Mathematics Syllabus
Grade 1

Learning and Teaching Mathematics in Grade One

Learning mathematics is like building a wall – there must be a strong foundation to be built upon. This curriculum is divided into four areas of learning – numeracy, measurement, shape and data handling. Each topic, is gradually extended only when the previous work is well understood, or when the brick before is firmly in place.

Care must be taken that the pupil not only knows and can use the basics of mathematics but also understands the concepts. Oral work is particularly important at Grade One with opportunities for the students to speak mathematical language and not merely listen to the teacher.

Mathematics for the young pupil should be closely related to their everyday life. The use of concrete material is essential and the pupil should be allowed to use these as long as needed. Sticks, bottle tops and beans are recommended for sorting, describing and grouping and later these activities are expanded as each theme is explored. Story sums are given to stress the use of numeracy for daily living and these slowly become more advanced as the pupil progresses. These activities will consolidate understanding of the concepts of the number operations.

Various teaching methods should be used - exposition by the teacher, discussion, activity by the pupil and enquiry. Games, puzzles, rhymes, songs and number patterns are enjoyed by everyone and should be included right from Grade One. An important task of the teacher at the early stage is to help the pupil understand the beauty of mathematics and how it can be fun. Activities such as games, songs, experiments and competitions can be used to illustrate this aspect of mathematics to the pupils.

The Learning Objectives for Grade One

Besides developing students in computational skills, mathematics lessons in Grade One are directed towards:
- developing the student's problem solving abilities
- encouraging an enjoyment of mathematics and a wish to continue its study
- enabling the student to apply what he has learned at school in everyday practical life.
- fostering those modes of behavior and character of pupils, which are of great social value.

To achieve these the following learning objectives should be reached by the end of Grade One.
Students should be able to:
- count, read and write the whole numbers up to 100.
- represent whole numbers up to 100 and show understanding of place value
- acquire basic skills in handling money
- use concrete examples to show understanding of halves and quarters
- using non- formal measures find length, weight and capacity of everyday objects
- draw and recognize rectangles, triangles and circles
- solve addition and subtraction problems, with whole numbers up to 100, quickly and accurately.
- solve problems of multiplication up to 100 by multiplying by 2 and 10.
- solve problems of division by the divisor 2.
- list some important relations between the four fundamental operations.
- solve practical word problems using the four operations on whole numbers up to 100
- acquire basic knowledge of Ethiopian currency
- acquire basic knowledge of time
- use pictures to record and read simple data
- complete simple patterns of colour, shape and number

Unit 1: The natural numbers up to 9 *(20 periods)*

Unit outcomes: Students will be able to:

- read and write natural numbers up to 9.
- order natural numbers up to 9.
- use the symbols "<", ">" and "=" to compare natural numbers up to 9.

