



## **Science Lesson Plans For Official Use**

# **Homeschooling Program Department**

**Revised on July 14th 2024**

# Grade 1 Mathematics Lesson Plan

## Term 1 (10 Weeks)

<b>Week</b>	<b>Learning Objectives</b>	<b>Content/Topics</b>	<b>Learning Experiences</b>	<b>Teaching/Learning Resources</b>	<b>Assessments (Projects etc)</b>
1	Understand numbers up to 20	Numbers 1-20	Counting objects, writing numbers, number songs	Counting blocks, number charts, songs	Counting exercises, number writing worksheets
2	Perform simple addition and subtraction	Addition and subtraction within 10	Using objects for addition/subtraction, simple word problems	Manipulatives, flashcards	Addition and subtraction worksheets
3	Identify and describe basic shapes	Shapes (circle, square, triangle)	Identifying shapes in the environment, drawing shapes	Shape cards, drawing materials	Shape identification and drawing tasks
4	Measure lengths using non-standard units	Measurement (non-standard units)	Measuring objects using blocks, hands, feet	Rulers, measuring tapes	Measurement activities
5	Create and interpret simple graphs	Data handling (pictographs)	Collecting data, creating pictographs	Graph paper, drawing tools	Creating and interpreting pictographs
6	Recognize patterns in numbers	Patterns (simple sequences)	Identifying and continuing patterns	Pattern blocks, number lines	Pattern recognition exercises

7	Understand and use positional language	Positional language (above, below, next to)	Placing objects according to instructions	Classroom objects, flashcards	Positional language tasks
8	Compare quantities using more, less, and equal	Comparing quantities	Comparing groups of objects, using terms more, less, equal	Objects for counting and comparison	Comparison exercises
9	Use simple problem-solving strategies	Problem-solving (basic operations)	Solving word problems, using manipulatives to represent problems	Manipulatives, problem cards	Problem-solving worksheets
10	Review and reinforce concepts	Review all topics covered	Games and activities to review concepts	Various resources used throughout the term	Comprehensive review activities

**Term 2 (10 Weeks)**

<b>Week</b>	<b>Learning Objectives</b>	<b>Content/Topics</b>	<b>Learning Experiences</b>	<b>Teaching/Learning Resources</b>	<b>Assessments (Projects etc)</b>
1	Extend number recognition up to 50	Numbers 1-50	Counting objects, writing numbers, number songs	Counting blocks, number charts, songs	Counting exercises, number writing worksheets
2	Perform addition and subtraction within 20	Addition and subtraction within 20	Using objects for addition/subtraction, solving word problems	Manipulatives, flashcards	Addition and subtraction worksheets

3	Identify and describe 2D shapes	Shapes (square, rectangle, circle, triangle)	Identifying shapes in the environment, drawing shapes	Shape cards, drawing materials	Shape identification and drawing tasks
4	Measure lengths using standard units	Measurement (standard units)	Measuring objects using rulers	Rulers, measuring tapes	Measurement activities
5	Create and interpret simple bar graphs	Data handling (bar graphs)	Collecting data, creating bar graphs	Graph paper, drawing tools	Creating and interpreting bar graphs
6	Recognize and create patterns	Patterns (repeating sequences)	Identifying and creating patterns	Pattern blocks, number lines	Pattern creation exercises
7	Understand and use ordinal numbers	Ordinal numbers (1st, 2nd, 3rd, etc.)	Using ordinal numbers in activities and games	Flashcards, classroom activities	Ordinal number tasks
8	Compare lengths and heights	Comparing measurements	Comparing lengths and heights of different objects	Objects for measuring, rulers	Measurement comparison exercises
9	Solve problems using addition and subtraction	Problem-solving (operations)	Solving word problems using addition and subtraction	Problem cards, manipulatives	Problem-solving worksheets
10	Review and reinforce concepts	Review all topics covered	Games and activities to review concepts	Various resources used throughout the term	Comprehensive review activities

