

Correlation of Mathematics Readers Grade 3 to the Alberta Mathematics Program of Studies

Number: Develop number sense.

OUTCOME

3.1.8.

Apply estimation strategies to predict sums and differences of two 2-digit numerals in a problem-solving context. [C, ME, PS, R]

Correlated Lessons:

Collecting Data Reader; Reading the Newspaper Reader Objective 21: Uses specific strategies (e.g., front-end estimation, rounding) to estimate computations and to check the reasonableness of computational results

Collecting Data; Reading the Newspaper Page 33 Objective 01: Students will use specific strategies to estimate computations and to check the reasonableness of computational results.

OUTCOME

3.1.9.

Demonstrate an understanding of addition and subtraction of numbers with answers to 1000 (limited to 1-, 2- and 3-digit numerals), concretely, pictorially and symbolically, by: using personal strategies for adding and subtracting with and without the support of manipulatives; creating and solving problems in context that involve addition and subtraction of numbers. [C, CN, ME, PS, R, V]

Correlated Lessons:

The World of Trade Reader; Tracking Time Reader; Timing Races Reader Objective 29: Uses or performs basic mental computations (e.g., addition, subtraction and multiplication of whole numbers/integers)

OUTCOME

3.1.11.

Demonstrate an understanding of multiplication to 5×5 by: representing and explaining multiplication using equal grouping and arrays; creating and solving problems in context that involve multiplication; modelling multiplication using concrete and visual representations, and recording the process symbolically; relating multiplication to repeated addition; relating multiplication to division. [C, CN, PS, R]

Correlated Lessons:

At the Fire Station Reader Objective 42: Multiplies and divides whole numbers

My Lemonade Stand Reader Objective 26: Multiplies whole numbers (integers)

OUTCOME

3.1.12.

Demonstrate an understanding of division (limited to division related to multiplication facts up to 5×5) by: representing and explaining division using equal sharing and equal grouping; creating and solving problems in context that involve equal sharing and equal grouping; modelling equal sharing and equal grouping using concrete and visual representations, and recording the process symbolically; relating division to repeated subtraction; relating division to multiplication. [C, CN, PS, R]

Correlated Lessons:

At the Fire Station Reader Objective 42: Multiplies and divides whole numbers

Collecting Data Reader; Reading the Newspaper Reader Objective 21: Uses specific strategies (e.g., front-end estimation, rounding) to estimate computations and to check the reasonableness of computational results

Collecting Data; Reading the Newspaper Page 33 Objective 01: Students will use specific strategies to estimate computations and to check the reasonableness of computational results.

What Are Budgets? Reader; Our Vacation Budget Reader Objective 51: Understands the concept of a unit and its subdivision into equal parts (part-whole relationship) (e.g., understands that a dollar equals 100 pennies)

OUTCOME

3.1.13.

Demonstrate an understanding of fractions by: explaining that a fraction represents a part of a whole; describing situations in which fractions are used; comparing fractions of the same whole that have like denominators. [C, CN, ME, R, V]

Correlated Lessons:

What Are Budgets? Reader; Our Vacation Budget Reader Objective 51: Understands the concept of a unit and its subdivision into equal parts (part-whole relationship) (e.g., understands that a dollar equals 100 pennies)

Patterns and Relations (Patterns): Use patterns to describe the world and to solve problems.

OUTCOME

3.2.1.

Demonstrate an understanding of increasing patterns by: describing; extending; comparing; creating numerical (numbers to 1000) and non-numerical patterns using manipulatives, diagrams, sounds and actions. [C, CN, PS, R, V]

Correlated Lessons:

My Lemonade Stand Reader; The World of Trade Reader Objective 28: Recognizes a variety of number patterns (e.g., basic linear patterns such as [2,4,6,8&]; simple, repeating, growing patterns) and the rules that explain them

The World of Trade; My Lemonade Stand Page 81 Objective 06: Students will recognize, create, extend, and continue numerical patterns.

OUTCOME

3.2.2.

Demonstrate an understanding of decreasing patterns by: describing; extending; comparing; creating numerical (numbers to 1000) and non-numerical patterns using manipulatives, diagrams, sounds and actions. [C, CN, PS, R, V]

Correlated Lessons:

My Lemonade Stand Reader; The World of Trade Reader Objective 28: Recognizes a variety of number patterns (e.g., basic linear patterns such as [2,4,6,8&]; simple, repeating, growing patterns) and the rules that explain them

The World of Trade; My Lemonade Stand Page 81 Objective 06: Students will recognize, create, extend, and continue numerical patterns.