Competencies	*Contents*	*Teaching and learning activities and resources*	*Assessment Techniques*
Students will be able to: • compare, sort and match concrete objects and pictures • read digits 1 to 5 • read aloud 1 to 5 and back from 5 to 1 • write digits 1 to 5 • Identify and use the symbols "<", ">" and "=".	***1. The natural numbers up to 9*** **1.1 The natural numbers 1- 5 and their order** *(10 periods)*	• Working in groups students sort, match and compare objects such as bottle tops, beans, stones etc. and/or pictures of objects or dots up to 5. • Groups discuss two sets with respect to the number of elements using phrases "more than", "less than", "equally" and "many". • Introduce the natural numbers 1,2, 3, 4, 5 and their symbols using the sets of objects or pictures • Students match the number symbols to sets of objects • Students practice counting forward and back from 1 to 5 • Students practice writing different curves and the symbols for 1, 2, 3, 4, 5 drawing them in the air with their fingers and then using dotted symbols to trace round. • Students compare numbers using the concrete objects • Students practice the correct order of the numbers 1 to 5 in writing. • Draw a large number line on the floor or the blackboard, marked from 1- 5 and introduce the symbols "< " ">" "=" • Students practice these symbols using concrete objects and the number line.	• Ask students to sort, match and compare the objects in the concrete objects and the pictures • Ask students to recognize and read the digits 1 to 5 loudly. • Check how well Students can write the numbers 1 - 5 • Ask students to identify and use the symbols "<", ">" and "=". • Ask Students to count 1 to 5 and back from 5 to 1.
• read digits 6 to 9. • write digits 6 to 9 • determine the numbers before and after a given number • order numbers and compare numbers 1-9 • use the symbol for zero • draw a number line from 0 to 9	**1.2 The natural numbers 6-9 and their order** *(10 periods)*	• Introduce the natural numbers 6,7,8,9 using groups of concrete objects or pictures. • Students practice reading and writing number symbols 6,7, 8,9. • Students match sets of concrete objects and pictures with number names and number symbols • Students in pairs name the number before and the number after a given number. • Students order and compare numbers 1-9 • Students read aloud from 1-9 and back • Students compare sets of concrete objects using the symbols "< ", " = " and ">"	• Ask Students to read digits 6 - 9 • Class work on writing the digits 6 up to 9 • Home work on writing the digits up to 9. • Ask Students to order • some numbers to 9 • Ask Students to determine the number before and after a given number from 6 – 9

Unit 2: Addition and subtraction up to 9 *(22 periods)*

Unit outcomes: Students will be able to:
- add natural numbers up to 9.
- subtract natural numbers up to 9
- add three numbers whose sum is not more than 9.

Competencies	*Contents*	*Teaching and learning activities and resources*	*Assessment Techniques*
Students will be able to: • add natural numbers up to 5 • add natural numbers up to 9	*2. Addition and subtraction up to 9* **2.1 Addition of natural numbers, sum not exceeding 9** *(9 periods)*	• Students add two natural numbers (sum not greater than 5) with the help of concrete objects, pictures, the abacus. Introduce the symbols "+" and "=" and ask the students to write the addition of two natural numbers using these symbols horizontally • Introduce the concepts "to add" and "sum" and let the students use them orally. • Students discover the commutative property of addition by using objects (do not use the term) and use it • Students develop the concept of addition with sum not greater than 9 through using concrete materials and exercises (both orally and in writing). • Students write addition sums both horizontally and vertically • Students solve and make up addition problems like "I am thinking of a number. If I add 5 to it my answer is 8. What was the number I thought of?"	• oral questions on adding numbers up to 5. • class works/home works on adding two numbers whose sum is not more than 5 • Oral questions on sums of two numbers up to 9. (you can ask students question like: "what must be added to 3 to get 5?")
• subtract natural numbers up to 5 • subtract natural numbers up to 9 • the relationship between addition and subtraction • simple problems using subtraction	**2.2 Subtraction of natural numbers up to 9** *(9 periods)*	• Students develop the concept of subtraction of two natural numbers up to 5 using the phrase 'take away' using groups of concrete objects, the abacus and pictures or flash cards • Introduce "minus" in the verbal formulation and the symbol "-" to write subtraction sums horizontally and allow students to practice. • Introduce the notions "to subtract" and "finding the difference" and allow students to use them orally. • Students develop the concept of subtraction with numbers up to 9, through different exercises writing the sums both horizontally and vertically	• Oral and written questions on subtraction of numbers up to 5. like. $5 - 2 = ?$ • Class work and home work on subtraction of numbers up to 9 orally and written.

Competencies	*Contents*	*Teaching and learning activities and resources*	*Assessment Techniques*
• add three numbers whose sum is not more than 9.	**2.3 Addition of three numbers sum not exceeding 9** *(4 periods)*	• Students discover the relationship between addition and subtraction, subtraction as inverse operation of addition using of groups of objects • like 8 - 2 = 6 means 2 + 6 = 8 • Students solve and make up problems using subtraction • Discuss the sum of three numbers where the sum does not exceed 9 by using concrete material and then written exercises eg. 1 + 3 + 5 and 2 + 3 + 4 • Give simple word problems involving three numbers with sum up to 9 • Students make up simple word problems	• Class works and home works on addition of three addends. like. 2 + 4+ 1 = ?