**Term 3 (10 Weeks)**

<b>Week</b>	<b>Learning Objectives</b>	<b>Content/Topics</b>	<b>Learning Experiences</b>	<b>Teaching/Learning Resources</b>	<b>Assessments (Projects etc)</b>
1	Extend number recognition up to 100	Numbers 1-100	Counting objects, writing numbers, number songs	Counting blocks, number charts, songs	Counting exercises, number writing worksheets
2	Perform addition and subtraction within 50	Addition and subtraction within 50	Using objects for addition/subtraction, solving word problems	Manipulatives, flashcards	Addition and subtraction worksheets
3	Identify and describe 3D shapes	Shapes (sphere, cube, cone, cylinder)	Identifying shapes in the environment, drawing shapes	Shape cards, drawing materials	Shape identification and drawing tasks
4	Measure weight using non-standard units	Measurement (non-standard units)	Measuring weight using various objects	Scales, various objects	Measurement activities
5	Create and interpret simple tables	Data handling (tables)	Collecting data, creating tables	Graph paper, drawing tools	Creating and interpreting tables
6	Recognize and create complex patterns	Patterns (complex sequences)	Identifying and creating complex patterns	Pattern blocks, number lines	Pattern creation exercises
7	Understand and use money	Money (simple transactions)	Using play money in transactions, solving money problems	Play money, price tags, classroom shop	Money-related tasks
8	Compare capacities using	Comparing capacities	Comparing capacities of different containers	Containers, measuring cups	Capacity comparison exercises

	non-standard units				
9	Solve problems using multiplication and division	Problem-solving (basic multiplication and division)	Solving word problems using multiplication and division	Problem cards, manipulatives	Problem-solving worksheets
10	Review and reinforce concepts	Review all topics covered	Games and activities to review concepts	Various resources used throughout the term	Comprehensive review activities

## Grade 2 Mathematics Lesson Plan

### Term 1 (10 Weeks)

Week	Learning Objectives	Content/Topics	Learning Experiences	Teaching/Learning Resources	Assessments (Projects etc)
1	Understand numbers up to 100	Numbers 1-100	Counting objects, writing numbers, number songs	Counting blocks, number charts, songs	Counting exercises, number writing worksheets
2	Perform simple addition and subtraction	Addition and subtraction within 50	Using objects for addition/subtraction, simple word problems	Manipulatives, flashcards	Addition and subtraction worksheets
3	Identify and describe 2D shapes	Shapes (circle, square, triangle)	Identifying shapes in the environment, drawing shapes	Shape cards, drawing materials	Shape identification and drawing tasks

4	Measure lengths using non-standard units	Measurement (non-standard units)	Measuring objects using blocks, hands, feet	Rulers, measuring tapes	Measurement activities
5	Create and interpret simple graphs	Data handling (pictographs)	Collecting data, creating pictographs	Graph paper, drawing tools	Creating and interpreting pictographs
6	Recognize patterns in numbers	Patterns (simple sequences)	Identifying and continuing patterns	Pattern blocks, number lines	Pattern recognition exercises
7	Understand and use positional language	Positional language (above, below, next to)	Placing objects according to instructions	Classroom objects, flashcards	Positional language tasks
8	Compare quantities using more, less, and equal	Comparing quantities	Comparing groups of objects, using terms more, less, equal	Objects for counting and comparison	Comparison exercises
9	Use simple problem-solving strategies	Problem-solving (basic operations)	Solving word problems, using manipulatives to represent problems	Manipulatives, problem cards	Problem-solving worksheets
10	Review and reinforce concepts	Review all topics covered	Games and activities to review concepts	Various resources used throughout the term	Comprehensive review activities

