Subject : Mathematics	Level-A1	Class- II	Shapes and Lines Lesson-1 What is long, what is round Lesson-6 Footprints Lesson-11 Lines and Lines Worksheet- 1

Skill /Competency/Concept	Target Learning Outcomes	Suggested strategies
• Knowledge • Understanding • Ability to compute • Problem Solving Ability	• Understands and explores the way different objects in their surroundings, move when placed on a ramp. They will understand that the shape of an object affects whether it will roll or slide or can do both. • Observes, identifies, sorts and classifies the objects that can roll, slide or can both roll and slide. • Shows understanding of 2-D and 3-D shapes on the basis of their sides, corners, diagonals, straight and curved edges, etc. and differentiates between them. Observes top view, side view and front view of the objects and learns how objects look different from different sides. • Understands the concept of slanting, sleeping, standing and curved lines, classifies them, gives examples and draws free hand drawings using them.	• Experimentation method • Hand-on Activity method • Activity method • Demonstration method • Role play method • Play way method • Individual Task • Group Task

Sample Activity – 1	TLO: Understands, explores and classify the way different objects, in their surrounding, move when placed on a ramp.

Experiment – Explore rolling or sliding of objects on a ramp.

Here a teacher has to provide a long piece of cardboard to every child and a support object to prop up the ramp. Small objects like ball, toy car, pencil, eraser, beads, building block, coins, bottle caps, crayons, etc. to place on the ramp are given to each child.

The students will first guess that a particular object will roll or slide or will roll and slide both. Then will do this hand -on activity/experiment and find out whether their guess is right or not. Afterwards they will record their findings.

| S.No.	Name of the object	Guess: will roll/will slide/will do both	Actual finding: Rolls/ Slides/ Rolls and Slides both
1	ball		
2	sharpener		
3	coin		

Sample Activity – 2	TLO: Shows understanding of 2-D and 3-D shapes on the basis of their sides, corners, diagonals, straight and curved edges, etc. and differentiates between them.

Hands-on Activity - Observe the strength of paper rolls/ pillars (cylinders)

Here, the teacher will make six paper rolls using calendar paper/ postcard paper or ivory paper with the help of the children. Then they are arranged in rows of 2. A small wooden block will be placed over it. And then one of the students will stand on it. They will observe that the child does not fall, instead the paper rolls/pillars support his weight. In this way, children learn about the cylindrical pillars of a bridge.

Suggested Activities:

1. Make stacks/ towers/buildings using different things like cans, match boxes, building blocks, flat stones, rounded stones, coins, erasers, balls, etc. This activity will help in learning that objects with broader base and flat surfaces are more stable and suitable for building stacks/towers.

2. On a geo board, children can make different shapes like square, triangle, circle, etc. using rubber bands. They can also make geometric designs.

3. Students can also make shapes like square, triangle, circle, rectangle, star, etc. using sticks and small beads of modeling clay or ice cream sticks.
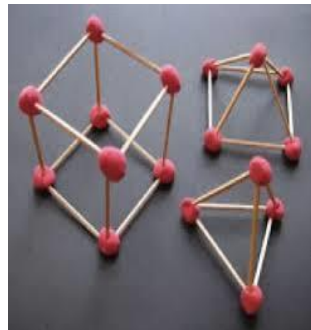
4. Draw Worli drawings/stick drawings where they will use both straight and curved lines.
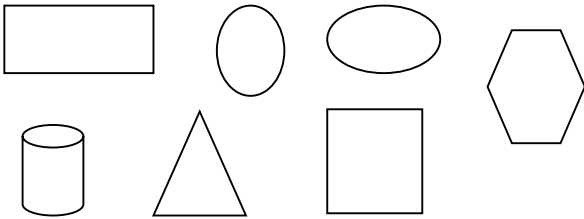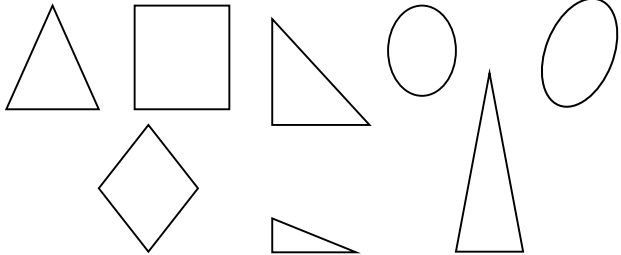
Learning Assessment:

