

Kindergarten

Content Standard #1: Number Sense

Connecticut Framework	Mansfield Objectives	Lessons/Materials/Activities	* Assessments	
1. Recognize and form numerals.	a. Recognize and write the numerals 0-10.	SF Chap. 4 & 5	NOV KMS	SFA Chap. 4 & 5
2. Identify and order whole numbers.	a. Use one to one correspondence to count one to ten.	SF Chap. 4 & 5	NOV KMS	SFA Chap. 5
	b. Orally identify number of objects in a set 0-10. c. Order one through ten and objects by size or length.	SF Chap. 6 CCM # 5 & 6	KMS	SFA Chap. 6
3. Explore numerical patterns.	a. Rote count one through thirty-one. b. Explore numerical patterns through thirty-one. c. Discuss and explore numbers through one hundred using concrete activities.	SF Chap 8 & 11 Investigation - MT # 3 Appendix/About Classroom Routines Calendar	NOV KMS SFA Chap 8 & 11	
4. Use numbers in various settings (e.g. skip counting) including counting, locating, comparing, measuring, and labeling.	a. Recognize the use of numbers in the classroom and real-life experiences. b. Identify the one more, one less, using the numbers 1-10.	Investigation -MT SF Chap Math Journal SF Calendar (each chapter) CCM #4	NOV (identify one more/less) KMS (write one more/less) SF Chap	
5. Discuss and explore fraction concepts with concrete materials.	a. Explore the fraction concepts of one half with concrete materials.	SF Chap 7	KMS SFA Chap 7	
6. Identify and use ordinal numbers.	a. Identify and use the first through tenth objects in a series.	SF Chap 5	KMS SFA Chap 7	
7. Demonstrate conservation of number prior to symbolic experiences with numbers.	a. Demonstrate conservation of number.	Math Their Way	NOV KMS	
8. Use appropriate technology to enhance development of number sense.	a. Use technology to enhance the development of number sense.	Math a Saurus Millie's Math House		

Kindergarten
Content Standard #1: Number Sense

9. Read, write, and represent numerals in words and numerals in written and oral form.	a. Recognize and write the numerals zero through ten. b. Recognize the numeral applied to a set of objects using the numbers 1-10. c. Demonstrate understanding of meaning of sets 1-10.	SF Chap 10 & 111 Math Journal Number Riddles	NOV KMS SFA Chap 10 & 11
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Kindergarten Content Standard #2: Operations

Connecticut Framework	Mansfield Objectives	Lessons/Materials/Activities	Assessments
1. Develop and verbalize their conceptual understandings of addition and subtraction.	a. Use manipulatives and pictures to demonstrate understanding of joining sets of objects (sums 1-10). b. Demonstrate understanding the concept of subtraction (less than, take away) from 10 through the use of manipulatives and pictures.	SF Chap 10 & 12 Math Journal CCM #4	KMS SFA Chap 10 & 12
2. Explore addition and subtraction operations with developmentally sequenced instruction using concrete, pictorial, and symbolic models.	a. In group discussions verbalize understanding of numerical problems that arise naturally in class. b. Introduce number sentences and names of symbols used in addition and subtraction.	CCO #4 SF Chap 10 & 12 Math Journal	KMS SFA Chap 10 & 12
3. Discover and use the commutative property of addition.	a. Explore the commutative property of addition with manipulatives.	SF #12	KMS SFA # 12
4. Develop and use computation strategies for operations (e.g. counting on, doubles, doubles plus or minus one).			
5. Develop and use mental math and estimation strategies and skills.			
6. Develop fluency with the basic facts to ten for the operations of addition and subtraction (by completion of grade 1).			
7. Use technology to reinforce and enhance understanding.		Math-A- Saurus	

Kindergarten
Content Standard #3: Estimation and Approximation

Connecticut Framework	Mansfield Objectives	Lessons/Material/Activities	Assessments
1. Judge sets of objects for more than, less than, or same without counting.	a. Recognize that sets of objects are more than, less than, or the same without counting.	SF Chap 6, 10, & 11 CCM 3 4 & 5	KMS SF Chap 6, 10 & 11
2. Use non-standard referents (units) for estimating simple measures (e.g. length, area, mass and volume).	a. Estimate length and weight using nonstandard units.	Science Structures CCM # 3 & 6 SF Chap 6 & 10b COO #3	KMS SFA Chap 6 (Form E)
3. Develop and use a variety of estimation strategies.	a. Estimate (make guesses) about weight, length, size, volume, and number.	Science Structures CCM # 3 & 6 SF Chap 6 & 10b COO #3	KMS SFA Chap 6 (Form E)
4. Use estimation strategies to determine the reasonableness of an answer.			
5. Visually estimate length, area, and volume using various referents.			