**Term 2 (10 Weeks)**

<b>Week</b>	<b>Learning Objectives</b>	<b>Content/Topics</b>	<b>Learning Experiences</b>	<b>Teaching/Learning Resources</b>	<b>Assessments (Projects etc)</b>
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1	Extend number recognition up to 200	Numbers 1-200	Counting objects, writing numbers, number songs	Counting blocks, number charts, songs	Counting exercises, number writing worksheets
2	Perform addition and subtraction within 100	Addition and subtraction within 100	Using objects for addition/subtraction, solving word problems	Manipulatives, flashcards	Addition and subtraction worksheets
3	Identify and describe 3D shapes	Shapes (sphere, cube, cone, cylinder)	Identifying shapes in the environment, drawing shapes	Shape cards, drawing materials	Shape identification and drawing tasks
4	Measure lengths using standard units	Measurement (standard units)	Measuring objects using rulers	Rulers, measuring tapes	Measurement activities
5	Create and interpret simple bar graphs	Data handling (bar graphs)	Collecting data, creating bar graphs	Graph paper, drawing tools	Creating and interpreting bar graphs
6	Recognize and create patterns	Patterns (repeating sequences)	Identifying and creating patterns	Pattern blocks, number lines	Pattern creation exercises
7	Understand and use ordinal numbers	Ordinal numbers (1st, 2nd, 3rd, etc.)	Using ordinal numbers in activities and games	Flashcards, classroom activities	Ordinal number tasks
8	Compare lengths and heights	Comparing measurements	Comparing lengths and heights of different objects	Objects for measuring, rulers	Measurement comparison exercises



9	Solve problems using addition and subtraction	Problem-solving (operations)	Solving word problems using addition and subtraction	Problem cards, manipulatives	Problem-solving worksheets
10	Review and reinforce concepts	Review all topics covered	Games and activities to review concepts	Various resources used throughout the term	Comprehensive review activities

### Term 3 (10 Weeks)

<b>Week</b>	<b>Learning Objectives</b>	<b>Content/Topics</b>	<b>Learning Experiences</b>	<b>Teaching/Learning Resources</b>	<b>Assessments (Projects etc)</b>
1	Extend number recognition up to 500	Numbers 1-500	Counting objects, writing numbers, number songs	Counting blocks, number charts, songs	Counting exercises, number writing worksheets
2	Perform addition and subtraction within 200	Addition and subtraction within 200	Using objects for addition/subtraction, solving word problems	Manipulatives, flashcards	Addition and subtraction worksheets
3	Identify and describe complex shapes	Complex shapes	Identifying shapes in the environment, drawing shapes	Shape cards, drawing materials	Shape identification and drawing tasks
4	Measure weight using non-standard units	Measurement (non-standard units)	Measuring weight using various objects	Scales, various objects	Measurement activities
5	Create and interpret simple tables	Data handling (tables)	Collecting data, creating tables	Graph paper, drawing tools	Creating and interpreting tables

6	Recognize and create complex patterns	Patterns (complex sequences)	Identifying and creating complex patterns	Pattern blocks, number lines	Pattern creation exercises
7	Understand and use money	Money (simple transactions)	Using play money in transactions, solving money problems	Play money, price tags, classroom shop	Money-related tasks
8	Compare capacities using non-standard units	Comparing capacities	Comparing capacities of different containers	Containers, measuring cups	Capacity comparison exercises
9	Solve problems using multiplication and division	Problem-solving (basic multiplication and division)	Solving word problems using multiplication and division	Problem cards, manipulatives	Problem-solving worksheets
10	Review and reinforce concepts	Review all topics covered	Games and activities to review concepts	Various resources used throughout the term	Comprehensive review activities

## Grade 3 Mathematics Lesson Plan

### Term 1 (10 Weeks)

Week	Learning Objectives	Content/Topics	Learning Experiences	Teaching/Learning Resources	Assessments (Projects etc)
1	Understand numbers up to 1,000	Numbers 1-1,000	Counting objects, writing numbers, place value	Counting blocks, number charts, place value charts	Counting and place value exercises

