



Teacher's Guide

RESOURCE PACK

Mathematics

For Class I



Teacher's Guide 2022



Division of Syllabus

1 st Term	
Week 1	Unit # 1
Week 2	
Week 3	
Week 4+5+6+7+8	
Week 9	Revision of Unit 1
Week 10+11+12+13+14	Unit # 2
2 nd Term	
Week 1	Unit # 3
Week 2+3	
Week 4	Unit # 4
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Week 6	
Week 7	Revision
Week 8	Unit # 5
Week 9	
Week 10	
Week 11+12+13	Unit# 6
Week 14	Revision



ABOUT THIS RESOURCE PACK

- In this resource pack, the teaching methodologies of all the SLOs have been given.
- Day wise or period wise division has not been given; it must be according to the need of the students and timetable of the school.
- The book has salient features like mental mathematics, values based questions and math lab activities. Spare sufficient time for these activities.
- Try to integrate the topics with the real life i.e. why do we need to learn numbers? Why we need to learn the concept of addition? Why is subtraction needed in real life? Can we observe patterns in our real life?

For the book work:

- Focus on all examples given in the book.
- Always solve few questions on the board by yourself. Then encourage students to solve other questions there.
- For notebooks work, begin by pair work finally ending with individual work. Suppose you have an exercise consisting of 5 questions. Then your strategy should be:

Done by the teacher	Board practice by the students	Pair work	Individual work	Home work
1	2	3	4	5



Unit 1: Whole Numbers

Topic: (Numbers 1-9)

Period required: 2

SLO: Students will be able to identify numbers 1-9

Resources:

- Flash cards of numbers 1-9
- Pencils, Basket, Loose sheet, Markers, Duster, Erasers

Methodology

Recap: Teacher will sing a numbers song with the class.

Oracy: Teacher will share objective of the day with the students.

Routine: Teacher will divide the class into sector specific groups.

LOTS:

- One group will be provided with the pencils and number cards. They will be asked to sort the pencils according to the numbers.
- Second group will be provided with the board markers and dusters. They will be guided draw objects according to the numbers written on the board by the teacher.

HOTS:

- Third group will be provided with loose sheets, pencils and erasers.
- Teacher will guide them to compare and sequence the numbers.
- Each group will present their work in front of the class.
- Groups will be shuffled.
- Each group will get a chance to present each activity.
- Students can write numbers 1 to 9 in notebooks.

Number Line

The children can count individually or in groups.

Ask the children to count from 1–9 orally then draw a number line from 1–9 on the floor. The children can play hopscotch on the number line. Call out instructions like ‘Start from 1 and move 3 steps forward. Which number do you land on?’ They will call out their answers.

Book work: Invite the students to go through the page no. 2 of the book.

**Wrap up:**

- Teacher will show number cards and will ask the students to recognize the numbers.



Concept of 0 (zero)

Period required: 2

SLO: Students will be able to identify 0 as a number and play the game given on page no. 4 of the book.

Resources:

Branches, leaves, paper, cups, Abacus, bowls, candies, number cards, biscuits and balloons

Methodology:**Recap:**

- Teacher will recall the main points of the previous lesson and will ask the students to recall the numbers.

Oracy: Teacher will share objective of the day with the students.

Routine:

- Now teacher will show them 1 biscuit and ask them to count how many biscuits she has. Write their answer, 1, on the board. She will eat the biscuit and then ask them again how many biscuits she has; they should see that she has no biscuits left.
- Show two balloons to the students and ask them to count the balloons; write 2 on the board then ask the students to cover their ears and quickly pop the balloons. Ask them how many balloons you have. Cross out the number 2 and write 0.
- Explain when we have nothing; we use the symbol zero, as you have written on the board. Draw a large 0 on the board and ask the students to say zero.
- Ask the students to trace the number zero (0) in the air, using their whole arm and moving it from the shoulder. Demonstrate this and also select students who do this well to show the action to the class. Repeat the air tracing several times and then use any of the other techniques (sandpaper/velvet/finger paints/mini-whiteboards) for copying the number, and finally ask the students to draw the number on the palm of their hands.



- Teacher will take the students to the garden and will show them different branches with leaves. She will divide the students into groups and will say them to count leaves. (She will guide the students not to pluck the leaves or flowers).
- She will show and give two paper cups to the each group. One cup will be tagged with no. 1 and the other one will be tagged with no. zero.
- She will ask them to collect dry leaves from the ground, count them and put them into the paper cup. Each group will have to collect nine leaves.
- After collecting the leaves for no 9. She will ask the students the collect leaves for no zero (Most probably at this age group students can realize that zero means nothing. For more reinforcement teacher can play a game with the students.
- Make a few cards with 0 written on them. Take a set of 6-8 bowls and arrange them in a line. In a few of them place some candies. The child needs to place the number zero cards in front of the bowls those are empty.

Book work:

- Invite the students to go through the page no. 3 and 4 of the book and work on these pages individually.

Wrap up:

- Teacher will draw few trees with apples on the board. She will invite the students to count the apples and write the number under the tree that has no apples.



Numbers in words

Period required: 3

SLO: Students will be able to read numbers up to 9 in numbers and in words.

Resources

- Flash cards of numbers (0-9)
- Pencils, flip charts, piano, speakers (one – nine)

Methodology

Recap:

- Teacher will ask the students about previous lesson. She will show some flash cards of numbers (0-9) to the students and will ask them to arrange pencils accordingly.



Oracy: Teacher will share objective of the day with the students.

Routine

- Write the word zero on the board and explain that is how 0 is written as a word.
- Now write numbers on the board and write them in words too.
- Ask the students to read the numbers in words after you.
- Draw picture and write numbers 0 to 9 on the board and encourage students to write spellings in front of these numbers.
- Teacher will make pairs of all the students. She will give them flip charts with numbers and their names written on them (One-Nine).
- Teacher will play music or sing numbers' names (One-Nine)
One, Two, Three, Four, Five, Six, Seven, Eight, Nine
- Repetition will be done.
- Teacher will hide flash cards of number names (One-Nine) in the class (before the lesson).
- She will divide the students into group of fours.
- She will give time of one minute to each group to find the cards.
- Winner group will be announced.
- Teacher will make the students to read page no. 5.
- She will ask students to write numbers in words in their notebooks and draw objects accordingly.

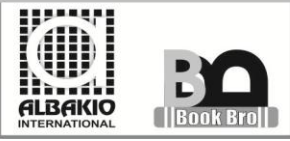
Book work:

- In the next period, she will help them to complete page no. 6 and 7 of the book.
- Page no. 8 will be assigned as homework.

