

Grade One
Content Standard #1: Number Sense

Connecticut Framework	Mansfield Objectives	Lessons/Materials/Activities	Assessments
1. Recognize and form numerals.	a. Recognize and form numerals (0-100).		
2. Identify and order whole numbers.	a. Identify and order whole numbers (0-100).		
3. Explore numerical patterns.	a. Identify the number 1 more, 1 less using the numbers 0-100. b. Introduce place value concepts to 100 with the use of manipulatives.		
4. Use numbers in various settings (e.g. skip counting) including counting, locating, comparing, measuring, and labeling.	a. Count the number of objects in a set (0-100). b. Rote count to 100 by tens, to 50 by fives and to 20 by twos. c. Use numbers in various settings (e.g. skip counting).		
5. Discuss and explore fraction concepts with concrete materials.	a. Explore and identify equal parts of a whole for halves, thirds and fourths using concrete materials. b. Explore and identify fractional parts of sets for halves using concrete materials.		
6. Identify and use ordinal numbers.	a. Identify and use ordinal numbers first through tenth. b. Read ordinal word names first through tenth.		

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7. Demonstrate conservation of number prior to symbolic experiences with numbers.	a. Demonstrate conservation of number prior to symbolic experiences with numbers (0-10).		
8. Use appropriate technology to enhance development of number sense.	a. Use appropriate technology to enhance development of number sense.		
9. Read, write, and represent numerals in words and numerals in written and oral form.	a. Count to, read, and write the numerals 0-100. b. Read word names one to ten. c. Understand and use correctly the following vocabulary and comparatives (eg. tall, taller and tallest). set, number; how many, fewer than, less than, as many as, same as, more than, greater than, most, least; tall, long; near, far; heavy, light; young, old; high, low; narrow, wide; dozen, pair.		

Grade One
Content Standard #2: Operations

Connecticut Framework	Mansfield Objectives	Lessons/Materials/Activities	Assessments
<p>1. Develop and verbalize their conceptual understandings of addition and subtraction.</p>	<ul style="list-style-type: none"> a. Demonstrate and verbalize understanding of joining of sets using manipulatives or pictures. b. Demonstrate and verbalize understanding of removal of a subset using manipulatives or pictures. c. Match number from sentences to pictures using addition and subtraction. d. Draw an appropriate picture, given a number sentence. e. Identify the appropriate operation or write a number sentence from addition and subtraction story problems presented orally or in written form. f. Understand and use the symbols +, -, and = and use them correctly. g. Understand and use the following language: addition, subtraction, plus, minus, and equal. h. Introduce and model the following language: sum, difference, and addend. 		

Grade One
Content Standard #2: Operations

Connecticut Framework	Mansfield Objectives	Lessons/Materials/Activities	Assessments
2. Explore addition and subtraction operations with developmentally sequenced instruction using concrete, pictorial, and symbolic models.	<ul style="list-style-type: none"> a. Solve addition examples through sums of ten, using manipulatives and number sentences in horizontal and vertical forms. b. Add groups of tens to a sum of 100 using manipulatives. c. Solve subtraction examples from ten using manipulatives and number sentences. d. Subtract groups of ten from 100 using manipulatives. e. Understand which operation is used in a specific computation. 		
3. Discover and use the commutative property of addition.	<ul style="list-style-type: none"> a. Discover and use the commutative property of addition. b. Use inverse relationships of addition and subtraction sums to ten. c. Recognize and identify the number sentences belonging to a specific number family (e.g. fact families). 		
4. Develop and use computation strategies for operations (e.g. counting on, doubles, doubles plus or minus one).	<ul style="list-style-type: none"> a. Develop and use computation strategies for operations (e.g. counting on doubles, plus or minus one). 		
5. Develop and use mental math and estimation strategies and skills.	<ul style="list-style-type: none"> a. Develop estimation strategy skills and other mental math skills. 		

Grade One
Content Standard #2: Operations

Connecticut Framework	Mansfield Objectives	Lessons/Materials/Activities	Assessments
6. Develop fluency with the basic facts to ten for the operations of addition and subtraction (by completion of grade 1).	a. Develop fluency with the basic facts to ten for the operations of addition and subtraction.		
7. Use technology to reinforce and enhance understanding of operations.	a. Use technology to reinforce and enhance understanding of operations.		