Unit 3: **Whole numbers from 0 to 20** *(12 periods)*
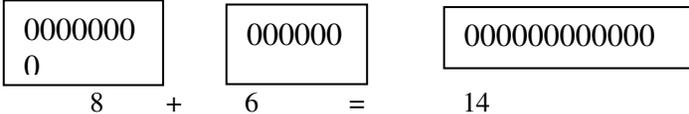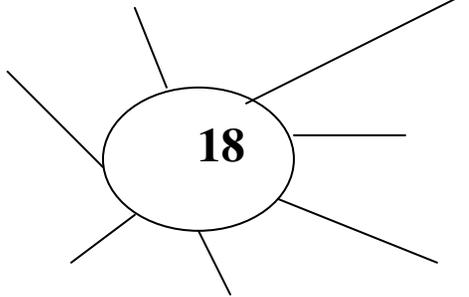
Unit outcomes: Students will be able to:
- show understand of zero and write the symbol for zero "0"
- read, write and order whole numbers up to 20.
- apply place value to numbers up to 20.

Competencies	*Contents*	*Teaching and learning activities and resources*	*Assessment Techniques*

Students will be able to:
 	
• discuss the concept of zero
• read and write the symbol for zero
• order and compare numbers using zero (0)
• add and subtract using 0
• count and write whole numbers up to 20 forwards and backwards.
• describe numbers between 10 and 20 as a sum of 10 and a one digit number.
• determine the number before and after numbers up to 20
• compare numbers up to 20 using " = "," <", ">"
	3. The whole numbers from 0 up to 20
	3.1 The number zero
	(3 periods)
	
	3.2 Whole numbers up to 20 and their order
	(6 periods)
		• Use empty sets (eg. a set of pigs with five heads) and the number line to introduce the concept of zero
		• Students practice writing the symbol for zero (0)
		• Students order and compare numbers including zero
		
		• Students solve addition and subtraction exercises using 0
		
		• Revise the previous work on whole numbers from 0 to 9 through oral questions.
		• Introduce the whole numbers from 10 to 20 using concrete material and addition . Examples:
		    $10 + 1 = 11$ $10 + 3 = 13$
		    $10 + 2 = 12$ $10 + 10 = 20$
		• Students practice writing numbers 0-20
		• Students practice composing a two digit number into tens and ones eg. $17 = 10 + 7$ (use an abacus if available
		• Students to use the symbols " = "," <" or ">" to compare whole numbers up to 20 using the number line and mentally
			• Give exercises for class and home works on use of zero in addition and subtraction.
			• like $5 + 0 = ?$ $5 - 0 = ?$
			
			• Ask students to count and write the numbers up to 20
			• Ask students to write numbers between 10 and 20 as the sum of 10 and a 1-digit number
			• Ask students to put one of the symbols " < ", " > " or "=" between
			• two given whole numbers

• apply place value to numbers up to 20	**3.3 Place value system** *(3 periods)*	• Students group numbers up to 20 in units and tens place in place -value system (use an abacus or make a bundle of 10 sticks and single ones)	• Ask students to tell the place value of a number between 1 and 20

Unit 4: Addition and subtraction up to 20 *(17 periods)*

Unit outcomes: Students will be able to:
- add up to 20
- subtract up to 20
- solve problems of addition and subtraction on whole numbers up to 20.

