Division</b>							
Meaning of division							X
Fraction by a whole number							X
Whole number by fraction							X
Fraction by a fraction							X
Estimate quotients							X
Mixed numbers							X
<b>INTEGERS</b>							
Meaning of addition and subtraction							
Use a number line to compute							
Add							
Subtract							
Multiply							
Divide							
<b>ESTIMATE ANSWERS</b>							
Rounding				X		X	X
Benchmarks				X	X	X	M
Compatible numbers						X	X
<b>X = TEACH / M = REINFORCE &amp; MAINTAIN</b>							<b>7</b>

ALGEBRA AND FUNCTIONS							
ALGEBRA	K	1	2	3	4	5	6
<b>CLASSIFY</b>							
Identify and sort by attributes	X	X	X	X	X	X	X
determine objects that don't belong	X	X	X	X	X	X	X
<b>PROPERTIES</b>							
Of whole numbers		X	X	X	X	X	X
Associative and Commutative, of addition		X	X	M	M	X	X
Associative and Commutative, of multiplication				X		X	X
Distributive						X	X
0 and 1		X	X	X	M	M	M
<b>EQUATIONS AND EXPRESSIONS</b>							
Number sentences for addition and subtraction	X	X	X	X	X	X	X
Number sentences for multiplication and division				X		X	X
Use symbols: +, -, =	X	X	X	X	X	X	M
Use symbols: x, ÷				X		X	M
Missing addend		X	X	X	X	X	X
Missing factor				X		X	X
Write numerical expressions		X	X	X	X	X	X
Evaluate numerical expressions		X	X	X	X	X	X
Match problem situation and expression				X	X	X	X
Formulas				X	X	X	X
Order of operations						X	X
Variables				X	X	X	X
Use parentheses				X	X	X	X
Write and evaluate algebraic expressions					X	X	X
with one variable					X	X	X
with two variables							
with three variables							
Write number sentence/equation for problem situation		X	X	X	X	X	X
Create problem situation for number sentence/equation		X	X	X	X	X	X
<b>ALGEBRA AND FUNCTIONS</b>							
ALGEBRA	K	1	2	3	4	5	6
<b>Solve equations</b>							
1-step addition and subtraction equations		X	X	X	X	X	X
1-step multiplication and division equations				X		X	X
modeling 2-step equations							X
equations with two variables							X
with integers							X
with rational numbers							X
linear equations						X	X
Use number sentence/equation to solve problem		X	X	X	X	X	X
Relate graphs and equations					X	X	X
Relate tables, graphs, and rules					X	X	X
<b>INEQUALITIES</b>							
Compare numbers	X	X	X	X	X	X	X
Inequality symbols: <, >			X	X	X	X	X
Algebraic inequality							X
Write inequality for problem situation							X
solve inequalities							X
Use to solve problem							X
<b>X = TEACH / M = REINFORCE &amp; MAINTAIN</b>							<b>8</b>





