Curriculum Correlation
Patterning and Algebra Cluster 3:
Equality and Inequality

ON

Kindergarten
15.2 investigate some concepts of quantity and equality through identifying and comparing sets with more, fewer, or the same number of objects (e.g., find out which of two cups contains more or fewer beans [i.e., the concept of one-to-one correspondence]; investigate the ideas of more, less, or the same, using concrete materials such as counters or five and ten frames; recognize that the last number counted represents the number of objects in the set [i.e., the concept of cardinality])

Grade 1
Patterning and Algebra Expressions and Equality – create a set in which the number of objects is greater than, less than, or equal to the number of objects in a given set (Activity 10) – demonstrate examples of equality, through investigation, using a "balance" model (Sample problem: Demonstrate, using a pan balance, that a train of 7 attached cubes on one side balances a train of 3 cubes and a train of 4 cubes on the other side.) (Activities 12 and 13) – determine, through investigation using a "balance" model and whole numbers to 10, the number of identical objects that must be added or subtracted to establish equality (Sample problem: On a pan balance, 5 cubes are placed on the left side and 8 cubes are placed on the right side. How many cubes should you take off the right side so that both sides balance?) (Activity 11) Cross Strand: Number Quantity Relationships – represent, compare, and order whole numbers to 50, using a variety of tools (e.g., connecting cubes, ten frames, base ten materials, number lines, hundreds charts) and contexts (e.g., real-life experiences, number stories)

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ON (con't)

Grade 2
Patterning and Algebra
Expressions and Equality
– demonstrate an understanding of the concept of equality by partitioning whole numbers to 18 in a variety of ways, using concrete materials (e.g., starting with 9 tiles and adding 6 more tiles gives the same result as starting with 10 tiles and adding 5 more tiles)
– represent, through investigation with concrete materials and pictures, two number expressions that are equal, using the equal sign (e.g., "I can break a train of 10 cubes into 4 cubes and 6 cubes. I can also break 10 cubes into 7 cubes and 3 cubes. This means 4 + 6 = 7 + 3.")
– determine the missing number in equations involving addition and subtraction to 18, using a variety of tools and strategies (e.g., modelling with concrete materials, using guess and check with and without the aid of a calculator) (Sample problem: Use counters to determine the missing number in the equation 6 + 7 = + 5.)
– identify, through investigation, and use the commutative property of addition (e.g., create a train of 10 cubes by joining 4 red cubes to 6 blue cubes, or by joining 6 blue cubes to 4 red cubes) to facilitate computation with whole numbers (e.g., "I know that 9 + 8 + 1 = 9 + 1 + 8. Adding becomes easier because that gives 10 + 8 = 18.")
– identify, through investigation, the properties of zero in addition and subtraction (i.e., when you add zero to a number, the number does not change; when you subtract zero from a number, the number does not change)

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BC/YT

Kindergarten
Change in quantity to 10 using concrete materials • generalizing change by adding 1 or 2 • modeling and describing number relationships through change (e.g., build and change tasks - begin with four cubes, what do you need to do to change it to six? to change it to 3?) • Equality as a balance and inequality as an imbalance • modeling equality as balanced and inequality as imbalanced using concrete and visual models (e.g., using a pan balance with cubes on each side to show equal and not equal)

Grade 1
Change in quantity to 20, concretely and verbally • verbally describing a change in quantity (e.g., I can build 7 and make it 10 by adding 3) (Activity 11) Meaning of equality and inequality • demonstrating and explaining the meaning of equality and inequality (Activities 10, 11, 12, 13) • recording equations symbolically using = and ≠ (Activities 12 and 13) Cross Strand: Ways to make 10 ‑ decomposing 10 into parts Addition and subtraction to 20 (understanding ‑ decomposing 20 into parts ‑ addition and subtraction are related

Grade 2
Change in quantity using pictorial and symbolic representation • numerically describing a change in quantity (e.g., for 6 + n = 10, visualize the change in quantity by using ten-frames, hundred charts, etc.) Symbolic representation of equality and inequality

Mathology 1
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Curriculum Correlation
Patterning and Algebra Cluster 3:
Equality and Inequality

SK

Kindergarten

Grade 1
Patterns and Relations (Variables and Equations) P1.3 Describe equality as a balance and inequality as an imbalance, concretely, physically, and pictorially (0 to 20). (Activities 10, 11, 12, 13) P1.4 Record equalities using the equal symbol. (Activities 12, 13) Cross Strand: Number N1.3 Demonstrate an understanding of counting by: • indicating that the last number said identifies "how many" • showing that any set has only one count using the counting on strategy • using parts or equal groups to count sets. N1.5 Compare sets containing up to 20 elements to solve problems using: • referents (known quantity) • one-to-one correspondence.