Wrap up:

- Teacher will show flash cards of Number Name randomly to the students and will guided them to read.





Number in words

Period required: 2

SLO: Students will be able to write numbers up to in numerals and in words.

Resources:

- 2 sets of lily pads with number name written on them
- White board, Marker, Duster

Methodology

Recap:

- Teacher will recall the main points of the previous lesson. She will ask the students to sing number names.

Oracy: Teacher will share object of the day with the students.

Routine

Teacher will make the students sit in a circle. Instructions will be given to them.

- She will lay one set of lily pads in the center of the circle.
- She will guide the students about the game.
- She will play the music and one student will walk behind the students in the circle.
- Teacher will stop the music.
- The students will move to the circle and will find the matching lily pad with the number word (name) on it; he or she will jump like a frog and will say the spellings.
- All the students will get their turns and will learn Number Name (words).
- Teacher will guide the students to write numbers in their note books.

Wrap up:

- Teacher will write a number on the board and will ask the students to write number name randomly.

Homework:

- Write down number name (words) from Zero-Nine in notebook.





Number in words

Period required: 1

SLO: Students will be able to count the objects and write their number in words.

Resources: In numerals, stars, white board, marker and duster

Methodology

Recap:

- Teacher will reinforce numbers' names with the students. She will say the words loudly and will ask the students to say with her.

Oracy: Teacher will share objective of the day with the students.

Routine

- Teacher will split the class in half. She will draw score board with the group titles.
- She will ask the number name (words) from one member of each group. She will note the score on the score board.
- (Correct spellings will be entertained with score).
- All the students will get a chance to tell the words.
- Winner group will be rewarded with stars.
- Teacher will guide the students about students will be count the objects and will write the numerals and numbers in words.

Wrap up:

- Teacher will draw few objects on the board and will invite the students to count the objects and write the numerals and number in words.



Count backwards from 9

Period required: 2

SLO: Students will able to count backwards from 9-0

Resources: Sidewalk Chalk, Hopscotch, Finger Puppets.

Methodology:

**Recap:**

- Teacher will recall the main points of the previous lesson. She will ask numbers in words from the students.

Oracy: She will share objective of the day with the students.

Routine:

- Teacher will wear finger puppets. She will ask the students to read the numbers in a sequence. 0-9
- Then she will guide the students to start the numbers from 9-0.
- Teacher will take the students to the yards to play hopscotch.
- Teacher will guide the students to jump on the numbers counting down.
- Students will be guided to count and jump from 9-0.
- Teacher will guide the students about the book work.
- Students will write backward numbers in their notebooks.

Book work: Invite the students to go through page no. 9 of the book.

Wrap up:

- Teacher will ask the students to say the backwards numbers from 9-0 in one breathe.

Homework Write down backwards counting 9-0 in your notebook.



Ascending and Descending order

Period required: 2

SLO: Students will be able to arrange numbers in ascending and descending order from 9-0.

Resources: Flash cards, Number line 9-0

Methodology**Recap:**

Teacher will recall main points of the previous lesson. She will share flash cards of numbers with the students and will ask them to arrange them from 9-0.



Oracy: Teacher will share objective of the day with the students.

Routine:

- Teacher will show number line 0-9 and flash cards 9-0 to the students.
- She will guide the students to read about the numbers from the number lines.
- She will tell them when we go upstairs it is ascending. When we move from upstairs to downstairs it is descending.
- Tell students that ascending order means starting from the smallest and going up to the largest and descending order means starting from the largest and going down to the smallest.

✧ A	✧ 5	✧ 5	✧ ↓
✧ s	✧ 4	✧ 4	✧ D
✧ c	✧ 3	✧ 3	✧ e
✧ e	✧ 2	✧ 2	✧ s
✧ n			✧ c
✧ d			✧ e
✧ i			✧ n
✧ n			✧ d
✧ g			✧ i
✧ ↑	✧ 1	✧ 1	✧ n
			✧ g

- Explain ascending order by drawing a ladder with numbers starting from 1 at the bottom and then going up. Read the numbers aloud in descending order while coming down the ladder in descending order. If stair case is available than this activity can be done practically.
- Now draw two ladders one pointing from down to upward and the other one pointing down word.

Book work: Invite the students to go through page no. 10 and 11 of the book.

Wrap up

- She will give chance to the students to draw number line on the board from 0-9 and 9-0.

Homework

- Write down numbers 0-9 in ascending order.
- Write down numbers 9-0 descending order.





Ascending and descending order

Period required: 1

SLO: Students will be able to arrange the numbers in ascending and descending order.

Resources: Number Cards

Methodology:

Recap:

Teacher will recall the main points of the previous lesson. She will ask the students to recall the numbers from 9-0. (Descending order)

Oracy: Teacher will share objective of the day with the students.

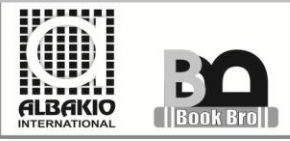
Routine:

- Teacher will divide the class in groups. Number cards will be distributed among the students.
- She will hold a competition among the groups.
- She will write few numbers (random) on the board.
- She will ask the students to arrange the number cards in ascending order within 30 seconds. (From smallest to largest). Next she will ask the students to arrange the number cards in descending order within 30 seconds. (From largest to smallest)
- Winner group will be announced.
- Teacher will guide the students to write numbers in ascending and descending form in their notebooks.

Wrap up:

- Teacher will ask the students about their understanding of ascending and descending numbers.





Before, between and after

Period required: 2

SLO:

- Students will be able to identify which number will come before between and after a given number.

Resources: Sticky notes, board marker, duster

Methodology:

Recap: Teacher will recall the previous lesson.

Oracy: She will share objective of the day with the students.

Routine:

- Teacher will distributed sticky notes among the students.
- She will write two numbers with a gap on the board.
- She will invite the students randomly to write the missing numbers on the sticky note and paste it on the board to fill in the gap. Same process will be done for after and before numbers.
- Students will raise their hands to answer the asked number. They will write that specific number on the sticky note and will paste it on the board.
- Teacher will put a few objects on her table to clarify the concept.

Book work: Invite the students to go through page no. 12 and 13 of the book.

Wrap up: Teacher will ask the students bout after, before and between numbers verbally.



Number up to 100

Topic: Number 10 as a 2- digit number

Period required: 1

SLO: Students will be able to identify 10 as a 2-digit number.