1. Tick the objects that roll and circle the objects that slide.

2. Circle the correct option.
a) Will your dice roll/slide down/ roll and slide down the slope?
b) Will a bat roll/ slide down/ roll and slide down the ramp?
c) Will a bottle cap roll/ slide down/ roll and slide down the ramp?

3. Colour the figures that follow the sorting rule.

Rahul puts away shapes that have no corners.	Sheetal puts away figures with three sides.

4. Draw two other conical objects

Subject : Mathematics	Level-A1	Class- II	Numbers Lesson-2 Counting in Groups Lesson -4 Counting in Tens Lesson -8 Tens and Ones Worksheet- 2

Skill /Competency/Concept	Target Learning Outcomes	Suggested strategies

• Knowledge
• Understanding of Basic Concepts
• Ability to compute
• Problem Solving Ability
	• Understands the concept of zero
	• Able to count and recognise the numbers from 1 to 500 and can write the number names up to 100
	• Can understand the concept of "just before", "just after" and "in between" and is able to do backward and forward counting
	• Computes the numbers at proper place (Place and Place Value).
	• Compares the numbers – more or less and groups them in tens and ones.
	• Attempts to solve problems related to ascending and descending order.
	• Recognises patterns in numbers.
	• Differentiates cardinal numbers and ordinal numbers
		• Recitation Method
		• Activity method
		• Demonstration method
		• Role play method
		• Play way method
		  As an Individual Task
		  Group Task

Sample Activity – 1 | TLO: Understands the concept of zero and able to count the

Recitation Method - Here the teacher will recite one of these two poems and make student learn that nothing or no object means 'zero'. It is shown by the numeral '0' and is read as 'zero'.

| Poem in English –	Poem in Hindi –
Five little ducks went swimming one day, Over the hills and far away, Mother said quack, quack, quack And only four little ducks came back Four little ducks went swimming one day, ………………………………………………………… One little ducks went swimming one day, Over the hills and far away, Mother said quack, quack, quack And no little duck came back.	पाँच छोटी चिड़िया खाती थी अनार, एक चिड़िया उड़ गयी बाकी बची चार। चार छोटी चिड़िया बजा रही थी बीन, एक चिड़िया उड़ गयी बाकी बची तीन । तीन छोटी चिड़िया बैठ रही थी सो, एक चिड़िया उड़ गयी बाकी बची दो । दो छोटी छिदया खा रही थी केक, एक चिड़िया उड़ गयी बाकी बची एक । एक छोटी चिड़िया बनी बैठी थी हीरो, वो भी उड़ गयी बाकी बची ज़ीरो ।

Suggested Activities:

1. Teacher may make use of number line to make children learn counting by two's, three's, four's, five's, etc.

Number of groups =4
Number of cherries in a group=3
Repeated addition sentence=
4 times three =12
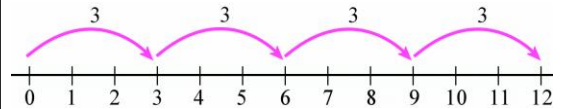
2. Students can make use of real objects like pencils, ice cream sticks, crayons, etc. to make bundles of tens and do counting in tens and ones.

1Ten is equal to 10 ones.
Ten and ten more makes twenty.
Twenty and ten more makes thirty.
3Tens are thirty. Thirty and two more makes 32.

