

Transition: Early Additive to Advanced Additive

Domain: Multiplication and Division

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Achievement Objectives	Number: Level 3	Algebra: Level 3
	<p><u>Number Strategies AO1:</u> Use a range of additive and simple multiplicative strategies with whole numbers, fractions, decimals, and percentages.</p> <p><u>Number Knowledge AO1</u> Know basic multiplication and division facts.</p> <p><u>Number Knowledge AO3</u> Know how many tenths, tens, hundreds, and thousand, are in whole numbers.</p>	<p><u>Equations and Expressions AO1:</u> Record and interpret additive and simple multiplicative strategies, using words, diagrams, and symbols, with an understanding of equality.</p>

Strategies being developed	Problem progression	References	Knowledge being developed	Resources
Use times five facts to work out times six, seven, and four facts (using the distributive property)	$2 \times 5 = \square$ so $2 \times 6 = \square$, $2 \times 7 = \square$ $4 \times 5 = \square$ so $4 \times 6 = \square$, $4 \times 7 = \square$ $6 \times 5 = \square$ so $6 \times 6 = \square$, $6 \times 7 = \square$ $9 \times 5 = \square$ so $9 \times 6 = \square$, $9 \times 7 = \square$ $20 \times 5 = \square$ so $20 \times 6 = \square$, $20 \times 7 = \square$	<p>Teaching Multiplication and Division (Book 6) Introduction (24-25) Fun With Fives (28-30) A Little Bit More/A Little Bit Less (32-34)</p> <p>Figure It Out N7/8.1 Fives And Tens (4-5)</p>	Recall groupings of twos, threes, fives, and tens that are in numbers to 100 and the resulting remainders	<p>Teaching Number Knowledge (Book 4) Skip-counting On A Number Line (11) Beep (12) Using Calculators (24) Estimation (25) Dividing? Think About Multiplying First (37)</p> <p>Figure It Out N 7/8 L.1 Flying Feet (9) N 7/8 L.1 That's Odd (2) N 7/8 L.1 Fives And Tens (4) N 7/8 L.1 Firewood Fever (16)</p>

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Use times ten facts to work out times nine facts (using the distributive property)	$2 \times 10 = \square$ so $2 \times 9 = \square$ $9 \times 10 = \square$ so $9 \times 9 = \square$ $6 \times 10 = \square$ so $6 \times 9 = \square$ $3 \times 9 = 30 - \square = \square$ $8 \times 9 = 80 - \square = \square$ $5 \times 9 = 50 - \square = \square$ $2 \times 20 = \square$ so $2 \times 19 = \square$ $4 \times 100 = \square$ so $4 \times 99 = \square$	<p>Teaching Multiplication and Division (Book 6) A Little Bit More/A Little Bit Less (32-34)</p> <p>Figure It Out N 7/8 Link 2 Planting With The Whanau (6)</p>	Recall all the multiplication and division facts for 2, 3, 5, 10 x tables	<p>Teaching Number Knowledge (Book 4) Number Mats and Number Fans (34) In and Out (36) Multiplication Madness (36) Loopy (37) Multiplication Flash Cards (38)</p> <p>Figure It Out Bf 2-3 (11) Heading For Home Bf 2-3 (24) Six Shooters Bf 3 (20) Dicey Dabble Bf 3-4 (12) A Matter of Factor Bf 3-4 (15) How Many Factors? Bf 3-4 To and Fro (16) N 7/8 L.1 Sums and Products (12) N 7/8 L.1 Container Contents (13) N 7/8 L.2 Table Tricks (2)</p>
Change the order of the factors to make a multiplication problem easier, e.g. $26 \times 3 = 3 \times 26$		<p>Teaching Multiplication and Division (Book 6) Turn Abouts (34-36)</p> <p>Figure It Out N 2-3 High Flyers (14) BF 2-3 Times Up (8) NS&AT2-3.1 Keeping Score (6-7)</p>	Recall groupings of 10 and 100 that can be made from a four-digit number	<p>Teaching Number Knowledge (Book 4) Tens in Hundreds and More (27)</p> <p>Figure It Out N 7/8 L.1 Fund-raising (6)</p>

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Find out how many ones, tens, hundreds and thousands are in all of a whole number,		Teaching Multiplication and Division (Book 6) Changing Money (25-28)	Recall multiplication facts for squares to 100	
Use two times facts to work out three, four, six, and eight times facts (using doubling and the distributive property)	$2 \times 5 = \square$ so $4 \times 5 = \square$ so $5 \times 4 = \square$ $2 \times 6 = \square$, $3 \times 6 = \square$, $6 \times 6 = \square$, $4 \times 6 = \square$, $8 \times 6 = \square$ $2 \times 8 = \square$, $3 \times 8 = \square$, $6 \times 8 = \square$, $4 \times 8 = \square$, $8 \times 8 = \square$ $2 \times 25 = \square$, $3 \times 25 = \square$, $4 \times 25 = \square$, $8 \times 25 = \square$	Figure It Out BF 3 Factor Puzzles (11) BF 3 Stars And Students (12) BF 3 Digital Delights (13) BF 3 Multiple Mirrors (21) N 7/8 Link Table Tricks (2) N 7/8 Link Fun Factor (5)	Record the results of mental calculation using multiplication and division equations and diagrams	Figure It Out N 7/8 L.2 Divisive Tactics (14)
Multiply by tens, hundreds, thousands, and other multiples of ten	$5 \times 10 = \square$, $5 \times 20 = \square$, $5 \times 40 = \square$ $8 \times 10 = \square$, $8 \times 20 = \square$, $8 \times 30 = \square$ $6 \times 10 = \square$, $6 \times 30 = \square$, $6 \times 60 = \square$ $4 \times 100 = \square$, $4 \times 200 = \square$, $4 \times 400 = \square$ $3 \times 100 = \square$, $3 \times 400 = \square$, $3 \times 900 = \square$	Teaching Multiplication and Division (Book 6) Multiplying Tens (30-32) Figure It Out N 3.1 Standing Room Only (4) N 3.1 Tens Time (8) NS 7/8 Link It Pays to Win! (18)		

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Solve sharing problems by reversing multiplication facts	$4 \times 9 = \square$ so 36 shared among 4?, among 2? $6 \times 10 = \square$ so 60 shared among 10, among 5, among 20 $3 \times 8 = \square$ so 24 shared among 3, among 6 $8 \times 8 = \square$ so 64 shared among 8, among 4, among 16 $9 \times 8 = \square$ so 72 shared among 3, among 18	Teaching Multiplication and Division (Book6) Goesintas (38-40) Figure It Out N 2-3 Wheel and Deal (15) N 2-3 Stepping Out (16)
Solve "How many equal sets of ?" problems by reversing multiplication facts	$5 \times 8 = \square$ so 40 can be made into \square sets of 4, of 2, of 8 $6 \times 7 = \square$ so 42 can be made into \square sets of 6, of 7, of 3, of 14 $9 \times 4 = \square$ so 36 can be made into \square sets of 8, of 3, of 12	Teaching Multiplication and Division (Book6) Long jumps (36-38) Figure It Out BF 2-3 Heading for Home (11) N 7/8 Link Container Contents (13)
Solve problems using a combination of addition, subtraction, multiplication and division mental strategies		Figure It Out BF 2.1 Dazzler Digs On (19) BF 2.1 Pocket Money (15) BF 2-3 Thirty One or None (4) NS&AT 7/8.1 Choice Calculations NS&AT 7/8.1 Splitting Numbers (2) NS&AT 7/8.1 Hit the Target (7) NS&AT 7/8.1 Pathways (8)