Resources: abacus

**Methodology:****Recap:** Teacher will reinforce numbers 0-9.**Oracy:** Teacher will share objective of the day with the students.**Routine:**

- Teacher will use an abacus to show no 1-9 to the students.
- By using the abacus teacher will introduce the concept of ones and tens.
- She will make it clear to the students that number from 0-9 are ones and numbers from 10-99 are tens.
- She will tell them that 10 is the first 2 digit number.
- She will reinforce the concept.
- She will invite the students turn by turn to display different 2-digit number on the abacus.
- Each student will get a chance.

Book work: Invite the students to go through page no. 14 of the book.**Wrap up:** Teacher will ask the students that how many ones and tens are there in number 10.

Compare and order the numbers 0-10.

Period required: 2**SLO:** Students will be able to compare and order the numbers 0-10.**Resources:** Number stripes.**Methodology:****Recap:** Teacher will reinforce the concept of 2-digit numbers.**Oracy:** Teacher will share objective of the day with the students.**Routine:**

- Teacher will divide the board into two halves; she will draw 3 objects in one half and 5 objects in another half.
- She will ask the class to count the objects.
- She will invite one student to count the object and write the numbers.



- She will invite another student to tell which half has more objects and which has the bigger number.
- She will ensure maximum board practice and introduce the second half of page no. 14
- Teacher will divide the class into pairs or group.
- She will provide number stripe to the groups. Each group will be given different activity.
- One group will be asked to encircle the smaller number in the number strip.
- One group will be asked to encircle the bigger number in the number strip.
- One group will be asked to arrange the number in ascending order.
- One group will be asked to arrange the number in descending order.
- Activities will be shuffled.
- Each group will get a chance to perform each of the activity.

Book work: Invite the students to go through page no. 15 of the book.

Wrap up: Teacher will ask the students about ordering the numbers.



Count and read the number name

Period required: 4

SLO: Students will be able to count and read number name (Ten-Twenty)

Resources:

- Number name cards (Ten-Twenty)
- Number cards (10-20) loose sheets.

Methodology:

Recap: Teacher will recall numbers' names from One-Ten.

Oracy: Teacher will share objective of the day with the students.

Routine:

- Teacher will lay down number cards on the floor and number names cards in front of them. Teacher will jumble them up.
- She will ask the students to jot down the cards in a sequence. Number name should come in front of number card.
- Teacher will spread loose sheets among the students and will ask the students to write the number names in groups by using syllables.



- Teacher will make the students to read aloud the number names.
- She will help the students to read.
- Then in the next periods, she will show them 10 pencils and ask what if we add one more into these?
- She will introduce number 11 in numeral and words and continue till 20.
- Now she will make a group or bundle of 10 pencils and introduce these pencils as 1 Ten. She will tell students that 10 Ones make 1 Ten.
- Now she will ask them what if we add 1 more into 1 Ten. She will continue till 20.
- She will tell them 2 Tens make 20.

Book work:

Invite the students to go through the page no. 16, 17, 18 , 19 and 20 of the book.

Wrap up: Teacher will ask the number names randomly from the students.

Writing and test of number name (One-Twenty) will be given.

Note: 5 to 6 periods can be used in the reinforcement of the concept of before, after and between and in the exercise and the other activities given in the book (page no. 21 to 27).

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Read numbers up to 99

Period required:14

SLO: Students will be able to read numbers up to 99.

Resources:

- Flip charts of numbers 0-99 bowl of number slips. Snake board game flash cards.

Methodology:

Recap: Teacher will reinforce the numbers 0-20 with the students.

Oracy: Teacher will share objective of the day with the students.

**Routine:**

- Teacher will use different strategies to make the students read the numbers.
- Read aloud will be more preferable.

Fish bowl game:

- Teacher will make the students sit in a circle. She will rotate the bowl among the students while the music will be played.
- When the music will be stopped the kid having the bowl will select a slip from the bowl and will read the number written on the slip.

Snake Board Game:

- Snake board game can be drawn on the floor with the help of sidewalk chalk. Students can be motivated to play the game. Teacher will reinforce the place value of random numbers on the board.
- She will introduce number 20 on the board and ask them what if we add one more into it.
- She will continue the same till 50.
- She will introduce the number names too and help students to read these numbers.
- She will help the students to count the beads or blocks according to the numbers to clarify the concept.
- In 3 periods, she will focus numbers from 20 to 50 and help all the students to read and write numbers in numerals and words in their books and notebooks.
- In the next 4 periods, she will help students go through the different exercises given in the book and complete their books till page no. 39.
- In the next three periods, she will work on numbers 50 to 100 and help students read and write these numbers in their notebooks. She will help them to understand that 100 is the first three digit number.
- In the next four periods, she will help them in going through their books from page no. 40 to 49.
- In the next period , she can have a class text.

Wrap up:

- Teacher will show some flash cards of random numbers to the students and will ask them to read the number.

Homework:

- Write down number from 0-50 in your notebook.





Count forward and backward up to 100

Period required: 2

SLO: Students will be able to count numbers forward and backward up to 100

Resources: Flash cards flip charts of blocks, markers .pencils.

Methodology

Recap:

Teacher will paste two flash cards on the board with the heading of ones and tens. She will call the students randomly to the board and will ask the students to write two digit numbers under the headings accordingly. She will focus on the slow learners and give chance to them to perform the activity.

Oracy: Teacher will share objective of the day with the students.

Routine:

- Teacher will divide the class into groups. She will share a flip chart of block with the students.
- She will share arrange of numbers with the groups and will guide them to write the numbers backward on the flip chart.
- She will invite the group later to present their work in front of the whole class.
- She will exchange the flip chart and will guide them for peer checking.
- She will ask the students to write backward counting from 100-0 in their notebooks.

Book work:

- Invite the students to go through the page no 50 of the book.

Wrap up:

- Teacher will ask the students to say the numbers loudly.

Homework:

- Write down backward counting from 100-0 in your notebook.





Identify the position of objects using ordinal numbers such as first, second, tenth including representations 1st, 2nd... 10th through pictures.

Period required: 3

SLO: Students will be able to identify the position of objects using ordinal numbers.

Resources: Flash cards of ordinal numbers (first to tenth)

Methodology:

Recap:

- Teacher will ask the position holder students to stand in a line according to their position in a line.
- Teacher will reinforce the concept of position word. She will make it clear to the students that position words called ordinal numbers.

Oracy: Teacher will share objective of the day with the students.