Grade One
Content Standard #3: Estimation and Approximation

Connecticut Framework	Mansfield Objectives	Lessons/Materials/Activities	Assessments
1. Judge sets of objects for more than, less than, or same without counting.	a. Estimate how many objects are in a set. b. Estimate how many more or less.		
2. Use non-standard referents (units) for estimating simple measures (e.g. length, area, mass and volume).	a. Estimate weight, length, size, volume, and number using standard and non-standard units of measurement.		
3. Develop and use a variety of estimation strategies.	a. Develop and use a variety of estimation strategies.		
4. Use estimation strategies to determine the reasonableness of an answer.	a. Use estimation strategies to determine the reasonableness of an answer.		
5. Visually estimate length, area, and volume using various referents.	a. Estimate weight, length, size, volume, and number using standard and non-standard units of measurement.		

Grade One
Content Standard #4: Ratio, Proportion, and Percent

Connecticut Framework	Mansfield Objectives	Lessons/Materials/Activities	Assessments
1. Discuss real life experiences using simple proportions and ratios with concrete materials (e.g. if there are 10 cookies and 20 students, how many cookies many each student have?).	a. Discuss real life experiences using simple proportions and ratios with concrete materials (e.g. if there are 10 cookies and 20 students, how many cookies many each student have?).		

Grade One
Content Standard #5: Measurement

Connecticut Framework	Mansfield Objectives	Lessons/Materials/Activities	Assessments
1. Develop personal referents and non-standard measures to estimate length, area, weight, and volume.	a. Estimate and measure lengths and distances using non-standard units and inches and feet. b. Estimate and measure areas using non-standard units. c. Use cups and one half cups to measure volumes. d. Estimate the weight of an object as compared to another object.		
2. Experience comparative and qualitative measurement (e.g. more, less, equal, taller, shorter, heavier, lighter, colder, hotter).	a. Experience comparative and qualitative measurement (e.g. more, less, equal, taller, shorter, heavier, lighter, colder, hotter). b. Compare the weights of objects by balancing them against each other or with small non-standard units. c. Understand that the higher the number on a thermometer, the hotter the temperature, and the inverse. d. Read and record the temperature to the nearest ten degrees (Fahrenheit).		
3. Solve oral problems involving measurement skills.	a. Solve oral problems involving measurement skills.		
4. Tell time to the hour on analog and digital clocks (by the end of grade 1).	a. Tell time to the hour and half-hour using analog and digital clocks.		
5. Sequence time events.	a. Sequence time events.		
6. Use calendars to explore time concepts.	a. Read a calendar to determine the month, day of the week, and date. Recognize the number of days in a week and in the month. b. Name in order the days of the week. c. Introduce the months of the year.		

Grade One
Content Standard #5: Measurement

Connecticut Framework	Mansfield Objectives	Lessons/Materials/Activities	Assessments
7. Recognize penny, nickel, dime, and quarter.	a. Identify by name and tell the value of coins: penny, nickel, dime, and quarter.		
8. Compare values of sets of coins.	a. Determine the value and compare groups of coins of mixed sets of pennies, nickels, and dimes.		
9. Experience counting activities with money.	a. Count the value of a set of pennies and dimes to \$1.00 and nickels to \$.50. b. Count the value of a mixed set of coins using pennies and nickels or pennies and dimes to \$.30.		

Grade One
Content Standard #6: Spatial Relationships and Geometry

Connecticut Framework	Mansfield Objectives	Lessons/Materials/Activities	Assessments
1. Identify, classify, model, discuss, and describe the properties of plane and solid shapes using concrete and pictorial models.	a. Recognize a circle, square, rectangle, triangle, and straight and curved lines. b. Introduce solid shapes (e.g. cone, cube, pyramid, prism).		
2. Draw and/or reproduce common plane geometric shapes.	a. Recognize and draw a circle, square, triangle, rectangle, and straight and curved lines. b. Identify a line of symmetry and symmetrical shapes. c. Recognize that symmetry exists in a variety of contexts (e.g. poetry, art, music, body movement, shape, color, etc.).		
3. Explore spatial relationships using activities that involve direction, orientation, combining, dividing, transforming and changing shapes with concrete and pictorial models.	a. Explore spatial relationships using activities that involve direction, orientation, combining, dividing, transforming and changing shapes with concrete and pictorial models (e.g. geoboards, pattern blocks).		
4. Identify common geometric shapes found in the world around them (e.g. in art, nature, classroom and/or home).	a. Identify common geometric shapes found in the world around them (e.g. in art, nature, classroom, and/or home).		