Kindergarten
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 and explore simple proportions using concrete materials and real-life experiences.		

Kindergarten
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.	<ul style="list-style-type: none"> a. Compare objects by length, using nonstandard units of measure. b. Explore linear measurements such as inches, feet, centimeters, etc. and volume measurements such as cup, 1/2 cup, etc. c. Explore temperature and thermometers. 	HMA 1 CCM 3 SF Chap 6 & 10b Math Journal Science - Weather	KMS SFA Chap 6 & 10b KMS
2. Experience comparative and qualitative measurement (e.g. more, less, equal, taller, shorter, heavier, lighter, colder, hotter).	<ul style="list-style-type: none"> a. Experience comparative qualitative measurement (e.g., more, less, equal, taller, shorter, heavier, lighter, colder, hotter). 	CCM 3, 4, 5 SF 10b&6 HMS 1	KMS SFA 6 & 10B
3. Solve oral problems involving measurement skills.			
4. Tell time to the hour on analog and digital clocks (by the end of grade 1).	<ul style="list-style-type: none"> a. Read time on a digital clock to the hour. b. Identify the face, minute hand, and hour hand of an analog clock. 	SF Chap 9	KMS
5. Sequence time events.	<ul style="list-style-type: none"> a. Use vocabulary for parts of the day (morning, noon, afternoon, day, night) and the terms yesterday, today, and tomorrow. b. Use calendars to explore sequence of time events and seasons. 	Investigations Routine Calendar SF Calendar Routine MT 3 SF Chap 9 & 11	KMS SF Chap 9 & 11
6. Use calendars to explore time concepts.	<ul style="list-style-type: none"> a. Use calendars to explore time concepts. b. Recite days of the week. c. Use calendars to introduce concept of data. 	Investigations Routine Calendar SF Calendar Routine MT 3 SF Chap 9 & 11 Science Weather Unit	KMS SF Chap 9 & 11 SFA Chap 9
7. Recognize penny, nickel, dime, and quarter (by the end of grade 1).	<ul style="list-style-type: none"> a. Identify and know the value of a penny. 	SF Chap 9 COO 2	KMS SFA Chap 9
8. Compare values of sets of coins (grade 1).	<ul style="list-style-type: none"> a. Determine the value of a set of pennies to a sum of \$.10. 	SF Chap 9 COO 2	KMS SFA Chap 9

Kindergarten
Content Standard #5: Measurement

Connecticut Framework	Mansfield Objectives	Lessons/Materials/Activities	Assessments
9. Experience counting activities with money.	a. Experience counting activities with money. b. Explore the name and value nickel, dime, quarter, and dollar.	SF Chap 9 COO 2	KMS SF Chap 9

Kindergarten
Content Standard #6: Spatial Relationships and Geometry

Connecticut Framework	Mansfield Objectives	Lessons/Materials/Activities	Assessment
1. Identify, classify, model, discuss, and describe the properties of plane and solid shapes using concrete and pictorial models.	a. Identify, classify, and describe properties of common geometric shapes (circles, triangle, square, rectangles, lines- curved and straight, diamonds, and ovals). b. Construct and discuss designs and patterns using geometric shapes.	MS & BB-all SF Chap 1,3,7 Frog Math-Sorting Buttons Science Structures	KSM SF Chap 1,3,7 Nov (shaper)
2. Draw and/or reproduce common plane geometric shapes.	a. Draw/trace common geometric shapes.	Science Structures	KSM SF Chap 1,3,7 Nov (shaper)
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 which involve direction, orientation, combining, dividing, transforming, and changing shapes with concrete and pictorial models. b. Explore activities and objects that have symmetrical properties.	Computer Program 1. Tenth Planet, Creating Patterns 2. Investigation Shapes Software	KSM SF Chap 1,3,7 Nov (shaper)
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 at home).	Computer Program 3. Tenth Planet, Creating Patterns Investigation Shapes Software	KSM SF Chap 1,3,7 Nov (shaper)