Competencies	*Contents*	*Teaching and learning activities and resources*	*Assessment Techniques*
Students will be able to: • add using whole numbers up 20 • make number bonds by decomposing one-numbers to 20 • give reasons for ""less than" and "more than" relation by using addition	***4. Addition and subtraction up to 20*** **4.1 Addition up to 20** *(7 periods)*	• Students use concrete objects to extend their ability to add and subtract using numbers up to 20 0000000 0 000000 000000000000 8 + 6 = 14 • Students practice number bonds like. 5 = 3 + 2, 7 = 4 + 3 • Students fill in the arms of a number spider eg 12 + 6 = 18 **18** 6 + 12 = 18 • Ask students to give reason for the less than relation by means of addition 6 < 8 since 8 = 6+2 and 9<13 since 13 = 9 + 3. Use the number line to show this	• Class work and home work on addition of numbers up to 20. • Ask students to decompose numbers up to 10 in different forms and check their work • Observe pupil's reasoning ability

Competencies	*Contents*	*Teaching and learning activities and resources*	*Assessment Techniques*
• subtract using whole numbers up to 22	**4.2 Subtraction up to 20** *(7 periods)*	• Students use concrete objects to extend their ability to subtract using numbers up to 20 • Students fill in the arms of a number spider for subtraction as above • Students practice number bonds for subtraction like • 16 – 4 = 12	• Class work and home work on subtraction of numbers up to 20. • Students in pairs make up spiders for their neighbour for home work
• solve simple addition and subtraction problems on whole numbers up to 20 • make up their own simple problems	**4.3 Problems using addition and subtraction** *(3 periods)*	Students in pairs solve word problems in addition and subtraction like. "I have 15 bananas and am given 2 more. Hew many have I?" • Students solve problems like write the missing numbers in 5 + ? = 12 and 18 - ? = 4 • Students in pairs make up similar problems and ask their neighbour • Students solve simple problems using numbers and symbols eg. Fill in the missing numbers eg 14 + ? = 19 • Students make up similar problems and ask each other	• Ask students to solve and make up problems • Ask students to explain how they are solving the problems

Unit 5: **Measurement using non-formal units** *(9 periods)*

Unit outcomes: Students will be able to:
- explain the need for measuring in everyday life
- use appropriate language to express length, capacity and weigh
- measure and compare length,, capacity and weight using non-standard units.

Competencies	*Contents*	*Teaching and learning activities and resources*	*Assessment Techniques*
Students will be able to: • explain the need to measure • measure length using non-standard units like hand span, foot length, strides or pieces of string • use appropriate ,language to express length • compare lengths using non-standard units	**5. Measurement using non-standard units** **5.1 Measure of length** *(3 periods)*	• Students discuss the need to measure length using examples of its use in their lives • Students compare lengths of different objects eg. pencils or sticks, by laying them side by side and using the correct words eg. longer, shorter • Students compare pictures of items according to length • Students measure items in the classroom and outside in the playground using non-standard measures eg. hand span, stride, string • Give questions about length like "Who is tallest?"	• Ask students to measure and report to the class length of their desk using their hand span • Ask students in pairs to measure the length and breadth of the playground using strides
• measure capacity using non-standard units like cups or bottles • discuss the capacity of different vessels • compare the capacity of different containers	**5.2 Measure capacity** *(3 periods)*	• Ask students to bring to school containers used for liquids • Fill different containers with water and let students to use words like "full", and "empty" to describe them • Students in pairs do experiments comparing the amount of water different containers use like "How many cups will fill a jug and a pail?" and "less than" and "more than"	• Ask students to compare the capacity of different containers and report back
• compare weights of different objects • discuss the weights of different objects	**5.3 Measure weight** **(mass)** *(3 periods)*	• Students compare the weight of different objects on the classroom by holding them using words like "this table is heavier than this chair" and "easier to push than…"	• Ask students to compare the weight of two objects and report back to you

Unit 6: Introduction to fractions *(6 periods)*

Unit outcomes: Students will be able to:
- divide a concrete object into two equal parts and show understanding of the term a "half"
- divide objects into four equal parts and show understanding of the terms quarter and three quarters.