Grade One
Content Standard #7: Probability and Statistics

Connecticut Framework	Mansfield Objectives	Lessons/Materials/Activities	Assessments
1. Discuss the likelihood of various events.	a. Discuss the likelihood of various events.		
2. Record and discuss results from simple probability activities.	a. Record and discuss results from simple probability activities (e.g. dice, beans).		
3. Engage in chance activities using number cubes and spinners.	a. Engage in chance activities using number cubes and spinners.		
4. Explore ways of recording, organizing, and analyzing data.	a. Explore ways of recording, organizing, and analyzing data (i.e. graphs). b. Read and draw conclusions from simple charts. c. Engage in systematic data collection.		
5. Construct and interpret real graphs, pictographs, and bar graphs.	a. Construct, read, interpret, and draw conclusions from simple pictographs and bar graphs.		
6. Make and test predictions.	a. Make and test predictions.		

Grade One
Content Standard #8: Patterns

Connecticut Framework	Mansfield Objectives	Lessons/Materials/Activities	Assessments
1. Reproduce, create, describe, and extend patterns and sequences using attributes, numbers, and geometric shapes with a variety of materials.	a. Classify objects by one attribute, and then reclassify using another attribute. b. Identify number patterns in numbers 1-100. c. Identify numbers that do not belong in consecutive patterns. d. Use appropriate technology to enhance understanding of patterns (e.g. Kid Pix, Patterning Program).		
2. Identify rules and extend patterns based on the rules.	a. Identify rules for patterns based on one or more attributes such as color, shape, size, etc. b. Extend patterns based on one or more attributes, such as color, shape, size, etc. c. Use patterns and patterning techniques to solve problems.		
3. Recognize that patterns and symmetry exist in a variety of contexts (e.g. poetry, art, music, body movement, shape, color, etc).	a. Recognize that patterns and symmetry exist in a variety of contexts (e.g. poetry, art, music, body movement, shape, color, etc).		

Grade One
Content Standard #9: Algebra and Functions

Connecticut Framework	Mansfield Objectives	Lessons/Materials/Activities	Assessments
1. Use the commutative property of addition.	a. Use the commutative property of addition to ten (fact families).		
2. Use patterning to explore function activities (such as “function machines” or input-output processes).	a. Use patterning to develop computational strategies for addition and subtraction (e.g. $n+1$, $n-1$).		
3. Explore and use the concept of ordinal numbers.	a. Explore and use the concept of ordinal numbers (first through tenth).		
4. Model real-world problems using number sentences to describe the situations.	a. Model real-world problems using number sentences to describe the situations.		

Grade One
Content Standard #10: Discrete Math

Connecticut Framework	Mansfield Objectives	Lessons/Materials/Activities	Assessments
1. Represent and classify data based on attributes.	a. Represent and classify data based on attributes.		
2. Engage in systematic listing, counting, and reasoning.	a. Engage in systematic listing, counting, and reasoning.		
3. Follow and describe simple procedures and directions.	a. Follow and describe simple procedures and directions.		
4. Explore a variety of puzzles, games, and counting problems.	a. Apply mathematical concepts in games, puzzles, and counting problems. b. Use comparative vocabulary to explain relationships of objects and for problem solving.		

Grade One Resources

<i>Abbreviation</i>	Resource
<u>BBI</u>	<u>Box It Bag It</u> – grade 1/2
<u>BBK</u>	<u>Box It Bag It</u> – kindergarten
Conn	<u>Connections – Linking Manipulatives to Mathematics Gr. 1</u> (Creative Publication)
<u>CRT</u>	Criterion Reference Test – Grade One
<u>Investigations</u>	
<u>BNS</u>	Building Number Sense
<u>BTH</u>	Bigger, Taller, Heavier, Smaller
<u>HMA</u>	How Many in All (K-1)
<u>NGS</u>	Number Games & Story Problems
<u>OSB</u>	Quilt Squares & Block Towns
<u>SQR</u>	Survey Questions & Secret Rules
<u>MTG</u>	Math Thinking - Gr. 1
<u>MTW</u>	Math Their Way
<u>Playing Math Games</u>	Number Practice for Home & School K-2 by Ann Lewis and Francine Neugebauer
<u>RWC</u>	Reasoning with Rabbit Counters, Teddy Bear and Dinosaur
<u>SF</u>	Scott Foresman
<u>SFA</u>	Scott Foresman Assessment Sourcebook
<u>SFSE</u>	Scott Foresman Student Edition
<u>SFTE</u>	Scott Foresman Teacher Edition
SPWPB	<u>Story Problems with Pattern Blocks</u> (Creative Publications)
<u>WASP</u>	Workmat Math – Story Problems
<u>WMA & S</u>	Workmat Math – Understanding Addition and Subtraction