

Grade 4: NB Math Curriculum Outcomes

<p>Number (N)</p> <ol style="list-style-type: none"> 1. Represent and describe whole numbers to 10 000, pictorially and symbolically. 2. Compare and order numbers to 10 000. 3. Demonstrate an understanding of addition of numbers with answers to 10 000 and their corresponding subtractions (limited to 3 and 4-digit numerals). 4. Explain the properties of 0 and 1 for multiplication and the property of 1 for division. 5. Describe and apply mental mathematics strategies, such as: skip counting from a known fact; using doubling or halving; using doubling or halving and adding or subtracting one more group; using patterns in the 9s facts; using repeated doubling to determine basic multiplication facts to 9×9 and related division facts. 6. Demonstrate an understanding of multiplication (2- or 3-digit by 1-digit) to solve problems. 7. Demonstrate an understanding of division (1-digit divisor and up to 2-digit dividend) to solve problems by: using personal strategies for dividing with and without concrete materials; estimating quotients; relating division to multiplication. 8. Demonstrate an understanding of fractions less than or equal to one by using concrete and pictorial representations to: name and record fractions for the parts of a whole or a set; compare and order fractions; model and explain that for different wholes, two identical fractions may not represent the same quantity; provide examples of where fractions are used. 9. Describe and represent decimals (tenths and hundredths) concretely, pictorially and symbolically. 10. Relate decimals to fractions (to hundredths). 11. Demonstrate an understanding of addition and subtraction of decimals (limited to hundredths) by: using compatible numbers; estimating sums and differences; using mental math strategies to solve problems.
<p>Patterns & Relations (PR)</p> <p>(Patterns)</p> <ol style="list-style-type: none"> 1. Identify and describe patterns found in tables and charts, including a multiplication chart. 2. Reproduce a pattern shown in a table or chart using concrete materials. 3. Represent and describe patterns and relationships using charts and tables to solve problems. 4. Identify and explain mathematical relationships using charts and diagrams to solve problems. <p>(Variables and Equations)</p> <ol style="list-style-type: none"> 5. Express a given problem as an equation in which a symbol is used to represent an unknown number. 6. Solve one-step equations involving a symbol to represent an unknown number.
<p>Shape and Space (SS)</p> <p>(Measurement)</p> <ol style="list-style-type: none"> 1. Read and record time using digital and analog clocks, including 24-hour clocks. 2. Read and record calendar dates in a variety of formats. 3. Demonstrate an understanding of area of regular and irregular 2-D shapes by: recognizing that area is measured in square units selecting and justifying referents for the units cm^2 or m^2; estimating area by using referents for cm^2 or m^2; determining and recording area (cm^2 or m^2); constructing different rectangles for a given area (cm^2 or m^2) in order to demonstrate that many different rectangles may have the same area. <p>(3-D Objects and 2-D Shapes)</p> <ol style="list-style-type: none"> 4. Describe and construct rectangular and triangular prisms. <p>(Transformations)</p> <ol style="list-style-type: none"> 5. Demonstrate an understanding of line symmetry by: identifying symmetrical 2-D shapes; creating symmetrical 2-D shapes; drawing one or more lines of symmetry in a 2-D shape. 6. Demonstrate an understanding of congruency, concretely and pictorially
<p>Statistics and Probability (SP)</p> <p>(Data Analysis)</p> <ol style="list-style-type: none"> 1. Demonstrate an understanding of many-to-one correspondence. 2. Construct and interpret pictographs and bar graphs involving many-to-one correspondence to draw conclusions. <p>(Chance and Uncertainty)</p>