Bus Activities:

1) Knowing Facts and Procedures

- demonstrate an understanding of the order of operations with brackets and apply the order of operations in evaluating expressions that involve whole numbers and decimals **(NS&N- Gr. 7)**
- establish that a solution to an equation makes the equation true (limit to equations with one variable **(P&A. - Gr. 7)**
- understand the order of operations with brackets and exponents and apply the order of operations in evaluating expressions that involve fractions **(NS&N- Gr. 8)**
- interpret the solution of a given equation as specific number value that makes the equation true **(P&A. - Gr. 8)**

2) Making Connections

- make inferences and convincing arguments that are based on data analysis (eg., use census information to predict whether the population in Canada will increase) **(DM&P - Gr. 7)**
- evaluate arguments that are based on data analysis **(DM&P - Gr. 7)**
- make inferences and convincing arguments that are based on data analysis **(DM&P - Gr. 8)**
- evaluate arguments that are based on data analysis **(DM&P - Gr. 8)**
- use probability to describe everyday events **(DM&P - Gr. 8)**

3) Communicating

- establish that a solution to an equation makes the equation true (limit to equations with one variable) **(P&A. - Gr. 7)**
- interpret the solution of a given equation as specific number value that makes the equation true **(P&A. - Gr. 8)**

4) Reasoning and Proving

- perform three-step problem solving that involves whole numbers and decimals related to real-life experiences **(NS&N- Gr. 7)**
- explain the process used and any conclusion reached in problem solving and investigations **(NS&N- Gr. 7)**
- perform multi-step calculations involving whole numbers and decimals related in real-life situations, using calculators **(NS&N- Gr. 8)**
- explain the process used and any conclusions reached in problem solving and investigations **(NS&N- Gr. 8)**

5) Literacy Link

- reflect on learning experiences and describe their understanding using appropriate mathematical language (eg. in a math journal) **(NS&N- Gr. 7)**
- reflect on learning experiences and interpret and evaluate mathematical issues using appropriate mathematical language (e.g., in a math journal) **(NS&N- Gr. 8)**

6) Make Your Own Question

- ask "what if" questions, pose problems involving simple fractions, decimals, and percents: and investigate solutions **(NS&N- Gr. 7)**
- ask "what if" questions; pose problems involving fractions, decimals, integers, percents, and rational numbers; and investigate solutions **(NS&N- Gr. 8)**

Clock Activities:

1) Knowing Facts and Procedures

- estimate and calculate the perimeter and area of an irregular two-dimensional shape (eg., trapezoid, hexagon) **(Meas. - Gr. 7)**
- estimate and calculate the radius, diameter, circumference, and area of a circle, using a formula in a problem-solving context **(Meas. - Gr. 8)**

2) Making Connections

- identify, describe, compare, and classify geometric figures **(Geom. - Gr. 7)**
- construct and solve problems involving lines and angles **(Geom. - Gr. 8)**

3) Communicating

- demonstrate a verbal and written understanding of and ability to apply accurate measurement strategies that relate to their environment **(Meas. - Gr. 7)**
- demonstrate a verbal and written understanding of and ability to apply accurate measurement and estimate strategies that relate to their environment **(Meas. - Gr. 8)**

4) Reasoning and Proving

- explain, in writing, the process of problem solving using appropriate mathematical language **(NS&N- Gr. 7)**
- use mathematical language to explain the process used and the conclusions reached in problem solving **(NS&N- Gr. 8)**

5) Literacy Link

- use mathematical language effectively to describe geometric concepts, reasoning, and investigations **(Geom. - Gr. 7)**
- use mathematical language effectively to describe geometric concepts, reasoning, and investigations **(Geom. - Gr. 8)**

6) Make Your Own Question

- ask "what if" questions, pose problems involving simple fractions, decimals, and percents: and investigate solutions **(NS&N- Gr. 7)**
- ask "what if" questions; pose problems involving fractions, decimals, integers, percents, and rational numbers; and investigate solutions **(NS&N- Gr. 8)**

Tree Activities:

1) Knowing Facts and Procedures

- solve problems that involve converting between fractions, decimals, and percents **(NS&N- Gr. 7)**
- solve problems that involve converting between fractions, decimals, percents, unit rates, and ratios (e.g., that show the conversion of 1/3 to decimal form)**(NS&N- Gr. 8)**

2) Making Connections

- use estimation to justify or assess the reasonableness of calculations **(NS&N- Gr. 7)**
- use estimation to justify or assess the reasonableness of calculations **(NS&N- Gr. 8)**

3) Communicating

- research and report on uses of measurement instruments in projects at home, in the workplace, and in the community **(Meas. - Gr. 7)**
- research, describe, and report on uses of measurement in projects at home, in the workplace, and in the community that require precise measurements **(Meas. - Gr. 8)**

4) Reasoning and Proving

- identify two-dimensional shapes that meet certain criteria (eg. an isosceles triangle with a 40 degree angle) **(Geom. - Gr. 7)**
- apply the Pythagorean relationship to numerical problems involving area and right triangles **(Geom. - Gr. 8)**
- explain the Pythagorean relationship **(Geom. - Gr. 8)**

5) Literacy Link

- explain numerical information in their own words and respond to numerical information in a variety of media **(NS&N- Gr. 7)**
- explain numerical information in their own words and respond to numerical information in a variety of media **(NS&N- Gr. 8)**

