
# Mohawk Local Schools Grade 4 Math

# Quarter 1 Curriculum Guide

Mathematical Practices

1. Make Sense of Problems and Persevere in Solving them
2. Reasoning Abstractly & Quantitatively
3. Construct Viable Arguments and Critique the Reasoning of Others
4. Model with Mathematics
5. Use Appropriate Tools Strategically
6. Attend to Precision
7. Look for and Make use of Structure
8. Look for and Express Regularity in Repeated Reasoning

Critical Areas of Focus Being Addressed:

- Multiplication and Division
- Fractions
- Geometry

| Content Statements Addressed and Whether they are Knowledge, Reasoning, Performance Skill, or Product: (DOK1) (DOK2) (DOK3) (DOK4) | Underpinning Targets Corresponding with Standards and Whether they are Knowledge, Reasoning, Performance Skill, or Product: "I can…..", "Students Will Be Able To……." |
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| 4.OA.1 Interpret a multiplication equation as a comparison, e.g., interpret 35=5x7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations. (DOK2) | -Know multiplication strategies<br>-Interpret a multiplication equation as a comparison (e.g. 18 = 3 times as many as 6.<br>-Represent verbal statements of multiplicative comparisons as multiplication equations |
| 4.OA.5 Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. (DOK2) | -Identify a number or shape pattern<br>-Generate a number or shape pattern that follows a given rule. -Analyze a pattern to determine features not apparent in the rule (always odd or even, alternates between odd and even, etc.) |
| 4.OA.4 Find all factor pairs for a whole number in the range 1-100. Recognize that a whole number is a multiple of each of its | -Define prime and composite numbers.<br>-Know strategies to determine whether a whole number is prime or composite. |

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| factors. Determine whether a given whole number in the range 1-100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1-100 is prime or composite. (DOK2) | -Identify all factor pairs for any given number 1-100. -Recognize that a whole number is a multiple of each of its factors.<br>-Determine if a given whole number (1-100) is a multiple of a given one-digit number. |
| 4.OA.3 Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. (DOK2) | -Divide whole numbers including division with remainders.<br>-Represent multi-step word problems using equations with a letter standing for the unknown quantity.<br>-Interpret multistep word problems (including problems in which remainders must be interpreted) and determine the appropriate operation(s) to solve.<br>-Assess the reasonableness of an answer in solving a multistep word problem using mental math and estimation strategies (including rounding) |
| 4.OA.2 Multiply or divide to solve word problems involving multiplicative comparison e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison. (DOK2) | -Multiply or divide to solve word problems.<br>-Describe multiplicative comparison.<br>-Describe additive comparison.<br>-Determine appropriate operation and solve word problems involving multiplicative comparison.<br>-Determine and use a variety of representations to model a problem involving multiplicative comparison.<br>-Distinguish between multiplicative comparison and additive comparison (repeated addition). |
| 4.NBT.2 Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using <, =, and < symbols to record the results of comparisons. (DOK2) | -Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form.<br>-Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons. |
| 4NBT.1 Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. (DOK2) | -Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. |
| 4NBT.3 Use place value understanding to round multi-digit whole numbers to any place. (DOK2) | -Round multi-digit whole numbers to any place using place value |
| 4NBT.4 Fluently add and subtract multi-digit | -Fluently add and subtract multi-digit whole |

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| whole numbers using the standard algorithm. (DOK1) | numbers less than or equal to 1,000,000 using the standard algorithm. |
| 4.NBT.5 Multiply a whole number of us to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations rectangular arrays, and/or area models. (DOK2) | -Multiply a whole number of up to four digits by a one-digit whole number.<br>-Multiply two two-digit numbers.<br>-Use strategies based on place value and the properties of operations to multiply whole numbers.<br>-Illustrate and explain calculations by using written equations, rectangular arrays, and/or area models. |