Competencies	*Contents*	*Teaching and learning activities and resources*	*Assessment Techniques*
Students will be able to: • show understanding of halves • illustrate halves of objects • indicate when two parts of a whole are not halves • show understanding of quarters • illustrate one quarter and three quarters • illustrate and report how many halves and how many quarters are in a whole	**6. Introduction to fractions** **6.1 Halves** *(3 periods)* **6.2 Quarters** *(3 periods)*	• Introduce fractions by cutting an orange or other object in two equal parts • Call these parts halves and ask students if they have used this term in their everyday life. • Students half objects eg pieces of paper • Show a piece of paper cut in two parts which are not halves and ask students to explain why they are not halves • Show one quarter and three quarters by drawing or cutting an object • Students quarter objects eg piece of paper • Students in pairs discuss and report how many quarters are in a whole and in a half.	• Ask students to draw two halves of a square. • Ask students to draw and shade in one quarter of a circle and then three quarters of a circle

Unit 7: Multiplication and division by 2 up to 20 *(22 periods)*

Unit outcomes: Students will be able to:
- multiply whole numbers up to 10 by 2 and identify the symbol "x" for multiplication
- divide whole numbers up to 20 by 2 and identify the symbols : for " ÷" division

Competencies	Contents	Teaching and learning activities and resources	Assessment Techniques

Students will be able to:
 	
• identify that multiplication is repeated addition
• use the symbol x for multiplication.
• use the terms "times" "to multiply", "factor" and "product"
• multiply whole numbers up to 10 by 2
• count in 2s up to 20
• identify and use the commutative property of multiplication
• solve problems using multiplication by 2
 	
• identify that division by 2 is sharing into two equal parts
• use the symbol for division and the terms "to divide" and "is divided by"
• identify the relation between multiplication and division by 2
• solve word problems using division by 2
	7. Multiplication and division by 2 up to 20
	7.1 Multiplication of whole numbers up to product 20 by 2 *(10 periods)*
	
	7.2 Division of even numbers up to 20 by 2. *(12 periods)*
		• Introduce multiplication by 2 using concrete sets of objects or pictures of objects with equal elements up to 9 using repeated addition like
		$2 \times 3 =$ ☼☼ / ☼☼ / ☼☼
		     2 + 2 + 2 = 6
		     2 × 3 = 6
		• Students practice multiplication by 2 up to 2 x 10 in pairs using flash cards and repeated addiiton.
		• Introduce the terms "to multiply", "times", "factor" and product", and the symbol "×"
		• Students write out the multiplication table for 2 and read it aloud
		• Using concrete objects students discover the commutative property of multiplication $2 \times 3 = 3 \times 2$
		• Students solve word problems using multiplication by 2 like "I want to give 3 sweets to each of my two brothers. How many sweets do I need?"
		• Introduce the concept of division by 2 by sharing groups of objects with an even number, like. 6 stones, 10 bottle tops, into two equal groups.
		• Students in pairs practice similar tasks.
		• Students do division exercises by 2 using the symbol ÷
		• Students in pairs discuss the relation between multiplication and division by using concrete objects
		• Students use the relation between multiplication and division by 2 to solve problems like
		$3 \times 2 = 6$ also means $6 \div 3 = 2$ and $6 \div 2 = 3$.
		• Students solve problems in division by 2 and make up their own like "I think of a number and multiply it by 2 and the result is 16. What number did I think of?"
			• Ask students to identify the symbol for multiplication.
			• Ask students to read multiplications like $3 \times 2 = 6$
			• Ask Students to say and list all multiples of whole numbers up to 9 by 2.
			
			• Ask students to divide sets having up to 20 elements into two equal sets and tell the number of elements in each set.
			• Students do division exercises for homework
			• Ask students to identify the symbol for division among other symbols.