6) Make Your Own Question

- ask "what if" questions, pose problems involving simple fractions, decimals, and percents: and investigate solutions **(NS&N- Gr. 7)**
- ask "what if" questions; pose problems involving fractions, decimals, integers, percents, and rational numbers; and investigate solutions **(NS&N- Gr. 8)**

Fountain Activities:

1) Knowing Facts and Procedures

- describe data using calculations of mean, median and mode **(DM&P - Gr. 7)**
- understand and apply the concept of the best measure of central tendency **(DM&P - Gr. 8)**

2) Making Connections

- understand that each measure of central tendency (mean, median, mode) gives different information about the data **(DM&P - Gr. 7)**
- determine the effect on a measure of central tendency of adding or removing a value (e.g., what happens to the mean when you add or delete a very low or very high data entry) **(DM&P - Gr. 8)**

3) Communicating

- describe measurement concepts using appropriate measurement vocabulary **(Meas. - Gr. 7)**
- explain the relationship between various units of measure **(Meas. - Gr. 8)**

4) Reasoning and Proving

- explain, in writing, the process of problem solving using appropriate mathematical language **(NS&N- Gr. 7)**
- apply volume formulas to problem-solving situations **(Meas. - Gr. 7)**
- use mathematical language to explain the process used and the conclusions reached in problem solving **(NS&N- Gr. 8)**
- apply volume and area formulas to problem-solving situations **(Meas. - Gr. 8)**

5) Literacy Link

- search databases for information and interpret the numerical data **(DM&P - Gr. 7)**
- ask questions to clarify and extend their knowledge of linear measurement, area, volume, capacity, and mass, using appropriate measurement vocabulary **(Meas. - Gr. 8)**
- search databases for information and use the quantitative data to solve problems **(DM&P - Gr. 8)**

6) Make Your Own Question

- ask "what if" questions, pose problems involving simple fractions, decimals, and percents: and investigate solutions **(NS&N- Gr. 7)**
- ask "what if" questions; pose problems involving fractions, decimals, integers, percents, and rational numbers; and investigate solutions **(NS&N- Gr. 8)**

Stairs Activities:

1) Knowing Facts and Procedures

- make increasingly more informed and accurate measurement estimations based on an understanding of formulas and the results of investigations **(Meas. - Gr. 7)**
- make increasingly more informed and accurate measurement estimations based on an understanding of formulas and the results of investigations **(Meas. - Gr. 8)**

2) Making Connections

- perform three-step problem solving that involves whole numbers and decimals related to real-life experiences **(NS&N- Gr. 7)**
- measure the radius, diameter, and circumference of a circle using concrete materials **(Meas. - Gr. 8)**

3) Communicating

- recognize the front, side and back views of three-dimensional figures **(Geom. - Gr. 7)**
- recognize three-dimensional figures from their top, side, and front views **(Geom. - Gr. 8)**

4) Reasoning and Proving

- solve and explain multi-step problems involving decimals **(NS&N- Gr. 7)**
- solve and explain multi-step problems involving decimals **(NS&N- Gr. 8)**

5) Literacy Link

- explain the process used and any conclusion reached in problem solving and investigations **(NS&N- Gr. 7)**
- explain the process used and any conclusions reached in problem solving and investigations **(NS&N- Gr. 8)**

6) Make Your Own Question

- ask "what if" questions, pose problems involving simple fractions, decimals, and percents: and investigate solutions **(NS&N- Gr. 7)**
- ask "what if" questions; pose problems involving fractions, decimals, integers, percents, and rational numbers; and investigate solutions **(NS&N- Gr. 8)**

Windows Activities:

1) Knowing Facts and Procedures

- use estimation to justify or assess the reasonableness of calculations **(NS&N- Gr. 7)**
- use estimation to justify or assess the reasonableness of calculations **(NS&N- Gr. 8)**

2) Making Connections

- identify whether a figure will tile a plane **(Geom. - Gr. 7)**
- construct and analyse tiling patterns with congruent tiles **(Geom. - Gr. 7)**
- apply patterning strategies in problem-solving situations **(P&A. - Gr. 7)**
- construct line segments and angles using a variety of methods (e.g., paper folding, ruler and compass)**(Geom. - Gr. 8)**
- apply patterning strategies in problem-solving situations **(P&A. - Gr. 8)**

3) Communicating

- reflect on learning experiences and describe their understanding using appropriate mathematical language (eg. in a math journal) **(NS&N- Gr. 7)**
- demonstrate an understanding of and apply unit rates in problem-solving situations **(NS&N- Gr. 8)**

4) Reasoning and Proving

- sketch three-dimensional objects from models and drawings **(Geom. - Gr. 7)**
- identify, draw, and represent three-dimensional geometric figures **(Geom. - Gr. 8)**

5) Literacy Link

- use mathematical language effectively to describe geometric concepts, reasoning, and investigations **(Geom. - Gr. 7)**
- use mathematical language effectively to describe geometric concepts, reasoning, and investigations **(Geom. - Gr. 8)**

6) Make Your Own Question

- ask "what if" questions, pose problems involving simple fractions, decimals, and percents: and investigate solutions **(NS&N- Gr. 7)**
- ask "what if" questions; pose problems involving fractions, decimals, integers, percents, and rational numbers; and investigate solutions **(NS&N- Gr. 8)**