2	Perform addition and subtraction with regrouping	Addition and subtraction within 1,000	Using objects for addition/subtraction, word problems	Manipulatives, flashcards, worksheets	Addition and subtraction exercises
3	Identify and describe 3D shapes	Shapes (cube, cuboid, cylinder, sphere)	Identifying shapes in the environment, drawing shapes	Shape cards, drawing materials	Shape identification and drawing tasks
4	Measure lengths using standard units	Measurement (centimeters, meters)	Measuring objects using rulers, comparing lengths	Rulers, measuring tapes	Measurement activities
5	Create and interpret simple bar graphs	Data handling (bar graphs)	Collecting data, creating bar graphs	Graph paper, drawing tools	Creating and interpreting bar graphs
6	Recognize patterns in numbers	Patterns (number sequences)	Identifying and continuing patterns	Pattern blocks, number lines	Pattern recognition exercises
7	Understand and use multiplication and division	Multiplication and division within 100	Using objects for multiplication/division, word problems	Manipulatives, flashcards, worksheets	Multiplication and division exercises
8	Compare and order numbers	Comparing and ordering numbers	Using number lines, comparing sets of numbers	Number lines, comparison cards	Number comparison exercises
9	Solve problems using all four operations	Problem-solving (all operations)	Solving word problems using addition, subtraction, multiplication, and division	Problem cards, manipulatives	Problem-solving worksheets

10	Review and reinforce concepts	Review all topics covered	Games and activities to review concepts	Various resources used throughout the term	Comprehensive review activities
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**Term 2 (10 Weeks)**

<b>Week</b>	<b>Learning Objectives</b>	<b>Content/Topics</b>	<b>Learning Experiences</b>	<b>Teaching/Learning Resources</b>	<b>Assessments (Projects etc)</b>
1	Extend number recognition up to 10,000	Numbers 1-10,000	Counting objects, writing numbers, place value	Counting blocks, number charts, place value charts	Counting and place value exercises
2	Perform addition and subtraction with larger numbers	Addition and subtraction within 10,000	Using objects for addition/subtraction, solving word problems	Manipulatives, flashcards, worksheets	Addition and subtraction exercises
3	Identify and describe properties of 3D shapes	Properties of 3D shapes (faces, edges, vertices)	Identifying and describing 3D shapes	Shape cards, drawing materials	Shape identification and description tasks
4	Measure weight using standard units	Measurement (grams, kilograms)	Measuring objects using scales, comparing weights	Scales, various objects	Measurement activities
5	Create and interpret simple pictographs	Data handling (pictographs)	Collecting data, creating pictographs	Graph paper, drawing tools	Creating and interpreting pictographs
6	Recognize and create complex patterns	Patterns (complex sequences)	Identifying and creating complex patterns	Pattern blocks, number lines	Pattern creation exercises

7	Understand and use fractions	Fractions (halves, quarters, eighths)	Identifying fractions in objects, drawing fractions	Fraction cards, worksheets	Fraction identification and drawing tasks
8	Compare and order fractions	Comparing and ordering fractions	Using fraction strips, comparing sets of fractions	Fraction strips, comparison cards	Fraction comparison exercises
9	Solve problems using multiplication and division	Problem-solving (multiplication and division)	Solving word problems using multiplication and division	Problem cards, manipulatives	Problem-solving worksheets
10	Review and reinforce concepts	Review all topics covered	Games and activities to review concepts	Various resources used throughout the term	Comprehensive review activities

### Term 3 (10 Weeks)

<b>Week</b>	<b>Learning Objectives</b>	<b>Content/Topics</b>	<b>Learning Experiences</b>	<b>Teaching/Learning Resources</b>	<b>Assessments (Projects etc)</b>
1	Extend number recognition up to 100,000	Numbers 1-100,000	Counting objects, writing numbers, place value	Counting blocks, number charts, place value charts	Counting and place value exercises
2	Perform addition and subtraction with very large numbers	Addition and subtraction within 100,000	Using objects for addition/subtraction, solving word problems	Manipulatives, flashcards, worksheets	Addition and subtraction exercises
3	Identify and describe properties of	Complex shapes and properties	Identifying and describing complex shapes	Shape cards, drawing materials	Shape identification and description tasks