Unit 8: Lines and simple shapes *(10 periods)*

Unit outcomes: Students will be able to:
- identify and draw straight and curved lines
- identify and draw simple geometric shapes - rectangles, circles, triangles

Competencies	Contents	Teaching and learning activities and resources	Assessment Techniques
Students will be able to: • identify straight and curves lines in their environment • draw straight and curves lines • recognize simple shapes, triangles, rectangles and circles, in their environment	*8.Lines and simple shapes* **8.1 Straight and curved lines** *(4 periods)* **8.2 Simple shapes** *(6 periods)*	• Ask students in pairs to look around themselves and identify straight lines and then curved lines and then report back to the class. • Students draw straight lines and curved lines first using a straight edge or joining dots and then drawing them alone in pencil • Students recognize examples of rectangles, circles and triangles on their everyday life • With their arms and fingers students show these shapes. • Give students dotted outlines to draw round the shapes • Students draw the shapes with the help of real objects such as the edge of a book and a coin • Students in groups cut out given shapes and make pictures with them like a house with squares and triangles • Students draw the shapes free hand in pencil	• Ask students to identify straight and curved lines in their environment • Ask students to draw straight and curved lines • Ask students to sort shapes according to size and shape and name. • Students should draw these shapes in groups • Using the shapes cut out students make pictures

Unit 9: The whole numbers up to 100 *(18 periods)*

Unit outcomes: Students will be able to:
- count in 10s up to100
- add and subtract multiples of 10 which are less than 100.
- read and write whole numbers up to 100
- compare whole numbers up to 100 using the symbols ">", "<" and "="
- identify place value in tens and units.

Competencies	Contents	Teaching and learning activities and resources	Assessment Techniques
Students will be able to: • determine multiples of 10 to 100 • count, read and write multiples of 10 to 100 • decompose multiples of 10 • compare multiples of 10 using "<", ">" and " = " • add and subtract multiples of 10 to 100 • solve problems using multiples of 10	*9. The whole numbers up to 100* **9.1 Multiples of 10 to 100** *(6 periods)*	• Students determine multiples of 10 using bundles of sticks or strips with 10 elements each, introducing multiplication by 10 of the whole numbers from 1 to 10 like using repeated addition • Students chant the multiples of 10 • Students count, read and write multiples of 10 and decompose multiples of 10 eg. 40 = 4 x 10 • Students compare multiples of 10 by giving reason, eg. 70 > 40 since 7 > 4. and 20 < 30, since 20 + 10 = 30 • Students practice adding and subtracting multiples of 10 • Students solve problems using addition and subtraction like Last month there were 30 registered HIV cases in hospital A. This month there are 60 new HIV cases registered. What is the total number of HIV cases on the two months?	• Ask students to list all multiples of 10 which are less than 100. • Students count aloud in multiples of 10 to 100 • Give students pairs of multiples of 10 and ask them to determine the sum and difference • Students compare multiples of 10.
• read number symbols for whole numbers 21 up to 100 • write number symbols for whole numbers up to 100 • decompose 2-digit whole numbers ino multiples of 10 and a 1-digit number	**9.2 The whole numbers from 21 to 100** *(6 periods)*	• Using an abacus or pictures denoting tens and hundreds or strips with 10, 20,..., 90 elements and pictures or strips with less than 10 elements introduce addition of one-digit whole numbers and multiples of 10 like 20 + 3 = 23 • Students read and write 2-digit whole numbers • Students practice decomposing two- digit whole numbers into multiples of 10 and a one digit whole number, like 45 = 40 + 5 = 4 x 10 + 5	• Ask students to read whole numbers up to 90. • Ask students to write some numbers up to 90 and check their calligraphy.
• compare whole numbers up to 100.	**9.3 The order of whole numbers up to 100** *(3periods)*	• Using a chart of numbers up to 100 students compare and order whole numbers up to 100	• Class activities and home works on arrangement of numbers up to 100