MEASUREMENT AND GEOMETRY							
MEASURING OBJECTS	K	1	2	3	4	5	6
<b>CONCEPTS</b>							
Choose appropriate tools/units to measure or draw			X	X	X	X	X
angles				X	X	X	X
parallel and perpendicular lines				X	X	X	M
polygons and circles				X		X	M
Precision/accuracy						X	X
<b>LENGTH</b>							
Meaning linear measurement	X	X	X	X	X	X	X
Nonstandard units	X	X	X	X	X		
Compare and order	X	X	X	X	X	X	M
Estimate	X	X	X	X	X	X	M
Customary units		X	X	X	X	X	X
measure to the nearest inch			X	X	M	M	M
measure to fractional part of an inch				X	X	X	X
Metric units						X	X
measure to the nearest centimeter						X	M
measure to the nearest millimeter						X	X
Relate units				X	X	X	X
choose appropriate units			X	X	X	X	X
Change units within a system				X	X	X	X
Compare/convert units between systems							X
Apply distance formula							X
<b>CAPACITY</b>							
Meaning of capacity		X	X	X	X	X	M
Nonstandard units				X			
Compare and order				X	X	X	M
Estimate				X	X	X	M
Customary units				X	X	X	M
Metric units						X	X
Relate units				X	X	X	X
choose appropriate units				X	X	X	M
Change units within a system				X	X	X	X
Compare/convert units between systems							X
<b>MEASUREMENT AND GEOMETRY</b>							
MEASURING OBJECTS	K	1	2	3	4	5	6
<b>WEIGHT/MASS</b>							
Meaning of weight/mass		X	X	X	X	X	M
Nonstandard units				X			
Compare and order				X	X	X	M
Estimate				X	X	X	M
Customary units				X	X	X	M
Metric units						X	X
Relate units				X	X	X	X
choose appropriate units				X	X	X	M
Change units within a system				X	X	X	X
Compare/convert units between systems							X
<b>TEMPERATURE</b>							
Meaning of temperature				X	X		M
Read a thermometer: Fahrenheit and Celsius				X	X		M
Meaning of negative numbers							X
Computing temperature changes					X		X
Change units between systems: Fahrenheit/Celsius							X
<b>X = TEACH / M = REINFORCE &amp; MAINTAIN</b>							













STATISTICS, DATA ANALYSIS, AND PROBABILITY							
STATISTIC AND DATA ANALYSIS	K	1	2	3	4	5	6
<b>ANALYZING DATA</b>							
Ask/answer questions about data	X	X	X	X	X	M	M
Interpret one-variable graphs	X	X	X	X	X	X	M
Interpret two-variable graphs					X	X	X
Interpret tables		X	X	X	X	X	M
Compare data		X	X	X	X	X	M
Compare data sets of different sizes						X	M
Compare/choose appropriate representations			X		X	X	X
Identify misleading graphs							X
Choose scale			X	X	X	X	X
Identify outliers					X	X	X
Find range					X	X	M
Measures of central tendency							
find mean (average)					X	X	M
find median					X	X	M
find mode					X	X	M
compare/analyze measures						X	X
determine effects on measures of adding data						X	X
determine effects of outliers							X
Relate to conclusions the way data is displayed						X	X
Evaluate conclusions based on data					X	X	X
Make predictions				X	X	X	X
Misleading graphs							X
<b>STATISTICS, DATA ANALYSIS, AND PROBABILITY</b>							
PATTERNS	K	1	2	3	4	5	6
<b>GEOMETRIC PATTERNS</b>							
Identify and describe	X	X	X	X	X	X	X
Extend	X	X	X	X	X	X	X
Generate	X	X	X	X	X	X	X
<b>COLOR/NUMERIC/RHYTHMIC PATTERNS</b>							
Write a rule					X	X	X
Identify and describe	X	X	X	X	X	X	X
Extend	X	X	X	X	X	X	X
Generate	X	X	X	X	X	X	X
<b>LINEAR NUMBER</b>							
Identify and describe	X	X	X	X	X	X	X
Extend	X	X	X	X	X	X	X
Generate			X	X	X	X	X
<b>X = TEACH / M = REINFORCE &amp; MAINTAIN</b>							<b>18</b>