	complex shapes				
4	Measure capacity using standard units	Measurement (liters, milliliters)	Measuring liquids using measuring cups, comparing capacities	Measuring cups, various containers	Measurement activities
5	Create and interpret simple tables	Data handling (tables)	Collecting data, creating tables	Graph paper, drawing tools	Creating and interpreting tables
6	Recognize and create complex number patterns	Number patterns (complex sequences)	Identifying and creating complex number patterns	Pattern blocks, number lines	Pattern creation exercises
7	Understand and use decimals	Decimals (tenths, hundredths)	Identifying decimals in objects, drawing decimals	Decimal cards, worksheets	Decimal identification and drawing tasks
8	Compare and order decimals	Comparing and ordering decimals	Using decimal strips, comparing sets of decimals	Decimal strips, comparison cards	Decimal comparison exercises
9	Solve problems using all four operations with larger numbers	Problem-solving (all operations with larger numbers)	Solving word problems using all four operations with larger numbers	Problem cards, manipulatives	Problem-solving worksheets
10	Review and reinforce concepts	Review all topics covered	Games and activities to review concepts	Various resources used throughout the term	Comprehensive review activities

## Grade 4 Mathematics Lesson Plan

### Term 1 (10 Weeks)

<b>Week</b>	<b>Learning Objectives</b>	<b>Content/Topics</b>	<b>Learning Experiences</b>	<b>Teaching/Learning Resources</b>	<b>Assessments (Projects etc)</b>
1	Understand numbers up to 10,000	Numbers 1-10,000	Counting, writing numbers, place value	Place value charts, number lines	Counting exercises, place value worksheets
2	Perform addition and subtraction with regrouping	Addition and subtraction within 10,000	Adding and subtracting larger numbers, word problems	Manipulatives, worksheets	Addition and subtraction exercises
3	Identify and describe 3D shapes	Geometry (cube, cuboid, cylinder)	Identifying shapes, drawing and constructing shapes	Shape cards, drawing materials	Shape identification and construction tasks
4	Measure lengths using standard units	Measurement (cm, m)	Measuring objects, comparing lengths	Rulers, measuring tapes	Measurement activities
5	Create and interpret bar graphs	Data handling (bar graphs)	Collecting data, creating bar graphs	Graph paper, drawing tools	Creating and interpreting bar graphs
6	Recognize patterns in numbers	Patterns (number sequences)	Identifying and continuing patterns	Pattern blocks, number lines	Pattern recognition exercises
7	Understand and use multiplication and division	Multiplication and division within 100	Multiplying and dividing using objects,	Manipulatives, flashcards, worksheets	Multiplication and division exercises

			solving word problems		
8	Compare and order numbers	Comparing and ordering numbers	Using number lines, comparing sets of numbers	Number lines, comparison cards	Number comparison exercises
9	Solve problems using all four operations	Problem-solving (addition, subtraction, multiplication, and division)	Solving word problems using all four operations	Problem cards, manipulatives	Problem-solving worksheets
10	Review and reinforce concepts	Review all topics covered	Games and activities to review concepts	Various resources used throughout the term	Comprehensive review activities

### Term 2 (10 Weeks)

<b>Week</b>	<b>Learning Objectives</b>	<b>Content/Topics</b>	<b>Learning Experiences</b>	<b>Teaching/Learning Resources</b>	<b>Assessments (Projects etc)</b>
1	Extend number recognition up to 100,000	Numbers 1-100,000	Counting, writing numbers, place value	Place value charts, number lines	Counting exercises, place value worksheets
2	Perform addition and subtraction with larger numbers	Addition and subtraction within 100,000	Adding and subtracting larger numbers, solving word problems	Manipulatives, worksheets	Addition and subtraction exercises
3	Identify and describe properties of 3D shapes	Properties of 3D shapes (faces, edges, vertices)	Identifying and describing shapes	Shape cards, drawing materials	Shape identification and description tasks