TENS	ONES
3	2

Learning Assessment:

1. There are _____ cups. If you make a pack of tens, then there will be ____ tens and _____ ones.

2. Write it in the short form as given in the example.

e.g.
300
60
4 → 3 6 4

300
70
9 →
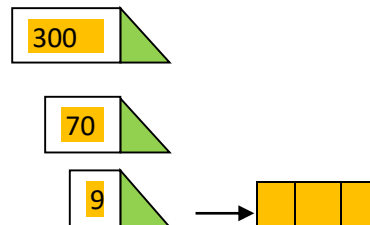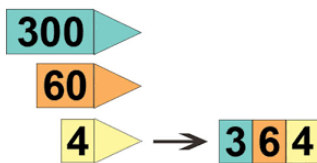
3. Balance both the sides and fill in the blanks.

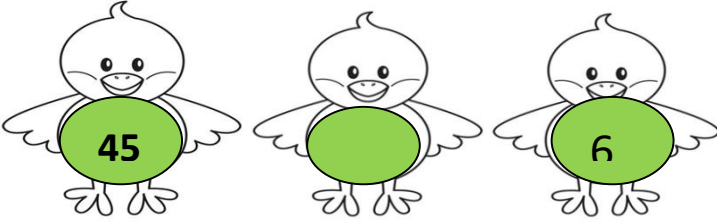a) 12+9 = 20+ ____   b) 16 + 18 = 30 + ____   c) 16 + 6 = 20 + __

4. These children are going for a picnic. Look at the picture and fill in the blanks with ordinal numbers.

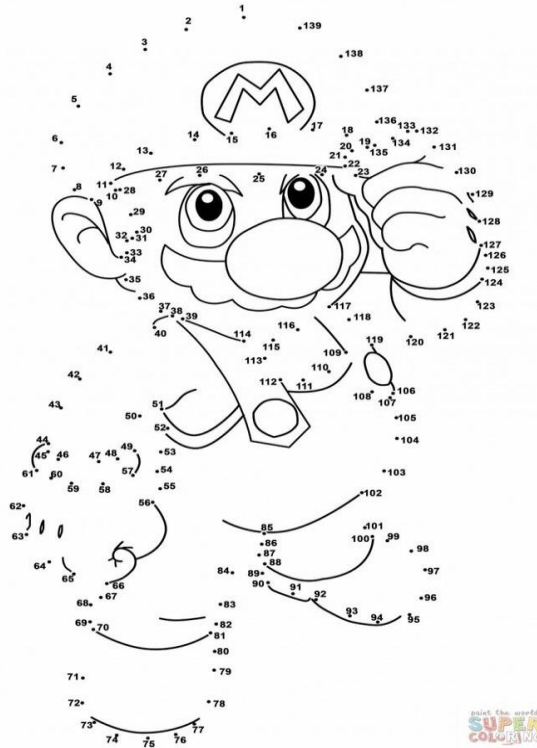Ana Sam Tom Mary Ron Jenny Kim Jack Shelly Pat

a) Mary is _____ in the queue.

b) Ana is _____ in the queue.

c) At what position is Jenny? _____

d) _____ is tenth in the queue.

5. Compare the numbers, Use >, < or =.

45   [ ]   6

6. Join the dots in order to find out what is hidden.

Subject : Mathematics	Level-A1	Class – II	Measurement Lesson - 3 How Much Can You Carry? Lesson -7 Jugs and Mugs Lesson -13 The Longest Step Worksheet -3

Skill /Competency/Concept	Target Learning Outcomes	Suggested strategies
• Forming Numbers • Understanding Basic Concept • Ability to Compute • Measurement related problem solving ability	• Attempts to measure the length using his fingers, hand span, paper clip, foot span and uniform units. • Can estimate distance between two places • Compares weights of objects and is able to tell whether they are lighter or heavier • Can resolve disputes or arguments aroused due to the use of non-uniform units • Guesses capacities of different vessels and can order them in increasing or decreasing order • Designs and uses simple balance to compare weights of objects using non-standard units like stones.	• Activity method • Hands-on Activity method • Demonstration method • Role play method • Play way method • Individual Task • Group Task

Sample Activity – 1

TLO: Compares weights of objects and is able to tell whether they are lighter or heavier.