Routine:

- Teachers will make ten students stands in a line according to their highs.
- She will select some of the students to read the flash counts loudly in front of the other class mates.
- She will invite some students to distribute flash cards among the students standing in a queue according to their heights.
- Next she will distribute flash cards of ordinal numbers among the students. She will guide the students that when the teacher will call a number the student with the specific card will step forward.
- She will manage different objects in a line.
- She will ask the position of different objects from the students.
- In this way reinforcement will be done to clear the concept.
- Teacher will say the spellings of ordinal numbers loudly in the class and will guide the students to learn them by heart. If students have strong grip on phonics then they will be guided to spell the words through digraphs.

Calendar Activity:

- Show students a calendar and explain that it shows the months of the year.
- Show the first page and ask students to say, 'The first month of the year is January.'



- Introduce all the months in the same way; each time, pupils should repeat,
 - “The second month of the year is February.
 - “The third month of the year is March.
 - “The fourth month of the year is April.
 - “The fifth month of the year is May.
 - “The sixth month of the year is June.
 - “The seventh month of the year is July.
 - “The eighth month of the year is August.
 - “The ninth month of the year is September.
 - “The tenth month of the year is October.
 - “The eleventh month of the year is November.
 - “The twelfth month of the year is December.
- Mix the cards and place these on the table and let the students sort these cards according to the sequence of months.

Race:

- Carry out this activity in the corridor, or on the school field, or running track. Mark start and finishing lines and ask students to race against each other to see who is the fastest.
- Say ‘Go’ to start the race and give the first 10 pupils to finish ordinal number cards corresponding to their positions. As each pupil finishes, say, e.g. ‘Congratulations! You are first!’ and hand him/her the card that says ‘1st’. In the same way, give the cards to each student according to their positions.
- Ask students to stand in a line in order from 1st to 10th and hold up their ordinal number cards.
- Point to each student in turn and ask the students to repeat the ordinal numbers 1st to 10th.

Pick the object:

- Ask students to form 2 groups of 10 and stand in 2 rows of 10 on either side of the room, facing each other. Tell them who is 1st who is 10th in line and ask them to call out their positions in the line in order from 1st to 10th.
- Place an object between the 2 rows of students.
- When the students are ready, call out a position and the students in that position should run forward to pick the ‘object’.
- The student who steals the ‘object’ and run back to his group scores a point for the group.
- The group with the most points at the end of the game wins.

Classification

- Show students flashcards of different sets of objects and ask them to identify and count the objects, e.g. 5 cakes, 7 shoes, etc.



- Show the students how to arrange them in order from 1st to 5th, starting with the largest set, e.g. 10 items, 8 items 7 items, 5 items 2 items.
- Write above each flashcard 1st, 2nd, 3rd, 4th, 5th respectively.

Book work:

- Invite the students to go through page no. 51 to 55 of the book.
- She will also help them in writing ordinal numbers in their notebooks.

Wrap up: Teacher will ask the class to say the ordinal numbers loudly.



Recognize the place value of a specific digit in a 2-digit numbers

Period required : 1

SLO: Students will be able to recognize the place value of a specific digit in a 2-digit number. (Tens and once)

Resources: Crayons (pencils) Abacus

Methodology:

Recap: Teacher will reinforce the concept of tens and ones.

Oracy: Teacher will share objective of the day with the students.

Routine:

- Teacher will make sets of pencils or crayons and will elicit the students that one set contains 10 pencils. One set is equal to one tens.
- Teacher will make different sets of 10 pencils or crayons. She will encourage the students to count the sets in tens.
- She will lay some extra pencils as well and will ask the students to count extra pencils as ones.
- Teacher will ask the students to make sets of pencils and crayons to elicit ones and tens that teacher will ask.
- Teacher will call the students to the board and will ask them to label the written numbers with ones and tens.



- Teacher will ask the students about tens and ones. She will ask how many tens and ones are there in the asked numbers. She will do more practice to clear the concept.
- Teacher will tell the students about the use of Abacus and counters. She will lay the beads of spike abacus and ask the corresponding number.
- She will call the students turn by turn to lay the (counters) beads according to the asked number.
- She will ask the class to count the beads (counters) of spike abacus to elicit the tens and ones.

Wrap up:

- Teacher will ask the students that how many ones will make one ten.
 - How many tens and ones will make 92?
 - How many tens and ones will make 78?
 - How many tens and ones will make 35?
 - How many tens and ones are there in 83?
 - How many tens and ones are there in 69?
 - How many tens and ones are there in 40?



Compare two or more group of objects in terms of numbers.

Period required: 1

SLO: Students will be able to compare two or more groups of objects in terms of numbers.

Resources: Pictures of different objects, pencils

Methodology:

Recap: Teacher will recall the ordinal numbers with the whole class.

Oracy: Teacher will share objective of the day.

Routine:

- Teacher will share picture of different objects to the students and will ask them to count the objects.
- Teacher will divide the class into groups.

- Teacher will share pencils with the students and will ask them to count the pencils in groups.
- Teacher will explain to the students. She will guide the students to compare the numbers from smallest to largest.

Book work:

- Invite the students to go through page no. 56 of the book.

Wrap up:

- Teacher will write two numbers on the board and will ask the students to compare and order the numbers from smallest to largest.

Note: the teacher will use at least three periods to complete the exercises given in the chapter.



Unit 2: Addition

Period required: 19

SLO: Students will be able to:

- Add the numbers.
- 2 digit numbers to 1 digit number.

Resources: Candies, pencils, beads, vocabulary flash cards.

Methodology:

Recap: Teacher will reinforce the concept of big and small.

Oracy: Teacher will share objective of the day.

Routine:

- Teacher will distribute candies among different kids. She will distribute different numbers of candies now she will ask the students to compare the number of candies. (More than less)
- She will make it clear to students that 19 are more than 16 similarly 22 is less than 34.
- Now she will distribute candies among two students and will ask the rest of the students to count the candies altogether.
- She will guide the students distribute candies among them to make sets with the candies.
- She will count the sets altogether. In this way she will guide the students to do addition of 2-digit numbers.
- She will invest at least 2 periods in board practice.
- Next she will invite them for different activities to clarify the concept and consume 4 to 5 periods in these activities.

