

Bridges Grade 1 Correlations to NCTM Curriculum Focal Points

NUMBER AND OPERATIONS AND ALGEBRA

Developing understandings of addition and subtraction and strategies for basic addition facts and related subtraction facts

Children develop strategies for adding and subtracting whole numbers on the basis of their earlier work with small numbers. They use a variety of models, including discrete objects, length-based models (e.g., lengths of connecting cubes), and number lines, to model “part-whole,” “adding to,” “taking away from,” and “comparing” situations to develop an understanding of the meanings of addition and subtraction and strategies to solve such arithmetic problems. Children understand the connections between counting and the operations of addition and subtraction (e.g., adding two is the same as “counting on” two). They use properties of addition (commutativity and associativity) to add whole numbers, and they create and use increasingly sophisticated strategies based on these properties (e.g., “making tens”) to solve addition and subtraction problems involving basic facts. By comparing a variety of solution strategies, children relate addition and subtraction as inverse operations.

Focal Points	Bridges	Number Corner	Bridges Supplement	Assessments
Model “part-whole,” “adding to,” “taking away from,” and “comparing” situations to develop an understanding of the meanings of addition and subtraction.	Unit 1, Sessions 6, 7, 9 Unit 2, Sessions 2, 3, 5, 8, 15, 23, 24, 25 Unit 3, Sessions 1, 2, 5, 11, 12, 15, 16 Unit 4, pages 543-546, 559-560, 573-575 (Penguin Picture Problems)	September Wednesday Challenges 1-4 February Thursday Challenges 3-4 March Wednesday Challenges 1-3	Set A3 Number & Operations: Addition and Subtraction on the Number Line, Activities 1, 2, and 3 Set A4 Number & Operations: Equivalent Names, Activities 1 & 2	
Develop and use efficient strategies for adding and subtracting whole numbers using a variety of models, including discrete objects, length-based models (e.g., lengths of connecting cubes) and number lines.	Unit 1, Sessions 6–9 Unit 2, Sessions 2–5, 8, 15, 19-21 Unit 2, pages 240–241 (Work Place 2I) Unit 3, Sessions 1–2, 4-5, 7, 11-12, 15-16 Unit 4, pages 481–483 (Spin to Win Bingo) Unit 4, pages 491–492 (Another Look at Spin to Win Bingo) Unit 4, pages 499–500 (Old Orca Subtraction)	September Wednesday Challenges 1–4 October Wednesday Challenges 1-3 January Thursday Challenges 1–4 January, pages 253–254 (St. Support 6D) February Thursday Challenges 1-4 February, pages 302–303 (St. Support 7C) March Wednesday Challenges 1-3 April Wednesday Challenges 1-4	Set A3 Number & Operations: Addition and Subtraction on the Number Line, Activities 1, 2, and 3 Set A4 Number & Operations: Equivalent Names, Activities 1 & 2 Bridges Practice Book, pages 7, 14, 17, 21, 31, 36, 37, 41, 42, 48, 50, 56	Informal Bridges Practice Book, pages 7, 12, 14, 17, 18, 21, 22, 24, 31, 32, 34, 35, 37, 38, 41, 53, 54, 56, 63
				Formal October Number Corner, pages 119–120 (Assessment 3) February Number Corner, pages 297–298 (Assessment 7) Unit 2, pages 265–269 (Interviews 1 & 2)
Use the concept of commutative [$4 + 2 = 2 + 4$], associative [$(4 + 3) + 7 = 4 + (3 + 7)$], and identity [$0 + 3 = 3$] properties of addition to solve problems involving basic facts.	Unit 3, Sessions 5, 14 Unit 3, pages 319-32 (Work Place 3C) Unit 3, pages 360-369 (Work Place 3G)	September Wednesday Challenges 3 & 4 September–May Friday Challenges February, pages 302–303 (St. Support 7C) March Monday Challenges 1–3	Set A3 Number & Operations: Addition and Subtraction on the Number Line, Activities 2 and 3 Set A4 Number & Operations: Equivalent Names, Activities 1 & 2 Bridges Practice Book, pages 9, 51	Informal Bridges Practice Book, pages 9, 51
				Formal February Number Corner, pages 294–295 (Friday’s Figuring Assessment) April Number Corner, page 386 (Friday’s Figuring Assessment) May Number Corner, pages 424–426 (Friday’s Figuring Assessment)

Bridges Grade 1 Correlations to NCTM Curriculum Focal Points (cont.)