4	Measure weight using standard units	Measurement (grams, kilograms)	Measuring objects, comparing weights	Scales, various objects	Measurement activities
5	Create and interpret pictographs	Data handling (pictographs)	Collecting data, creating pictographs	Graph paper, drawing tools	Creating and interpreting pictographs
6	Recognize and create complex patterns	Patterns (complex sequences)	Identifying and creating complex patterns	Pattern blocks, number lines	Pattern creation exercises
7	Understand and use fractions	Fractions (halves, quarters, eighths)	Identifying and using fractions, drawing fractions	Fraction cards, worksheets	Fraction identification and drawing tasks
8	Compare and order fractions	Comparing and ordering fractions	Using fraction strips, comparing sets of fractions	Fraction strips, comparison cards	Fraction comparison exercises
9	Solve problems using multiplication and division	Problem-solving (multiplication and division)	Solving word problems using multiplication and division	Problem cards, manipulatives	Problem-solving worksheets
10	Review and reinforce concepts	Review all topics covered	Games and activities to review concepts	Various resources used throughout the term	Comprehensive review activities

**Term 3 (10 Weeks)**

<b>Week</b>	<b>Learning Objectives</b>	<b>Content/Topics</b>	<b>Learning Experiences</b>	<b>Teaching/Learning Resources</b>	<b>Assessments (Projects etc)</b>
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1	Extend number recognition up to 1,000,000	Numbers 1-1,000,000	Counting, writing numbers, place value	Place value charts, number lines	Counting exercises, place value worksheets
2	Perform addition and subtraction with very large numbers	Addition and subtraction within 1,000,000	Adding and subtracting very large numbers, solving word problems	Manipulatives, worksheets	Addition and subtraction exercises
3	Identify and describe complex shapes	Complex shapes and properties	Identifying and describing complex shapes	Shape cards, drawing materials	Shape identification and description tasks
4	Measure capacity using standard units	Measurement (liters, milliliters)	Measuring liquids, comparing capacities	Measuring cups, various containers	Measurement activities
5	Create and interpret tables	Data handling (tables)	Collecting data, creating tables	Graph paper, drawing tools	Creating and interpreting tables
6	Recognize and create complex number patterns	Number patterns (complex sequences)	Identifying and creating complex number patterns	Pattern blocks, number lines	Pattern creation exercises
7	Understand and use decimals	Decimals (tenths, hundredths)	Identifying and using decimals, drawing decimals	Decimal cards, worksheets	Decimal identification and drawing tasks

8	Compare and order decimals	Comparing and ordering decimals	Using decimal strips, comparing sets of decimals	Decimal strips, comparison cards	Decimal comparison exercises
9	Solve problems using all four operations with larger numbers	Problem-solving (addition, subtraction, multiplication, and division)	Solving word problems using all four operations with larger numbers	Problem cards, manipulatives	Problem-solving worksheets
10	Review and reinforce concepts	Review all topics covered	Games and activities to review concepts	Various resources used throughout the term	Comprehensive review activities

## Grade 5 Mathematics Lesson Plan

### Term 1 (10 Weeks)

<b>Week</b>	<b>Learning Objectives</b>	<b>Content/Topics</b>	<b>Learning Experiences</b>	<b>Teaching/Learning Resources</b>	<b>Assessments (Projects etc)</b>
1-2	Understand numbers up to 100,000	Numbers 1-100,000	Counting, writing numbers, place value	Place value charts, number lines	Counting exercises, place value worksheets
3	Identify and describe properties of 3D shapes	Geometry (cube, cuboid, cylinder)	Identifying shapes, drawing and constructing shapes	Shape cards, drawing materials	Shape identification and construction tasks
4-5	Measure lengths and calculate area	Measurement (cm, m, square units)	Measuring objects, calculating area of rectangles and squares	Rulers, measuring tapes, graph paper	Measurement and area calculation activities

6-7	Perform addition and subtraction with regrouping	Addition and subtraction within 100,000	Adding and subtracting larger numbers, word problems	Manipulatives, worksheets	Addition and subtraction exercises
8	Create and interpret bar graphs	Data handling (bar graphs)	Collecting data, creating bar graphs	Graph paper, drawing tools	Creating and interpreting bar graphs
9	Recognize and create patterns in numbers	Patterns (number sequences)	Identifying and continuing patterns	Pattern blocks, number lines	Pattern recognition exercises
10	Review and reinforce concepts	Review all topics covered	Games and activities to review concepts	Various resources used throughout the term	Comprehensive review activities