Activities:

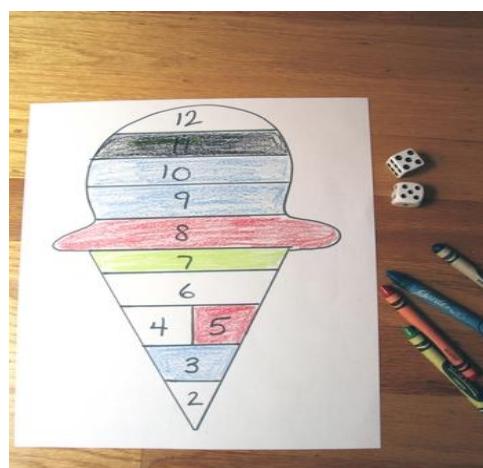
Add up:

- Place two pencils on one side of a table and 3 pencils on the other side of the table.
- Call out a student him/her to count pencils on the both sides.
- Ask him \ her to put all pencils in the center of table.
- Repeat this with different objects and clarify to students that bringing pencils together is called “**Addition**”.

- Elaborate by giving more examples.

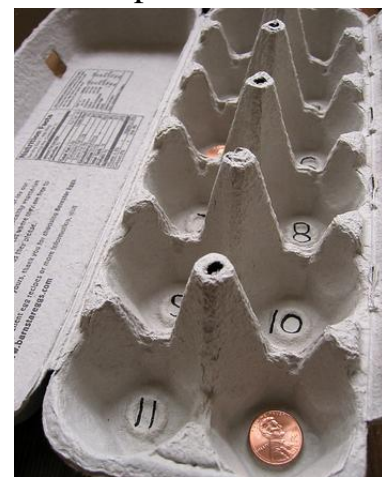
Ice Cream Trick:

- Print enough copies of the Ice Cream Worksheet so that every player has one.
- Determine who goes first. The first player will roll the dice. On a blank sheet of paper, the player will then write the addition problem out using the numbers he rolled as the addends. If he rolled a 3 and 4, for instance, he would write the problem this way: $3 + 4 = 7$.
- The first player will then color the sum on the ice cream cone.
 - In the example $3 + 4 = 7$, 7 is the sum and would be colored on the cone.
- The next player rolls the dice to determine his addends, writes the addition problem, and colors in his sum.
- Continue playing with each player taking turns. If someone rolls a sum that is already colored on his sheet, he loses that turn. Try to use the math vocabulary as you play this game and see how quickly you learn these new words.
- The first player to sum up all his problems and color in his entire ice cream cone wins the game!



Play Egg Carton Addition:

- Use your marker to put a number in the bottom of each egg cup in the carton. (If you have a math beginner, start by cutting your carton in half, so you only have six cups; if you've got a kid who's surging ahead, go ahead and use all twelve!)
- Put a bowl of game tokens (pennies, marbles or beans) in the center of your table or play area and place two pieces into the egg carton.
- Each player takes turns shaking the carton and then writing an addition problem on their paper using the two number sections the pieces landed in. Let's say, for example, that the two pieces landed in 4 and 6. The addition problem would then be $4+6$.
- The person with the highest sum after each player has had a turn would then take a token from the bowl in the center of the table. If a wrong answer is given, a token is returned to the bowl. In case of a tie, each child takes a token.
- Continue playing until each player has collected five tokens. Do this a few times, and be prepared to see steady gains in your young mathematician's adding confidence!



Sums of 10:

- Place cards face down on a flat surface in a 4 x 10 array.
- Turn over 3 cards and place it face up.
- Scan the board for cards that add up to 10. Remove these cards, or card combinations, and place them in a discard pile.
- If there are no cards or combinations that add up to ten, flip over an additional card and see if there are any combinations of ten now.
- Keep flipping over cards until you can find a combination that adds up to ten.
- Remove cards until you can't find any more combinations. If you want, you can replenish the array with cards from the discard pile throughout the game.



Roll the Dice:

- Decide who will go first. The first player should roll all 6 dice. Each player should add up the total from their roll and record it.
- The player with the highest sum from round 1 earns 3 points. The player with the second highest sum earns 2 points. The rest of the players receive 1 point.
- Play continues for 10 rounds, or decides on a time limit.
- After the game is finished, have the players add up their scores.
- The player with the highest sum wins.
- In the next four periods, teacher will help students to go through page no. 64 to 70 one by one. She will focus on board practice, book work and notebook practice.
- In the next period, she will manage a text.
- In the next 3 periods, she will guide the students to add 2-digit number into 1-digit number by using ones and tens.



Tens	ones	Tens	ones
1	9	2	7
+	6	+	3
_____		_____	
_____		_____	

She will guide the students that ones will be added to ones and tens will be added to tens she will share vocabulary of Addition with the students by displaying flash cards in the class she will help students to practice the method horizontally and vertically. She will focus on maximum board practice and notebook work.

Book work:

In the next three periods, she will invite students to open their books and go through page no. 71 to 76 one by one.

Note for the teacher:

Focus on all examples given in the book.

Always solve few questions on the board by yourself. Then encourage students to solve other questions there.

For notebooks work, begin by pair work finally ending with individual work. Suppose you have an exercise consisting of 5 questions. Each question further consists of 5 parts then your strategy should be

Done by the teacher	Board practice by the students	Pair work	Individual work	Home work
1	2	3	4	5

Wrap up

- Teacher will guide the students to add mentally as well.
- In the next period, teacher will arrange a test.



Subtraction

Period required: 16

SLO: Students will be able to subtract two digit numbers.

Resources: Leaves, pencils, beads.

Methodology:

Recap: Teacher will do mental math with the class. She will ask the students to add two digit numbers mentally.

Oracy: Teacher will share objective of the day with the class.

Routine:

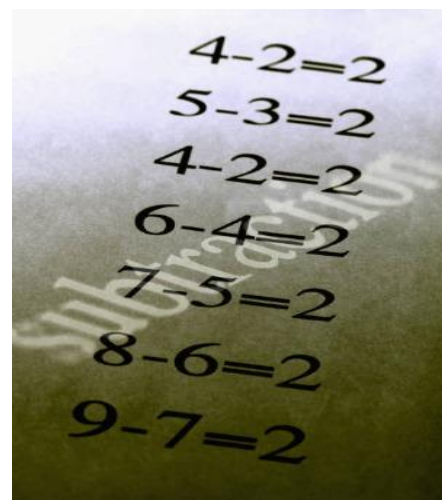
- Teacher will divide the class into pairs she will distribute pencils, leaves or beads among the students.
- She will guide them to make sets of different numbers.
- She will elicit the comparison.
- She will show it to the students that some sets have more objects and some have fewer objects.
- She will guide them to find the different of no of objects in two sets.
- She will share vocabulary for subtraction with the students by displaying the flash cards on the board.
- She will make the students to read those flash cards.
- She will guide the students to take out the smaller number from the bigger number.
- She will display different objects in front of the students.
- She will make sets with the tags of a and b.
- She will ask the students that how many more objects are there in set b than set a.
- She will guide the students to subtract horizon ally and vertically.
- She will also teach them that while subtracting the smaller number from the bigger number students should strict subtracting from ones.
- Teacher will guide the students to use the Number Line to subtract the numbers.
- She will ensure maximum board practice in three periods.
- Next she will engage them in human number line.