NUMBER AND OPERATIONS AND ALGEBRA

Developing understandings of addition and subtraction and strategies for basic addition facts and related subtraction facts

Children develop strategies for adding and subtracting whole numbers of the basis of their earlier work with small numbers. They use a variety of models, including discrete objects, length-based models (e.g., lengths of connecting cubes), and number lines, to model “part-whole,” “adding to,” “taking away from,” and “comparing” situations to develop an understanding of the meanings of addition and subtraction and strategies to solve such arithmetic problems. Children understand the connections between counting and the operations of addition and subtraction (e.g., adding two is the same as “counting on” two). They use properties of addition (commutativity and associativity) to add whole numbers, and they create and use increasingly sophisticated strategies based on these properties (e.g., “making tens”) to solve addition and subtraction problems involving basic facts. By comparing a variety of solution strategies, children relate addition and subtraction as inverse operations.

Focal Points	Bridges	Number Corner	Bridges Supplement	Assessments
Relate addition and subtraction as inverse operations.		January Thursday Challenge 4 January, pages 253–254 (St. Support 6D) February Thursday Challenges 1–4 February, pages 302–303 (St. Support 7C) March Wednesday Challenge 3 April Wednesday Challenge 4	Set A3 Number & Operations: Addition and Subtraction on the Number Line, Activities 1 and 3 Bridges Practice Book, pages 12, 53, 54	Informal Bridges Practice Book, pages 12, 53, 54
				Formal February Number Corner, pages 297–298 (Assessment 7)

Bridges Grade 1 Correlations to NCTM Curriculum Focal Points (cont.)

NUMBER AND OPERATIONS				
Developing an understanding of whole number relationships, including grouping in tens and ones				
Children compare and order whole numbers (at least to 100) to develop an understanding of and solve problems involving the relative sizes of these numbers. They think of whole numbers between 10 and 100 in terms of groups of tens and ones (especially recognizing the numbers 11 to 19 as 1 group of ten and particular numbers of ones). They understand the sequential order of the counting numbers and their relative magnitudes and represent numbers on a number line.				
Focal Points	Bridges	Number Corner	Bridges Supplement	Assessments
Compare and order whole numbers to 100.	Unit 1, Sessions 14, 18 Unit 2, Session 1 Unit 3, Sessions 7–9 Unit 4, pages 510–511 (Measuring the Height of the Emperor Penguins) Unit 4, pages 535–538 (Penguin Pairs) Unit 5, pages 549–551 (Measuring Up)	November Monday Challenges 1-4 December Monday Challenge 3 December Wednesday Challenges 1–3 January Monday Challenges 1–3 February Monday Challenge 2 February Friday Challenges 1–4 March Thursday Challenge 4 May Monday Challenges 1–2 May Thursday Challenges 1–2	Set A1 Number & Operations: Numbers to 120, Activities 2 and 4 Set A5 Number & Operations: Place Value, Activities 1, 2 & 3 Bridges Practice Book, pages 1, 2, 3, 11, 13, 19, 23, 24, 30, 33, 36, 39, 42, 43, 46	Informal Bridges Practice Book, pages 1, 2, 3, 11, 13, 19, 23, 24, 30, 33, 36, 39, 42, 43, 46
Represent whole numbers on a number line, demonstrating an understanding of the sequential order of the counting numbers and their relative magnitudes.			Set A1 Number & Operations: Numbers to 120, Activities 1 and 2 Set A3 Number & Operations: Addition and Subtraction on the Number Line, Activities 1, 2, and 3 Bridges Practice Book, pages 11, 30, 46, 48	Informal Bridges Practice Book, pages 11, 30, 46, 48
Count and group objects in tens and ones.	Unit 1, Sessions 2, 13 Unit 2, Sessions 1, 10-11, 19-22 Unit 3, Sessions 1–2, 11–12 Unit 4, pages 472-473 (Help, A Skual) Unit 6, pages 769-770, 779-782, 792-794, 814-816, 822-824, 832-834, 848-850, 856-859 (Farm Purchases) Unit 6, pages 868-871, 878-879 (Hens & Horses Hundreds Grids)	October Thursday Challenge 4 November Wednesday Challenges 1–3 December Monday Challenge 3 December Wednesday Challenge 3 December Thursday Challenges 1–3 January Monday Challenges 1–3 January, pages 300-301 (St. Support 7B)	Set A1 Number & Operations: Numbers to 120, Activity 3 Set A5 Number & Operations: Place Value, Activities 1, 2 & 3 Bridges Practice Book, pages 19, 25, 26, 30	Informal Bridges Practice Book, pages 19, 25, 26, 30 Formal Unit 3, pages 396-398 (Interview 2)
Identify the number of tens and ones in whole numbers between 10 and 100, especially recognizing the numbers 10 to 19 as 1 group of ten and a particular number of ones.	Unit 2, Sessions 19-22 Unit 4, pages 472-473 (Help, A Skual) Unit 6, pages 868-871, 878-879 (Hens & Horses Hundreds Grids)	September-May Friday's Figuring September Wednesday Challenges 1-4 October Thursday Challenge 1 November Wednesday Challenges 1–3 November, page 168 (St. Support 4C) December Wednesday Challenges 1-3	Set A1 Number & Operations: Numbers to 120, Activity 3 Set A5 Number & Operations: Place Value, Activities 1, 2 & 3 Bridges Practice Book, pages 21, 24, 30	Formal Unit 3, pages 395-396 (Interview 1) Number Corner, pages 75, 163-164, 205-206, 297-298 (Assessments 2, 4, 5, 7)

Bridges Grade 1 Correlations to NCTM Curriculum Focal Points (cont.)