Kindergarten
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 (such as cause & effect, predictions).	COO 3 SF 3 Marilyn Burns Frog Math-Probability	KMS SFA 3
2. Record and discuss results from simple probability activities.	a. Record and discuss results from simple probability activities.	Family Math-Probability	KMS SFA 3
3. Engage in chance activities using number cubes and spinners.	a. Engage in chance activities using number cubes and spinners.	Family Math-Probability	KMS SFA 3
4. Explore ways of recording, organizing, and analyzing data.	a. Construct, read, and interpret simple graphs.	SF Chap 2B, 7B	SF Chap 2B, 7B KMS
5. Construct and interpret real graphs, pictographs, and bar graphs.	a. Construct, read, and interpret simple graphs.	SF Chap 2B, 7B	SF Chap 2B, 7B KMS
6. Make and test predictions.	a. Discuss the likelihood of various events (such as cause & effect, predictions).	SF Chap 2B, 7B	SF Chap 2B, 7B KMS

Kindergarten
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. Sort and classify manipulatives and real-life objects by color, shape, function, and/or size. b. Extend patterns involving attributes of color, shape, or size (AB patterns). c. Use appropriate technology to enhance understanding of patterns.	SF Chap 1, 2A, 3 Pattern Trains & Hopscotch Paths Millies Math House Kid Pix Creating Patterns	SFA Chap 1, 2A, 3 KMS Nov KMS SFA Chap 1, 2A, 3
2. Identify rules and extend patterns based on the rules.	a. Identify rules for patterns involving attributes (AB patterns).	Millies Math House Kid Pix Creating Patterns	Nov KMS SFA Chap 1, 2A,
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, nature, body movement, shape, color, etc.).	Millies Math House Kid Pix Creating Patterns	Nov KMS SFA Chap 1, 2A,

Kindergarten
Content Standard #9: Algebra and Functions

Connecticut Framework	Mansfield Objectives	Lessons/Materials/Activities	Assessments
1. Use the commutative property of addition.	a. Use commutative property of addition when adding concrete sets of objects 1-10.	PTHP 4 CCM 211 "Turn Around Facts"	KMS
2. Use patterning to explore function activities (such as "function machines" or input-output processes).	a. Explore function activities such as missing objects/numbers.	PTHP 4 CCM 211 "Turn Around Facts"	
3. Explore and use the concept of ordinal numbers.	a. Explore and use the concept of ordinal numbers first through tenth.	SF Chap 5	SFA Chap 5 KMS
4. Model real-world problems using number sentences to describe the situations.	a. Model real-world problems using number sentences to describe the situations.	SF Chap 12 How Many in All - all	SF Chap 12 KMS

Kindergarten
Content Standard #10: Discrete Math

Connecticut Framework	Mansfield Objectives	Lessons/Materials/Activities	Assessment
1. Represent and classify data based on attributes.	a. Use comparative vocabulary to explain relationships of objects.	SF 10B CCM-all	SFA 10B
2. Engage in systematic listing, counting, and reasoning.	a. Explore ways of recording mathematical information such as listing and counting.	Math Their Way COO 1 & 3 CCM 1 & 2	
3. Follow and describe simple procedures and directions.	a. Apply mathematical concepts when playing games (counting, following directions, moving playing pieces with one to one correspondence).	Snail's Race Candyland Chutes & Ladders	Ongoing observation
4. Explore a variety of puzzles, games, and counting problems.	a. Apply mathematical concepts when playing games (counting, following directions, moving playing pieces with one to one correspondence).	Snail's Race Candyland Chutes & Ladders	

Kindergarten

Kindergarten Key

CCM	Collecting Counting Measuring
MT	Mathematical Thinking
COO	Counting Ourselves and Others
HMA	How Many in All
MSBB	Making Shapes and Building Blocks
PTHP	Pattern Trains and Hopscotch Paths
KMS	Kindergarten Math Survey
Nov.	November Assessment
SFA	Scott Foresman Assessments