Human Number Line:

- Get kids up and moving with the human number line math game.
- Play subtraction bowling. Set up 10 bowling pins (or cups) and use a ball to knock some down. Record subtraction equations to represent what is left standing
- Toss Them!
- Give each child 10 two-colored counters, and tell them to toss them on the table. If the counters show 6 white and 4 red, show how to make a subtraction sentence: " $10-6=4$ ". Ask kids if there is another subtraction sentence they can make with those counters (" $10-4=6$ "). Have kids toss and write several different subtraction facts. If 10 counters feel too easy, give more counters for kids to work with.
- Next she will engage them in another activity.

Clothespin Drop:

- Give a child 10 clothespin.
- Put a small, sturdy bowl on the floor. Tell the child to try to drop the clothespins into the bowl. Some will go in and some will fall out.
- Have kids make a subtraction sentence to say how many they got in the bowl. Example: 10 dropped, minus 6 on the floor, equal 4 in the bowl.
- When the child has worked out a subtraction sentence, write this down and sum it up in a story problem: "Mayra dropped 10 clothespins. 6 fell on the floor.
- She got 4 inside the bowl. 10 minus 6 equals to 4."
- After doing this several times, invite kids to say the story and the math problem with you.
- Next she will engage students in edible subtraction stories.



Edible Subtraction Stories:

- Give kids 10 or 20 edible items that can be counted: Cheerios, grapes etc.
- Make up a subtraction food story and have your child act it out. "Ali had 10 Cheerios. He ate 3 Cheerios. How many were left?" Have your child tell you the answer, then say or write the subtraction problem: "10-3=7". (My favorite subtraction story problems go like this: "Manzar had 10 chocolate chips. She gave 5 to Miss Saba. How many were left?") Kids love edible subtraction!
- Teacher will invite students to go through page no. 77 to 86 one by one in five periods.
- Teacher will guide the students to solve book pages.
- She will spend the remaining periods in completing revision exercise and doing activities given in the book.
- She must use 1 period in taking the test .

Note for the teacher:

- Focus on all examples given in the book.
- Always solve few questions on the board by yourself. Then encourage students to solve other questions there.

- For notebooks work, begin by pair work finally ending with individual work. Suppose you have an exercise consisting of 5 questions. Each question further consists of 5 parts then your strategy should be

Done by the teacher	Board practice by the students	Pair work	Individual work	Home work
1	2	3	4	5

Wrap up:

- Teacher will call the students to the board randomly. She will write different statements on the board and will invite the students to solve them.





Unit 3: Measurement Length

Period required: 7 to 9

SLO: Students will be able to compare the heights/lengths of two or more objects.

Resources: Flash cards of vocabulary , kids and trees, pencils.

Methodology:

Recap: Teacher will call the main chunks of previous lesson.

Oracy: Teacher will share objective of the day.

Routine:

- Teacher will call three students of different heights in front of the whole class and will ask the rest of the class about the tallest , taller and the tall one.
- She will clear the concept of students about the vocabulary tallest, taller and tall.
- She will take the students to the ground to show them trees or plants of different heights.
- She will show three pencils of different lengths to the class and will ask them about their length.
- Teacher will guide the students that for the length of the objects in horizontal position we use long, longer, longest and for the objects in vertical position we have to use tall, taller, and tallest.
- Tell students that you have a problem: The pencils in the classroom are getting shorter and shorter!
- Take out a short pencil. Now take out a brand new pencil. Say, “Look how much shorter this old pencil is than the new pencil!”
- Have students guess how much shorter the little pencil is than the big pencil. Record answers on the board.

Let’s Start Measuring:

- Say, “Let’s see how much longer the bigger pencil is than the shorter pencil.” Take out a ruler and model how to measure the bigger pencil, explaining how you put the end of the pencil at the beginning of the ruler. Measure the pencils and write their lengths on the board.
- Say, “To figure out how much longer the bigger pencil is than the shorter pencil, we need to subtract.” Show students how to subtract to find the difference between the pencils.



- Tell students to go get two objects in the classroom. Have them work in pairs to measure the lengths of both objects and figure out the difference.
- The pairs of students should write a number sentence to demonstrate the subtraction they did to figure out the difference in the lengths of their objects.
- If pairs finish ahead of time, challenge them to repeat this activity with two new objects.

Guess It: Place three bottles before them and ask them to arrange these according to the size.

Do It: Ask the students to stand according to their height.

Book work: Invite the students to go through page no. 92 to 95 of the book.

Wrap up: She will select some of the slow learners and will guide them to label the objects of different heights by using flash cards of vocabulary.

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Comparison (weight)

Period required: 6

SLO: Students will be able to compare the weight of two or more objects.

Resources: Different objects with different mass or weights.

Methodology:

Recap: Teacher will ask the students about the length of different object.

Oracy: Teacher will share objective of the day with the students.

Routine:

- Teacher will show three different objects with different weight to the class.
- She will invite the students to estimate the weight of the objects and compare the objects by heavy heavier or heaviest.
- She will prefer to use daily routine objects to show compare to the class.
- She will explain the concept through book page.
- She will take the students to the ground and will put two different objects on the see saw.
- She will ask the students about the heavy/light or heavier/lighter object from the students.



- She will emphasis on the correct use of vocabulary.
- She will invite them for different activities.

Hold and Raise:

- Ask students to hold and pencil and raise it. Then ask them to hold a table and raise it up. Explain the table has more might, so it cannot be revised easily.
- Draw a T.Chart on the board and ask students to name heavy and light objects.

Heavy	Light

Book work: Invite the students to go through page no. 96 to 98 of the book.

Wrap up: Teacher will reinforce the vocabulary.



Note: Teacher will use 3 to 4 periods for the revision exercise and the other activities given in the book.

Unit 4: Money

Period required: 18

SLO

- Students will be able to recognize Pakistani currency notes and coins.
- They will be able to add different combinations of coins/notes to make sum of required amount.