Competencies	Contents	Teaching and learning activities and resources	Assessment Techniques
• order whole numbers up to 100 • identify cardinal and ordinal numbers up to 100 • At the end of this sub-unit students should be able to identify place value of each numeral in a 2-digit number.	**9.4 Place value of numbers up to 100** *(3 periods)*	• Students order given whole numbers up to 90. (four to five numbers) • Students determine all whole numbers between two given whole numbers. • Students use ordinal numbers in every day life like 'Ali was fifth in his exam' • Extend knowledge of place value by asking students to write numbers up to 99 as tens and units	sequentially. • Ask students to compare whole numbers up to 100. • Ask students to give the place value for numbers up to 99

Unit 10: Ethiopian currency *(5 Periods)*

Unit outcomes: Students will be able to:
- recognize Ethiopian coins and notes
- tell the relationship between 10 cents and 1birr
- practice using Ethiopian currency for buying and selling

Competencies	*Contents*	*Teaching and learning activities and resources*	*Assessment Techniques*
Students will be able to: • identify different Ethiopian coins • identify different Ethiopian notes.	***10. Ethiopian currency*** **10.1 Ethiopian coins and notes** *(3 periods)*	• Collect coins and notes or use pictures to introduce the different Ethiopian coins (1cent, 5 cents, 10 cents, 25 cents and 50 cents) and notes • Discuss the relationship between birr and 10 cents • Students practice identifying the different coins and notes.	• Show students some "notes" and "coins" of Ethiopian currency and let them identify them 1 birr 10 cent 5 cent
• use the relationship between cents and 1birr • buy and sell using Ethiopian currency in a role play	**10.2 The relationship between cents and birr** *(2 periods)*	• Students show the equivalence of various notes and coins like • Students in groups use role play to practise buying and selling common objects eg. a banana	• Ask students how many 10 cent coins are in 1 birr
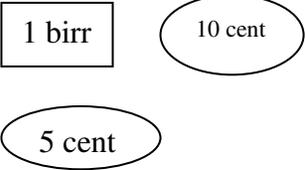
Unit 11: Time *(5 periods)*

Unit outcomes: Students will be able to:

- describe events of their lives according to the time of day- morning, afternoon and evening
- name the days of the week
- tell time in hours from an analogue clock

Competencies	Contents	Teaching and learning activities and resources	Assessment Techniques
Students will be able to: • describe the different times of the day • describe their activities at different times of the day • read the time of the day in hours from an analogue clock	**11. Time** **11.1 Time of the day** *(3 periods)*	• Students describe the different times of the day – morning, afternoon, evening and night. • Students tell the class what they did at certain times of the day illustrate using pictures of going to school, playing games etc • Together sing any songs about time • Using clock faces show different hours of the day • Students draw clock faces showing different hours of the day	• Students show different hours on a clock faces • Students read hours on a clock face.
• name and count the days of the week • describe their activities on different days of the week	**11.2 Days of the week** *(2 periods)*	• Using charts students chant the days of the week • Students describe to the class what they do each day of the week	• Students chant the days of the week

Unit 12: Data Handling and pattern *(5 periods)*

Unit outcomes: Students will be able to:
- record data using simple pictures like the. daily weather
- read data from simple picture graphs
- continue and produce simple patterns of shapes, colours and numbers

Competencies	*Contents*	*Teaching and learning activities and resources*	*Assessment Techniques*
Students will be able to: • use pictures to record every day events • read data from picture graphs • continue patterns of shapes, colours and numbers • produce patterns of shapes	***12. Data handling and simple patterns*** **12.1 Simple picture graphs** *(3 periods)* **12.2 Pattern in mathematics** *(2 periods)*	• Students make simple daily pictures of the weather and put them on the wall each day • Using a simple picture graph ask students to say what it is telling them • Ask students to complete patterns you have prepared like + 0 + 0 … and 1, 0, 0, 1, 0, 0, 1, 0, 0 … • In pairs ask students to play a game making up patterns and asking each other to complete	• Ask students to show a daily happening using pictures • Students to complete a pattern you have prepared