

Curriculum Expectations for Multiplication and Division

Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
<p>By the end of Grade 3, students will:</p> <ul style="list-style-type: none"> – multiply to 7×7 and divide to $49 \div 7$, using a variety of mental strategies; – relate multiplication of one-digit numbers and division by one-digit divisors to real-life situations, using a variety of tools and strategies. 	<p>By the end of Grade 4, students will:</p> <ul style="list-style-type: none"> – multiply to 9×9 and divide to $81 \div 9$, using a variety of mental strategies; – multiply two-digit whole numbers by one-digit whole numbers, using a variety of tools, student-generated algorithms, and standard algorithms; – multiply whole numbers by 10, 100 and 1000, and divide whole numbers by 10 and 100 using mental strategies; – solve problems involving the multiplication of one-digit whole numbers, using a variety of mental strategies; – divide two-digit whole numbers by one-digit whole numbers, using a variety of tools, and student-generated algorithms; – use estimation when solving problems involving the addition, subtraction, and multiplication of whole numbers, to help judge the reasonableness of a solution; 	<p>By the end of Grade 5, students will:</p> <ul style="list-style-type: none"> – multiply two-digit whole numbers by two-digit whole numbers, using estimation, student-generated algorithms, and standard algorithms; – multiply decimal numbers by 10, 100, 1000, and 10 000, and divide decimal numbers by 10 and 100 using mental strategies; – solve problems involving the addition, subtraction, and multiplication of whole numbers, using a variety of mental strategies; – divide three-digit whole numbers by one-digit whole numbers, using concrete materials, estimation, student-generated algorithms, and standard algorithms; – use estimation when solving problems involving the addition, subtraction, multiplication, and division of whole numbers, to help judge the reasonableness of a solution; 	<p>By the end of Grade 6, students will:</p> <ul style="list-style-type: none"> – multiply and divide decimal numbers to tenths by whole numbers, using concrete materials, estimation, algorithms, and calculators; – multiply and divide decimal numbers by 10, 100, 1000, and 10 000, and divide decimal numbers by 10 and 100 using mental strategies; – multiply whole numbers by 0.1, 0.01 and 0.001 using mental strategies; – use a variety of mental strategies to solve addition, subtraction, multiplication and division problems involving whole numbers; – solve problems involving multiplication and division of whole numbers (four-digit by two-digit), using a variety of tools and strategies; – explain the need for a standard order for performing operations, by investigating the impact that changing the order has when performing a series of operations; 	<p>By the end of Grade 7, students will:</p> <ul style="list-style-type: none"> – divide whole numbers by simple fractions and by decimal numbers to hundredths, using concrete materials; – solve multi-step problems arising from real-life contexts and involving whole numbers and decimals, using a variety of tools and strategies; – use estimation when solving problems involving operations with whole numbers, decimals, and percents, to help judge the reasonableness of a solution; – evaluate expressions that involve whole numbers and decimals, including expressions that contain brackets, using order of operations;
	<ul style="list-style-type: none"> – describe relationships that involve simple whole-number multiplication; 	<ul style="list-style-type: none"> – describe multiplicative relationships between quantities by using simple fractions and 	<ul style="list-style-type: none"> – represent ratios found in real-life contexts, using concrete materials, drawings, and 	<ul style="list-style-type: none"> – determine, through investigation, the relationships among fractions, decimals, percents, and ratios.

	<ul style="list-style-type: none"> - demonstrate an understanding of simple multiplicative relationships involving unit rates through investigation using concrete materials and drawings. 	<p>decimals;</p> <ul style="list-style-type: none"> - demonstrate an understanding of simple multiplicative relationships involving whole number rates through investigation using concrete materials and drawings. 	<p>standard fractional notation;</p> <ul style="list-style-type: none"> - represent relationships using unit rates. 	
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