Resources: Pakistani currency notes coins.

Methodology:

Recap: Teacher will call the main chunks of previous lesson.

Oracy: Teacher will share objective of the day.

Routine:

- Teacher will show different currency notes and coins to the students.
- She will ask the students to recognize them as well.
- She will help them to go through page no. 105 and 106 of the book.
- She will encourage them to check if their friends can recognize coins and notes.
- In the next periods, teacher will ask the students if they have pocket money with them.
- She will ask them that what they want to purchase with that amount.
- How much they will spend on which thing?
- How much they will get back from the shop keeper?
- How many coins of RS 2 will make RS 12?
- How many coins of RS 5 will make RS 25?
- (Teacher will provide coins to students to sum up practically)
- How many notes of RS 10 will make RS 50?
- How many notes of RS 20 will make RS 80?
- She will help them to go through page no. 107 and 108 of the book.
- In the next periods, teacher will help the students to sum up different currency notes and coins together.
- She will ask them to go through page no. 109 and 110 of the book.
- In the next periods, she will invite them for activity.

Buy and Sell:

- Show the students how to pay for an item by laying out the notes and coins. Also show how to use groups of money equal to another group using different coins and notes.
- Arrange different toys and objects. Label them with price tags and introduce the concept of selecting the correct combination of notes or coins to pay for an item. Students should practice the same.
- Students should do a role play of shopkeeper and customer and use fake money for buying and selling. They can talk about the amount of money they have, the amount used for purchasing and the amount of money left.

Book work: Invite the students to go through page no. 111 of the book.

Wrap up: She will show different sets of money to students and will ask them about which combination is greater.



Note: She will use 3 to 4 periods for revision exercise and other activities given in the book.

Unit 5: Time

SLO: Students will be able to read and recognize they will be able to name the days of the week in order.

- They will be able to name (orally) the solar months of the year.
- They will be able to name Islamic months of the year.

Resources: Picture of parts of the day loose sheets clock flow chart of days of the week.

Methodology:

Recap:

- Teacher will discuss about the daily routine of the kids with them.
- She will take their feedback through discussion.

Oracy: Teacher will share objective of the day with the class.

Routine:

- Teacher will have a question/session with the students.
- In which part of the day we take our breakfast?
- In which part of the day we take our lunch?
- In which part of the day we come back home from school?
- In which part of the day we usually play?
- In which part of the day we go to bed?
- Teacher will share pictures of parts of the day (with the labels) to the students.
- She will divide the class into groups.
- She will provide loose sheets to them.
- She will instruct the students' groups to draw different parts of the day and label them.
- She will invite them to go through page no. 117, 118 and 119 of the book.

In the next periods:

- Teacher will show a clock to the students.
- Teacher will explain the parts of a clock to the students.
- She will tell to the students about the difference between analog and digital clock and show these clocks to them.
- She will explain about the hands of a clock.
- The longer hand is of minutes.

- The shorter hand is of hours.
- She will set the clock on hours to show O' clock.
- She will invite the students to set the hands of a clock to show O' clock.
- She will set the clock (hourly clock) and will ask the students about the time randomly.
- She will read with the students.
- She will invite them to go through page no. 120 to 123 of the book.
- In the next period , teacher will engage students in doing the activity given on page no. 124 or in

Clock Making:

Start by making a small hole in the center (With a plate, you can use scissors. With a frisbee, you'll need to use a drill). Let your child know he's going to make his very own clock and that the frisbee or paper plate will serve as the clock face. If you have an analog watch or clock somewhere in the house, bring it to the table to use as a model.

Ask your child to place one sticker at the top of the "clock face" and one directly opposite, on the bottom. With the marker, have him write the number 12 on the top sticker and the number 6 on the bottom sticker. Now ask him to place one sticker on each side, halfway in between the top and bottom. He should write 3 on the right-hand sticker, and 9 on the left-hand sticker. Then, referring your analog clock as a model, ask him to fill in the other numbers on the clock using the stickers and his marker.



Now it's time for the clock hands! Using the poster board, cut two arrows—a longer one for the minute hand, and a shorter one for the hour hand. Pierce the ends of the arrows with the paper fastener, slide it through the hole in the center of your clock face, and secure it at the back.

Pick a day of the week and, with your child's help, create a list of his activities. This might include soccer practice, a Quran lesson, going to school, , a shopping trip with grandma...or just time spent eating a snack. Next to each entry, write the time the activity begins, rounding to the nearest half hour.

Make it concrete! Help your child identify the hour hand and the minute hand on the clock face. Remind her that the hour hand shows the hour and the minute hand shows the minutes. Now, make sure she knows which hand of the clock is longer (the minute hand) and which hand of the clock is shorter (the hour hand). Pick an activity and find its time on the clock. Start with the activities that begin on the hour and then move to the activities that are on the half hour.

If your child is having trouble, move the hands around the clock, naming each hour as you go. Then give your kid a go at it. Not quite there yet? Don't worry. Telling time always becomes easier with practice...and time of course!

Days of the week

- In the next periods, teacher will sing days of the week song.
- She will explain to the students about the order of days of the week with the helps a flow chart.
- She will help the students to read and do page no. 125.
- She will help students writing names of the week in the notebook.

Months

- Same strategies can be applied to teach months of the year and Islamic months of the year in the next periods.
- Teacher will help the students in writing the names of the months in their notebooks and going through page no. 126 of the book.

Wrap up: Encourage the students to share their learning.



Unit 6: Geometry

Two Dimensional Shapes

Period required: 4

SLO: Students will be able to recognize and identify shapes of similar objects in the daily life.

- They will be able to identify the basic shapes.
- Match similar basic shapes in daily life.
- Distinguish basic shapes by considering their sides.
- Classify 2-D shapes according to number of sides and corners.

Resources: Shapes (model) sticky notes cut out of action table.

Methodology:

Recap: Teacher will reinforce the names of basic shapes rectangle square circle triangle.

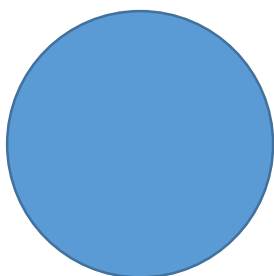
Oracy: Teacher will share objective of the day with the students.