GEOMETRY				
Composing and decomposing geometric shapes				
Children compose and decompose plane and solid figures (e.g., by putting two congruent isosceles triangles together to make a rhombus), thus building an understanding of part-whole relationships as well as the properties of the original and composite shapes. As they combine figures, they recognize them from different perspectives and orientations, describe their geometric attributes and properties, and determine how they are alike and different, in the process developing a background for measurement and initial understandings of such properties as congruence and symmetry.				
Focal Points	Bridges	Number Corner	Bridges Supplement	Assessments
Describe geometric attributes of shapes (e.g., round, corners, sides) to determine how they are alike and different.	Unit 1, Session 1 (Work Places 1B & 1C) Unit 1, Session 4 (Work Place 1F) Unit 5, Sessions 1–2, 4–5, 6–7, 10, 13, 16–17, 19 Unit 5, page 654 (Home Connection 12)		Set C1 Geometry: 3-D Shapes, Activities 1, 2 & 3 Bridges Practice Book, pages 55, 58, 59, 60	Informal Unit 5, page 712 (Instructional Considerations for Shape Sorting & Graphing) Bridges Practice Book, pages 55, 58, 59, 60 Formal Unit 5, pp. 734–736 (Interview 2)
Recognize and create shapes that are congruent or have symmetry.	Unit 5, Sessions 4, 5, 11, 12, 14 Unit 6, pages 839–841 (Making a Farm Quilt)			
Compose and decompose shapes (e.g., cut a square into two right triangles and put two cubes together to make a rectangular prism), thus building an understanding of part-whole relationships as well as the properties of the original and composite shapes.	Unit 1, pages 21–23 (Work Places 1B & 1C) Unit 2, Session 12 Unit 2, pages 170–174 (Day 2 and Work Place 2E) Unit 5, Sessions 3–5, 10–12, 14 Unit 5, pages 591–594, Pattern Blocks & Mini-Quilts Computer Work Places 1–4	January Wednesday Challenge 4 January, pages 251–252 (St. Support 6B) March Wednesday Challenge 4 April Thursday Challenges 3–4 April, page 390 (St. Support 9C)		Formal January Number Corner, pages 249–250 (Assessment 6) April Number Corner, pages 387–388 (Assessment 9) Unit 5, pp. 731–734 (Interview 1)
Recognize shapes when viewed from different perspectives and orientations.	Unit 1, Session 1 (Work Places 1B & 1C) Unit 1, Session 4 (Work Place 1F) Unit 5, Sessions 1, 2, 4, 5, 6, 8, 13, 16, 17, 20 Unit 5, Home Connection 12, page 654		Set C1 Geometry: 3-D Shapes, Activities 1, 2 & 3 Bridges Practice Book, pages 59, 60	Informal Bridges Practice Book, pages 59, 60 Formal Unit 5, pp. 734–736 (Interview 2)

Bridges Grade 1 Correlations to Focal Points Connections

NUMBER AND OPERATIONS AND ALGEBRA				
Children use mathematical reasoning, including ideas such as commutativity and associativity and beginning ideas of tens and ones, to solve two-digit addition and subtraction problems with strategies that they understand and can explain. They solve both routine and non-routine problems.				
Connections	Bridges	Number Corner	Bridges Supplement	Assessments
Use mathematical reasoning, including ideas such as commutativity and associativity and beginning ideas of tens and ones to solve 2-digit addition problems	Unit 4, pages 433–444 (A Travel Game) Unit 6, pages 832–834 (Buying a Cow or Two) Unit 6, pages 848–850 (Buying a Pig or Two) Unit 6, pages 856–859 (Buying Chickens) Unit 6, pages 814–816 and 822–824 (Paying for Today’s Purchases)	December Wednesday Challenges 1–3 February Wednesday Challenges 1–4 February, pages 300–301 (St. Support 7B) March Thursday Challenges 1–3 April Thursday Challenge 1		Formal December Number Corner, pages 205–206 (Assessment 5) February Number Corner, pages 297–298 (Assessment 7)
Use mathematical reasoning, including ideas such as commutativity and associativity and beginning ideas of tens and ones to solve 2-digit subtraction problems		December Wednesday Challenges 1–3 February Wednesday Challenges 1–4 March Thursday Challenges 1–3 April Thursday Challenge 1 May Thursday Challenges 3–4		

Bridges Grade 1 Correlations to Focal Points Connections (cont.)