MATHEMATICAL REASONING							
PROBLEM SOLVING STRATEGIES/SKILLS	K	1	2	3	4	5	6
<b>HEURISTIC STRATEGIES</b>		X	X	X	X	X	X
Use logical reasoning	X	X	X	X	X	X	X
Predict and test		X	X	X	X	X	X
Make a table or graph	X	X	X	X	X	X	X
Find a pattern	X	X	X	X	X	X	X
Draw a picture or diagram	X	X	X	X	X	X	X
Write a number sentence		X	X	X	M		
Work backward		X	X	X	X	X	X
Break a problem into simpler parts/solve a simpler problem		X	X	X	X	X	X
Make a model or act it out	X	X	X	X	X	X	X
Write an equation			X		X	X	X
Make an organized list		X	X	X	X	X	X
Choose a strategy		X	X	X	X	X	X
<b>SKILLS</b>							
Identify relationships		X	X	X	X	X	X
Estimate or exact answer	X	X	X	X	X	X	X
Sequence events			X	X	M	M	M
Too much/too little information		X	X	X	X	X	X
Multistep problems		X	X	X	X	X	X
Choose the operation		X	X	X	X	X	X
Draw conclusions		X	X	X	X	X	X
Interpret the remainder				X	X	X	X
Use a graph	X	X	X	X	X	X	X
Make generalizations				X	X	X	X
Sequence information				X	X	X	X
Evaluate reasonableness of answers		X	X	X	X	X	X
Use a table		X	X	M	M	M	M
Use a formula						X	X
Make decisions			X			X	X
Sequence and prioritize information				X	X	X	X
Relevant or irrelevant information		X	X	X	X	X	X
<b>APPLICATIONS</b>							
Number Sense	X	X	X	X	X	X	X
Algebra and Functions		X	X	X	X	X	X
Measurement and Geometry	X	X	X	X	X	X	X
Statistics, Data Analysis		X	X	X	X	X	X
<b>X = TEACH / M = REINFORCE &amp; MAINTAIN</b>							21

MATHEMATICAL REASONING							
REASONING	K	1	2	3	4	5	6
<b>CRITICAL THINKING AND LOGICAL REASONING</b>							
Classify and sort	X	X	X	X	X	X	X
Identify, extend, and use patterns	X	X	X	X	X	X	X
Order and sequence	X	X	X	X	X	X	X
Make generalizations			X	X	X	X	X
Compare and contrast	X	X	X	X	X	X	X
Draw conclusions	X	X	X	X	X	X	X
Use logical reasoning	X	X	X	X	X	X	X
Make and test predictions	X	X	X	X	X	X	X
Explain and justify answers	X	X	X	X	X	X	X
Evaluate evidence and conclusions				X	X	X	X
Interpret charts, tables, and graphs	X	X	X	X	X	X	X
Check reasonableness of results	X	X	X	X	X	X	X
<b>VISUAL THINKING AND LOGICAL REASONING</b>							
Spatial relationships	X	X	X	X	X	X	X
Visual patterns	X	X	X	X	X	X	X
Use visual representations to solve problems	X	X	X	X	X	X	X
<b>DECISION MAKING</b>							
Decide when to estimate				X	X	X	X
Decide on a computation method		X	X	X	X	X	X
Decide whether answer is reasonable	X	X	X	X	X	X	X
Choose from options or alternatives	X	X	X	X	X	X	X
<b>CREATIVE THINKING</b>							
Solve nonroutine problems		X	X	X	X	X	X
Generate problems	X	X	X	X	X	X	X
Choose alternative ways to solve problems		X	X	X	X	X	X
<b>MATHEMATICAL REASONING</b>							
PROCESSES	K	1	2	3	4	5	6
<b>COMMUNICATION</b>							
Drawing	X	X	X	X	X	X	X
Writing		X	X	X	X	X	X
Talking	X	X	X	X	X	X	X
<b>CONNECTIONS</b>							
Mathematical	X	X	X	X	X	X	X
Cross-curricular	X	X	X	X	X	X	X
Everyday	X		X	X	X	X	X
<b>MULTIPLE REPRESENTATIONS</b>							
Different manipulatives	X	X	X	X	X	X	X
Different models	X	X	X	X	X	X	X
Manipulatives and models	X	X	X	X	X	X	X
Manipulatives, words, and symbols	X	X	X	X	X	X	X
Models, words, and symbols	X	X	X	X	X	X	X
<b>TOOLS</b>							
Calculator				X	X	X	X
Software	X	X	X	X	X	X	X
Manipulatives	X	X	X	X	X	X	X
Measuring tools	X	X	X	X	X	X	X
ruler		X	X	X	X	X	X
protractor					X	X	X
Compass					X	X	X
<b>X = TEACH / M = REINFORCE &amp; MAINTAIN</b>							<b>22</b>