Routine:

- Teacher will take the students out of the class to take a round of the school to identify the objects with the similar shapes.
- She will guide the students to do it individually.
- She will focus on the sides/corners of the shapes.
- Teacher will distribute sticky notes among the students and will ask them to draw the basic shapes and label the corners.
- Teacher will recall the sides of basic shapes.
- How many corners a triangle has?
- How many corners a square has?
- How many corners a rectangle has?
- How many corners a circle has?
- She will ask the students to observe the sizes of the shapes they have drawn on sticky notes.
- She will guide them to find the different in sizes in pairs.
- She will explain to the students and will guide them to do it.

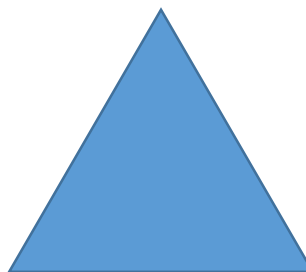
Sing the Songs:

- The teacher should provide students with four basic shape cut-outs and should sing this shape song (to the tune of: 'Frere Jacques'). Students have to learn and follow.
- *This is a square. This is a square.*
- *How can you tell? How can you tell?*
- *It has four sides,*
- *All the same size.*
- *It's a square. It's a square.*



- *This is a circle. This is a circle.*
- *How can you tell? How can you tell?*
- *It goes round and round,*
- *No end can be found.*
- *It's a circle. It's a circle.*

- *This is a triangle. This is a triangle.*
- *How can you tell? How can you tell?*
- *It only has three sides,*
- *That joins to make three points.*
- *It's a triangle. It's a triangle.*



- *This is a rectangle. This is a rectangle.*
- *How can you tell? How can you tell?*
- *It has two short sides,*
- *And it has two long sides.*
- *It's a rectangle. It's a rectangle.*
- *Teacher will invite students for activities.*

Activities:

Let us Walk:

- Make huge shapes in the form of a path on the floor with a chalk. Play music and ask students to walk on these. When the music stops they have to identify the name of the 2D shape they are standing on.

Play the Shape Twister Game:

- Set the stage. Explain that this is a fun game using colors and shapes, while following a set of directions that can be a little tricky. Let your child know you consider this a challenge—but one that she can also do well.
- Make the game. Have your child use crayons or markers to draw 2 of each of the following shapes: square, rectangle, triangle, diamond, circle, & star. Make them fairly large—at least 6-8” across, and use plenty of different colours of paper. Then lay them in rows on the floor.
- Make directions. Ask your child to create a list of directions. Either you or he can write them on a sheet of lined paper. Examples: "Place your right hand on the _____." "Place your left hand on the _____." "Place your right foot on the _____." "Place your left foot on the _____." "Move your right hand and place it on the _____."
- Help students go through the book upto page no. 134.
- In the next periods, make a spinner. Help your child use crayons and construction paper to create a paper spinner showing each of the coloured shapes they have created. Draw a circle on white paper, and divide it into sections using a pencil. Have your child colour each section with one colour crayon. Have your child draw a picture on each colored section to match the shapes they created. Then cut out an arrow from another piece of construction paper, cut it to fit the spinner circle, and fasten it at the center with the paper fastener.
- Play! Help your child play the game by reading a direction from their list. Then spin the spinner to determine which coloured shape they will land on. Continue until they have identified all of the colours and shapes.
- Teacher will lay the cut outs in a sequence on action table.
- She will invite different students to make the same pattern with the cut outs.
- She will also ask them to extend the pattern.
- She will give turn to each student.
- Bring real-life objects for example shirts, purses, gift papers etc. with a definite pattern in them, encourage students to identify the pattern in i.e. red stripe, blue stripe, red stripe, and so on.



- The teacher should divide a soft board into four sections, one for each season. Provide pictures related to these seasons and let children sort and decorate the board. Talk about how the four seasons come in an order and make a pattern. Have a brainstorming session and talk about what other things around us has a pattern, for example days of week, lines in a poem etc.
- The teacher should use objects related to the four seasons for example, buttons, bottle caps, plastic wooden shapes and make a pattern using them. The students should identify the single unit of that pattern for example, a red triangle, a green triangle (initially change only one category, for example the colour, then gradually two or more categories can be changed including the shape, size, type of the object).
- The teacher should design a pattern and students should follow it.
- Help students going through page no. 135 of the book.

Wrap up:

- Teacher will make the class to read the name of the shapes loudly and to learn the spellings by heart.

Homework:

- Students should be given pictures to make from 2D shapes. They have to count and write how many shapes they have used.
- Students should use plastic 2D shapes (wooden, plastic, paper) to make things for example a man, a flower, etc. They should identify the shapes used along with the numbers used.
- Children should be given play dough, laces / rope / ribbon to make 2D shapes and then describe them.



Position

Period required: 2

SLO: Students will be able to recognize and identify the position of different objects.

- They will be able to use the following position words.
- Outside or inside
- Above or below
- Over and under

- Far and near

Resources: Pictures and flash cards of position words.

Oracy:

- Teacher will share objective of the day with the students.
- Teacher will reinforce the word position.

Methodology:

Recap: Teacher will ask them about the previous day work.

Routine:

- Teacher will share flash cards of position words with the students.
- Teacher will invite different students to show the actions to show the position.
- (Students can hide under the table to show the position of under students can show the position of inside and outside by sitting in the class and by going out of the class).

Where is it?

- Display a variety of shapes (triangle, square, rectangle, and circle) on your white board or chart paper using pre-cut paper shapes.
- Review each shape by pointing to it and asking your students to identify it by name. Then help your students describe the shapes' attributes (ex. A triangle always has three sides and three corners).
- Explain that the class is going to practice finding shapes in the classroom and describing the position of the shapes using special math terms, called positional words.
- Positional words are words like "behind," "next to," or "in front of," and they help us tell someone where something is located.
- Place your triangle in the middle of the board or chart paper. Then place your circle next to the triangle.
- Say, "I put the circle next to the triangle. Can someone show me where I should put the square if it is above the circle?"
- Provide time for students to come up to the board and assist you in placing the shapes.
- Continue to use your pre-cut shapes to practice positional words with your students by asking them questions and having them place or point to the correct location of a given shape.

Hide and Seek

- Play the game and ask the children their position where they were hidden.
- The teacher should give instructions and ask children to place different objects or to move themselves at positions.

Draw it:

- The teacher should draw a scene on the board. Students should be asked to draw objects at different positions according to instructions or let them work on their own. They should then describe the position of the drawn objects.

Wrap up

- Teacher will show pictures of different objects with different position and will ask the students to describe the picture focus will be on the use of position words.



Note: Teacher will use next 3 periods for revision exercise and the activities given in the book.