MEASUREMENT AND DATA ANALYSIS				
Children strengthen their sense of number by solving problems involving measurements and data. Measuring by laying multiple copies of a unit end to end and then counting the units by using groups of tens and ones supports children's understand of number lines and number relationships. Representing measurements and discrete data in picture and bar graphs involves counting and comparisons that provide another meaningful connection to number relationships.				
Connections	Bridges	Number Corner	Bridges Supplement	Assessments
Measure by laying multiple copies of a unit end to end and then counting the units by using groups of tens and ones			Set A5 Number & Operations: Place Value, Activity 3 Set D2 Measurement: Length in Non-Standard Units, Activity 2	
Represent measurements and discrete data in picture and bar graphs.	Unit 1, Sessions 5, 10, 11-12, 14, 18, 19-20 Unit 2, Session 1 Unit 2, pages 240–241 (Work Place 2I) Unit 3, Sessions 8–10 Unit 5, Session 17	October, page 97 (Tuesday's Temperature) October, pages 99–100 (Tuesday's Tally) November, page 135 (Tuesday's Temperature) November, page 136 (Continuing with Tally)	Set E1 Data Analysis: Bar Graphs, Activities 1 & 2 Set D1 Measurement: Comparing Length, Activity 2 Set D2 Measurement: Length in Non-Standard Units, Activity 3 Bridges Practice Book, pages 6, 10	Informal Unit 3, page 343 (Instructional Considerations for Sea Creatures Sorting & Graphing) Bridges Practice Book, pages 6, 10
Ask and answer counting and comparison questions about data.	Unit 1, Sessions 5, 10, 11-12, 14, 18, 19-20 Unit 2, Session 1 Unit 3, Session 8, 10 Unit 5, Session 17	September Tuesday Challenge 3 October, page 97 (Tuesday's Temperature) October pages 99–100, (Tuesday's Tally) November, page 136 (Tuesday's Tally)	Set E1 Data Analysis: Bar Graphs, Activities 1 & 2 Set D1 Measurement: Comparing Length, Activity 2 Set D2 Measurement: Length in Non-Standard Units, Activity 3 Bridges Practice Book, pages 27, 29	Informal Unit 3, page 343 (Instructional Considerations for Sea Creatures Sorting & Graphing) Bridges Practice Book, pages 27, 29

Bridges Grade 1 Correlations to Focal Points Connections (cont.)

ALGEBRA				
Through identifying, describing, and applying numbers patterns and properties in developing strategies for basic facts, children learn about other properties of numbers and operations, such as odd and even (e.g., “Even numbers of objects can be paired, with none left over”), and 0 as the identity element for addition.				
Connections	Bridges	Number Corner	Bridges Supplement	Assessments
Identify, create, and apply number patterns and properties in developing strategies for basic facts.	Unit 2, Sessions 10–11, 14, 23–24	October Monday Challenge 1	Set 3 Number & Operations: Addition & Subtraction on the Number Line	Informal Bridges Practice Book, pages 36, 43, 46, 70, 72
	Unit 3, Sessions 20–21	November, page 136 (Tally)	Set 4 Number & Operations: Equivalent Names, Activities 1 & 2	Formal November Number Corner, pages 163–165 (Assessment 4)
	Unit 4, pages 525–528 (Penguin Pairs)	February Tuesday Challenges 1–2	Bridges Practice Book, pages 36, 43, 46, 70, 72	May Number Corner, pages 427–428 (Assessment 10)
	Unit 4, pages 535–538 (Counting by 2’s with Penguin Pairs)	February, pages 298–300 (St. Support 7A)		
	Unit 6, pages 897–901 (Growing Pattern of Farm Animals)	March Tuesday Challenges 1–4		
	Unit 6, pages 902–903 (Farm Animal Story Problems)	March, pages 349–351 (St. Support 8B & 8C)		
	Unit 6, pages 907–912 (Building 4’s with Unifix Cubes)	April Tuesday Challenges 1–2, 4		
		April Thursday Challenge 1		
		May Wednesday Challenges 3–4		
		May, pages 430–431 (St. Support 10C & 10D)		
Classify a number as odd or even and demonstrate that it is odd or even.	Unit 2, Sessions 4–5	September, pages 26–28 (Days This Month Chart)		Informal Unit 2, page 164 (Instructional Considerations for Odd & Even)
	Unit 2, pages 163-164 (Work Place 2D, Odd & Even)	March Tuesday Challenges 3–4		
	Unit 4, pages 535–538 (Counting by 2’s with Penguin Pairs)	April Thursday Challenge 2		
		May Wednesday Challenges 3–4		