### Term 2 (10 Weeks)

<b>Week</b>	<b>Learning Objectives</b>	<b>Content/Topics</b>	<b>Learning Experiences</b>	<b>Teaching/Learning Resources</b>	<b>Assessments (Projects etc)</b>
1-3	Extend number recognition up to 1,000,000	Numbers 1-1,000,000	Counting, writing numbers, place value	Place value charts, number lines	Counting exercises, place value worksheets
4	Identify and describe complex shapes	Geometry (complex shapes)	Identifying and describing shapes, constructing models	Shape cards, drawing materials	Shape identification and construction tasks
5-6	Measure weight using standard units	Measurement (grams, kilograms)	Measuring objects, comparing weights	Scales, various objects	Measurement activities

7-8	Perform multiplication and division	Multiplication and division within 1,000	Multiplying and dividing larger numbers, solving word problems	Manipulatives, flashcards, worksheets	Multiplication and division exercises
9	Create and interpret pictographs	Data handling (pictographs)	Collecting data, creating pictographs	Graph paper, drawing tools	Creating and interpreting pictographs
10	Recognize and create complex patterns	Patterns (complex sequences)	Identifying and creating complex patterns	Pattern blocks, number lines	Pattern creation exercises

**Term 3 (10 Weeks)**

<b>Week</b>	<b>Learning Objectives</b>	<b>Content/Topics</b>	<b>Learning Experiences</b>	<b>Teaching/Learning Resources</b>	<b>Assessments (Projects etc)</b>
1-2	Extend number recognition and operations	Numbers 1-1,000,000, addition, and subtraction	Counting, writing numbers, performing operations	Place value charts, number lines	Counting exercises, operations worksheets
3	Identify and describe properties of complex shapes	Geometry (complex shapes)	Identifying and describing shapes, constructing models	Shape cards, drawing materials	Shape identification and construction tasks
4	Measure capacity using standard units	Measurement (liters, milliliters)	Measuring liquids, comparing capacities	Measuring cups, various containers	Measurement activities

5-6	Understand and use fractions and decimals	Fractions and decimals	Identifying and using fractions/decimals, solving problems	Fraction/decimal cards, worksheets	Fraction and decimal exercises
7	Compare and order fractions and decimals	Comparing and ordering fractions/decimals	Using fraction strips, decimal strips, solving problems	Fraction/decimal strips, comparison cards	Fraction and decimal comparison exercises
8-9	Create and interpret tables and graphs	Data handling (tables, graphs)	Collecting data, creating tables and graphs	Graph paper, drawing tools	Creating and interpreting tables and graphs
10	Review and reinforce concepts	Review all topics covered	Games and activities to review concepts	Various resources used throughout the term	Comprehensive review activities

## Grade 6 Mathematics Lesson Plan

### Term 1 (10 Weeks)

Week	Learning Objectives	Content/Topics	Learning Experiences	Teaching/Learning Resources	Assessments (Projects etc)
1-2	Understand and use large numbers up to 1,000,000	Numbers 1-1,000,000	Counting, writing numbers, understanding place value	Place value charts, number lines	Place value and number writing exercises
3	Perform addition and subtraction with large numbers	Addition and subtraction	Adding and subtracting large numbers, solving word problems	Manipulatives, worksheets	Addition and subtraction exercises

4	Identify and describe properties of 3D shapes	Geometry (3D shapes)	Identifying and describing properties of cubes, spheres, cylinders	Shape models, drawing tools	Shape identification and description tasks
5	Measure length, mass, and capacity	Measurement (standard units)	Measuring objects using rulers, scales, and measuring jugs	Rulers, scales, measuring jugs	Measurement activities
6	Create and interpret bar graphs and line plots	Data handling (graphs and plots)	Collecting data, creating bar graphs and line plots	Graph paper, rulers, data sets	Creating and interpreting graphs
7	Recognize and use patterns in numbers	Patterns and sequences	Identifying, continuing, and creating patterns in numbers	Pattern blocks, number lines	Pattern recognition and creation exercises
8	Understand and use basic algebraic concepts	Introduction to algebra	Solving simple equations, using variables	Algebra tiles, worksheets	Algebraic expression and equation solving
9	Compare and order fractions	Fractions	Comparing, ordering, and simplifying fractions	Fraction strips, number lines	Fraction comparison and simplification tasks
10	Review and reinforce concepts	Review all topics covered	Games, quizzes, and activities to review concepts	Various resources used throughout the term	Comprehensive review activities