Grade 2
Patterns and Relations (Variables and Equations) P2.3 Demonstrate understanding of equality and inequality concretely and pictorially (0 to 100) by: • relating equality and inequality to balance • comparing sets • recording equalities with an equal sign • recording inequalities with a not equal sign • solving problems involving equality and inequality.

Curriculum Correlation
Patterning and Algebra Cluster 3:
Equality and Inequality

NS

Kindergarten

Grade 1
Patterns and Relations PR03: Students will be expected to describe equality as a balance and inequality as an imbalance, concretely and pictorially (0 to 20). (Activities 10, 11, 12, 13) PR04: Students will be expected to record equalities using the equal symbol. (Activities 12, 13) Cross Strand: Number N03. Demonstrate an understanding of counting by: • indicating that the last number said identifies "how many" • showing that any set has only one count • using the counting on strategy • using parts or equal groups to count sets. N05. Compare sets containing up to 20 elements, using: • referents • one-to-one correspondence to solve problems.

Grade 2
Patterns and Relations PR03: Students will be expected to demonstrate and explain the meaning of equality and inequality by using manipulatives and diagrams (0 to 100). PR04: Students will be expected to record equalities and inequalities symbolically, using the equal symbol or not equal symbol.

Curriculum Correlation
Patterning and Algebra Cluster 3:
Equality and Inequality

NB/PEI/NFL

Kindergarten

Grade 1
Patterns and Relations (Variables and Equations) 1PR3. Describe equality as a balance and inequality as an imbalance, concretely and pictorially   (0 to 20). (Activities 10, 11, 12, 13) 1PR4. Record equalities using the equal symbol (0 to 20). (Activities 12, 13) Cross Strand: Number N3: Demonstrate an understanding of counting by: • indicating that the last number said identifies "how many" • showing that any set has only one count • using the counting on strategy • using parts or equal groups to count sets. N5: Compare sets containing up to 20 elements to solve problems using: • referents • one-to-one correspondence.

Grade 2
Patterns and Relations (Variables and Equations) 2PR3. Demonstrate and explain the meaning of equality and inequality, concretely and pictorially   (0 – 100). 2PR4. Record equalities and inequalities symbolically, using the equal symbol or the not equal symbol.

Curriculum Correlation
Patterning and Algebra Cluster 3:
Equality and Inequality

MB

Kindergarten

Grade 1
Patterns and Relations (Variables and Equations) 1.PR3. Describe equality as a balance and inequality as an imbalance, concretely and pictorially (0 to 20). (Activities 10, 11, 12, 13) 1.PR4. Record equalities using the equal symbol (0 to 20). (Activities 12, 13) Cross Strand: - Number 1.N3: Demonstrate an understanding of counting by: • using the counting-on strategy • using parts or equal groups to count sets. 1.N5: Compare and order sets containing up to 20 elements to solve problems by using • referents • one-to-one correspondence.

Grade 2
Patterns and Relations (Variables and Equations) 2.PR3. Demonstrate and explain the meaning of equality and inequality by using manipulatives and diagrams (0 – 100). 2.PR4. Record equalities and inequalities symbolically, using the equal symbol or the not equal symbol.

Curriculum Correlation
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AB/NWT/NU

Kindergarten

Grade 1

Patterns and Relations (Variables and Equations)
4. Describe equality as a balance and inequality as an imbalance, concretely and pictorially (0 to 20). (Activities 10, 11, 12, 13)
 	
5. Record equalities, using the equal symbol. (Activities 12, 13)
 	
Cross Strand:
Number
3. Demonstrate an understanding of counting by:
  • indicating that the last number said identifies "how many"
  • showing that any set has only one count
  • using counting-on
  • using parts or equal groups to count sets.
 	
5. Compare sets containing up to 20 elements, using:
  • referents
  • one-to-one correspondence
  to solve problems.

Grade 2
Patterns and Relations (Variables and Equations) 4. Demonstrate and explain the meaning of equality and inequality, concretely and pictorially. 5. Record equalities and inequalities symbolically, using the equal symbol or the not equal symbol.