Shape and Space (Measurement): Use direct and indirect measurement to solve problems.

OUTCOME

3.4.1.

Relate the passage of time to common activities, using nonstandard and standard units (minutes, hours, days, weeks, months, years). [CN, ME, R]

Correlated Lessons:

Tracking Time Reader; Timing Races Reader Objective 38: Solves real-world problems involving number operations-addition, subtraction, multiplication, division (e.g., uses problems involving elapsed time)

Tracking Time; Timing Races Page 177 Objective 12: Students will calculate real-life problems using elapsed time.

OUTCOME

3.4.3.

Demonstrate an understanding of measuring length (cm, m) by: selecting and justifying referents for the units cm and m; modelling and describing the relationship between the units cm and m; estimating length, using referents; measuring and recording length, width and height. [C, CN, ME, PS, R, V]

Correlated Lessons:

Natural Measures Reader Objective 46: Knows approximate size of basic standard units of measurement (e.g., knows which unit to use to measure a particular object)

Natural Measures Reader; At the Fire Station Reader Objective 44: Understands and can apply the basic measures of volume, weight, length, and distance

OUTCOME

3.4.4.

Demonstrate an understanding of measuring mass (g, kg) by: selecting and justifying referents for the units g and kg; modelling and describing the relationship between the units g and kg; estimating mass, using referents; measuring and recording mass. [C, CN, ME, PS, R, V]

Correlated Lessons:

Natural Measures Reader Objective 46: Knows approximate size of basic standard units of measurement (e.g., knows which unit to use to measure a particular object)

Shape and Space (3-D Objects and 2-D Shapes): Describe the characteristics of 3-D objects and 2-D shapes, and analyze the relationships among them.

OUTCOME

3.5.6.

Describe 3-D objects according to the shape of the faces and the number of edges and vertices. [C, CN, PS, R, V]

Correlated Lessons:

Shapes Around You Reader; A Tour of New York City Reader Objective 34: Knows basic geometric language/characteristics for describing, classifying, and naming three-dimensional shapes (e.g., sphere, cone, cube, cylinder)

Shapes Around You Reader; A Tour of New York City Reader Objective 35: Understands basic properties/characteristics of figures/shapes (e.g., three-dimensionality, lines of symmetry, number of sides or corners, dimensions)

Shaping Our World; Shapes in Art; Shapes Around You; A Tour of New York City Page 105, 129 Objective 17: Students will understand and describe properties/characteristics of two-dimensional and three-dimensional figures/shapes.

Statistics and Probability (Data Analysis): Collect, display and analyze data to solve problems.

OUTCOME

3.6.1.

Collect first-hand data and organize it using: tally marks; line plots; charts; lists to answer questions. [C, CN, PS, V] [ICT: C4-1.3]

Correlated Lessons:

Collecting Data Reader; Reading the Newspaper Reader Objective 23: Reads and interprets simple bar graphs and frequency tables (analyze data)

Collecting Data Reader; Reading the Newspaper Reader Objective 24: Understands that data comes in many different forms and that collecting, organizing, and displaying data can be done in several ways

What Are Budgets? Reader; Our Vacation Budget Reader Objective 54: Organizes and displays and analyzes

data in a frequency table

Wildlife Scientists Reader; At Risk! Reader Objective 49: Reads, analyzes and interprets simple bar graphs, pictographs, line graphs, and frequency tables

Wildlife Scientists Reader; At Risk! Reader Objective 50: Understands that data comes in many different forms and that collecting, organizing, and displaying data can be done in several ways (graphs, tables, charts, etc.)

OUTCOME

3.6.2.

Construct, label and interpret bar graphs to solve problems. [C, PS, R, V] [ICT: C4-1.3, C7-1.3, C7-1.4]

Correlated Lessons:

Collecting Data Reader; Reading the Newspaper Reader Objective 23: Reads and interprets simple bar graphs and frequency tables (analyze data)

Wildlife Scientists Reader; At Risk! Reader Objective 48: Organizes and displays and analyzes data in simple bar graphs

Wildlife Scientists Reader; At Risk! Reader Objective 49: Reads, analyzes and interprets simple bar graphs, pictographs, line graphs, and frequency tables

Wildlife Scientists; At Risk! Page 201 Objective 14: Students will organize, create, display, and read data in simple bar graphs, pictographs, circle graphs (pie charts) and charts.