**Term 2 (10 Weeks)**

<b>Week</b>	<b>Learning Objectives</b>	<b>Content/Topics</b>	<b>Learning Experiences</b>	<b>Teaching/Learning Resources</b>	<b>Assessments (Projects etc)</b>
1-2	Extend number recognition and place value understanding	Large numbers and place value	Counting, writing, and understanding place value of numbers up to 10,000,000	Place value charts, number lines	Place value exercises
3	Perform multiplication and division with large numbers	Multiplication and division	Multiplying and dividing large numbers, solving word problems	Manipulatives, worksheets	Multiplication and division exercises
4	Identify and describe complex shapes	Geometry (complex shapes)	Identifying, describing, and constructing complex shapes	Shape models, drawing tools	Shape identification and construction tasks
5	Measure and calculate area and perimeter	Area and perimeter	Measuring and calculating the area and perimeter of various shapes	Graph paper, rulers	Area and perimeter calculation activities
6	Create and interpret pie charts	Data handling (pie charts)	Collecting data, creating and interpreting pie charts	Graph paper, protractors	Creating and interpreting pie charts



7	Understand and use decimals	Decimals	Reading, writing, and comparing decimals, solving decimal problems	Decimal cards, number lines	Decimal exercises and problem-solving
8	Solve problems using fractions and decimals	Fractions and decimals	Solving word problems involving fractions and decimals	Fraction strips, decimal grids	Fraction and decimal problem-solving activities
9	Understand and use ratios and proportions	Ratios and proportions	Solving problems involving ratios and proportions	Ratio cards, manipulatives	Ratio and proportion exercises
10	Review and reinforce concepts	Review all topics covered	Games, quizzes, and activities to review concepts	Various resources used throughout the term	Comprehensive review activities

**Term 3 (10 Weeks)**

<b>Week</b>	<b>Learning Objectives</b>	<b>Content/Topics</b>	<b>Learning Experiences</b>	<b>Teaching/Learning Resources</b>	<b>Assessments (Projects etc)</b>
1-2	Review and extend knowledge of all four operations	Addition, subtraction, multiplication, division	Solving complex word problems, using all four operations	Manipulatives, problem cards	Multi-operation problem-solving activities
3	Identify and use angles in geometric figures	Geometry (angles)	Measuring and identifying angles in shapes, solving angle problems	Protractors, angle cards	Angle measurement and identification exercises

4	Measure and calculate volume	Volume	Measuring and calculating the volume of solids	Measuring containers, volume formulas	Volume calculation activities
5	Create and interpret histograms and line graphs	Data handling (histograms, line graphs)	Collecting data, creating and interpreting histograms and line graphs	Graph paper, rulers	Creating and interpreting histograms and line graphs
6	Understand and use percentages	Percentages	Calculating percentages, solving percentage problems	Percentage charts, worksheets	Percentage calculation exercises
7	Solve problems involving algebraic expressions	Algebra	Simplifying expressions, solving equations	Algebra tiles, worksheets	Algebraic expression and equation solving
8	Understand and use probability	Probability	Calculating probabilities, understanding probability concepts	Probability tools (dice, spinners)	Probability exercises
9	Solve complex problems using mixed operations	Mixed operations	Solving multi-step word problems using mixed operations	Problem cards, manipulatives	Mixed operation problem-solving activities
10	Final review and preparation for National Grade 6 Assessment	Review all topics covered	Comprehensive review, practice tests, and quizzes	Various resources used throughout the year	Practice tests and review activities