<u>Mathematics</u>

Problem Solving Strategies and Skills

By the end of the school year, the student should be able to:

1. solve a problem as it relates to everyday situations.
2. use steps to solve problems.
3. use various strategies to solve a problem.
4. show all working as it relates to the problem.

Number Concepts

By the end of the school year, the student should be able to:

1. read and write numbers up to 9 999 999.
2. read and write place value and value up to 9 999 999.
3. compare and order numbers up to 9 999 999.
4. state the place value of a digit in numbers up to 9 999 999.
5. perform the basic operations (add, subtract, multiply divide) on whole numbers.
6. solve basic problems using four basic operations.
7. identify odd and even numbers.
8. recognize prime and composite numbers.
9. distinguish between factors and multiples.
10. recognize and determine factors of a given number.
11. recognize and determine multiples of a given number.
12. identify and use the Highest Common Factor of two or more numbers together.
13. identify and use the Lowest Common Factor of two or more numbers together.
14. express numbers as a product of its prime factors.
15. square a number.
16. find the square root of a number.

Fractions

By the end of the school year, the student should be able to:

1. understand the concept of a fraction.
2. use the written symbols for fractions.
3. use operations with fractions.
4. compare and order fractions.

Decimals

By the end of the school year, the student should be able to:

1. read and write decimal fractions up to thousandths.
2. write the place value/ value of digits in decimal fractions.
3. compare and order decimal fractions.
4. use operations with decimal fractions

Percentages
By the end of the school year, the student should be able to:

1. understand the concept of a percentage.
2. express percentages as fractions and vice versa.
3. express percentages as decimals and vice versa.
4. determine percentages of a number or quantity.
5. use percentages to determine taxes, discounts etc.

Ratio and Proportion

By the end of the school year, the student should be able to:

1. understand the concept of a ratio.
2. read and write ratios.
3. express a ratio as a fraction.
4. express ratios in their simplest form.
5. apply the concept of ratios to problems requiring sharing.

Measurement

By the end of the school year, the student should be able to:

Linear

1. determine length.
2. use instruments for measuring length.
3. know units for measuring length.
4. find the perimeter of shapes.

Area

1. use the units for measuring area.
2. find the area of regular shapes.
3. find the area of irregular shapes.
4. find the surface area of shapes.

Mass

1. use appropriate measurements for measuring mass.
2. find the mass of objects.

Capacity

1. use appropriate measurements for measuring capacity.
2. various containers to find capacity.

Time

1. use appropriate instruments for measuring time.
2. convert from one unit of time to another.
3. add, subtract, multiply and divide units of time.
4. determine the time between events.
5. understand the concept of distance, speed and time.

Money

1. identify local coins and bills.
2. represent currency as coins, bills and a combination of coins and bills.
3. use coins and bills in money transactions with and without change.
4. solve problems involving buying and selling.
5. develop an appreciation for saving money.
6. convert foreign currency to local and vice versa.

Geometry

By the end of the school year, the student should be able to:
1. identify lines of symmetry.
2. identify 2 -dimensional shapes.
3. draw 2-D shapes (square, rectangle, triangle, circle).
4. classify 2-D shapes according to their attributes.
5. classify triangles (equilateral, right angle, isosceles, scalene).
6. classify quadrilaterals.
7. identify 3-D shapes.
8. classify 3-D shapes according to their attributes.
9. identify and define line segments, angles, vertices.
10. identify and differentiate between different types of angles.
11. identify and draw lines (horizontal, parallel, perpendicular, intersection).
12. state the relationship between the radius and the diameter.
13. identify and name the parts of a circle – centre, diameter, circumference, chord.

Data Handling

By the end of the school year, the student should be able to:
1. locate position on a coordinate graph.
2. plot coordinates on a grid.
3. illustrate data using bar/line and pie graphs etc.

Sets

By the end of the school year, the student should be able to:
1. identify the intersection of two sets.
2. identify the union of two sets.
3. use Venn diagrams to illustrate sets.
4. use Venn diagrams to list the elements in a set.

Averages

By the end of the school year, the student should be able to:

1. find the averages of given data (mean, mode, median).

Probability

By the end of the school year, the student should be able to:
1. Find the probability terms and outcomes.

Language Arts

By the end of the school year, the student should be able to:

1. distinguish between a sentence and a phrase.
2. identify and use the four types of sentences.
3. identify the subject of a sentence.
4. identify the predicate of a sentence.
5. identify and use the parts of speech in a sentence.
6. identify and use figures of speech in a sentence.
7. use appropriate grammatical structure.
8. use appropriate spelling.
9. use correct punctuation.
10. identify grammatical errors in a sentence.
11. correctly use synonyms.
12. correctly use antonyms.
13. correctly use homonyms.
14. correctly use punctuation.
15. correctly use prefixes.
16. correctly use suffixes.

Reading: Skills and Strategies

By the end of the school year, the student should be able to:

1. use appropriate sight vocabulary to recognize words in isolation as well as in context.
2. use a range of decoding systems to determine pronunciation of words.
3. determine the meaning of unknown words using context,
4. glossaries and dictionaries.
5. read aloud (at independent level).
6. self-correct when subsequent reading indicates an earlier miscue.

Speaking and Listening Skills

By the end of the school year, the student should be able to:
1. speak clearly and audibly.
2. present information clearly.
3. use language appropriately to context.
4. speak fluently in recounting experiences.
5. ask appropriate questions.
6. discuss and orally present plans for solving problems.
7. contribute to group discussion.
8. follow oral directions with three or four steps.
9. listen to build memory.
10. follow written instructions.

Penmanship

By the end of the school year, the student should be able to:

1. accurately form and consistently size letters.
2. use a style of writing that is fluent and legible.
3. observe appropriate spacing between words.
4. head all work in a prescribed manner.
5. leave margins as required.

Comprehension

By the end of the school year, the student should be able to:

1. recognize and recall facts.
2. determine fact and opinion.
3. determine time and place of events.
4. sequence ideas.
5. make inferences.
6. draw conclusions.
7. predict outcomes.
8. find the main idea.

Composition

By the end of the school year, the student should be able to:

1. sequence a story.
2. plan for a narrative.
3. sequence sentences in expository writing.
4. alter stories.
5. write descriptive essays.
6. edit a story which was written by a peer.
7. write a letter of invitation.
8. write a letter of persuasion.
9. write a letter of apology.
10. write a business letter.
11. write an argumentative essay.