Hands on Activity: Take three jars of different size. With the help of the students, cover the jars with coloured paper and name them Lalau, Peelu and Neelu and put name tags on the jars. Now fill each jar with different number of marbles. Teacher will call a few children and ask them to hold each jar for a few minutes, guess their weight and arrange them from heaviest to lightest. Now after this, the jars wil be weighed using a balance scale.

Sample Activity – 2

TLO: Designs and uses simple balance to compare weights of objects using non-standard units like stones.

Role Play – Children will make balance, act as shop keeper and weigh things before giving to the students role playing as customers. They will make use of stones of different size to way common things like toys, blocks, beads, bangles, erasers, etc.

Suggested Activities –

1. Children will be grouped in pairs and will be asked to take weight of their friend and record it.
2. The class will be divided into six groups. Students will be asked to make flower bed of 15 foot spans long and sow seeds of flowering plants in them in rows of five.

3. They will guess the amount of water used for making tea, making lemonade, washing face, bathing, watering a potted plant, etc.

4. Children will be asked to fill a bowl with spoons, a glass with a bowl, a mug with a glass, a bottle with a glass and a bucket with a mug. They will be instructed to count the number of spoons, bowls and mugs to see what the capacity of each container is.

Learning Assessment

1. There are three vessels of different size and shape. Rita fills each of them with a glass of water. In which of these vessels will the height of water be more. Tick (√) the correct option.

2. Choose the appropriate units to weigh each item. Write gram or kilogram.

_____   _____   _____   _____   _____

_____   _____   _____   _____   _____

3. Look at the containers and tell which will hold more water. Circle the correct option.

4. Use real clips to measure each picture. Write the number of clips to show how long they are.

 a)

 b)

5. Count the blocks as per the height of the object shown and write the name in the blank provided.
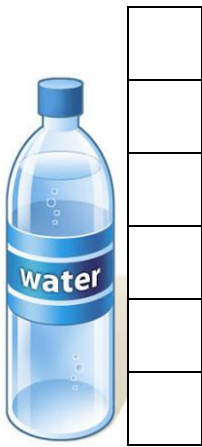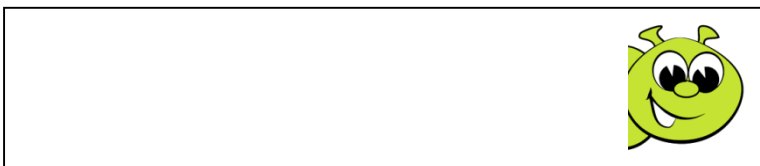

6. Look at the given picture of caterpillar.
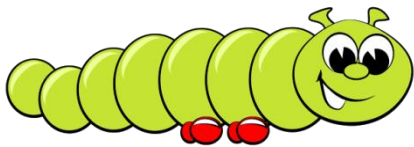
a) Draw a caterpillar longer than the one given in the example.

b) Draw a caterpillar shorter than the one given in the example.

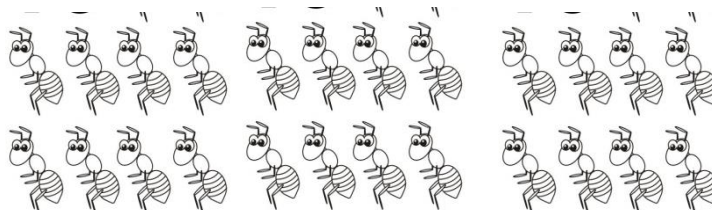7. Guess and help Sunita to complete her task properly.
(i)   She wants to bathe her puppy.

 ☐   ☐   ☐

(ii)   She wants to give medicine to her little son.

 ☐   ☐   ☐

Test Yourself

1. Look and guess the number.

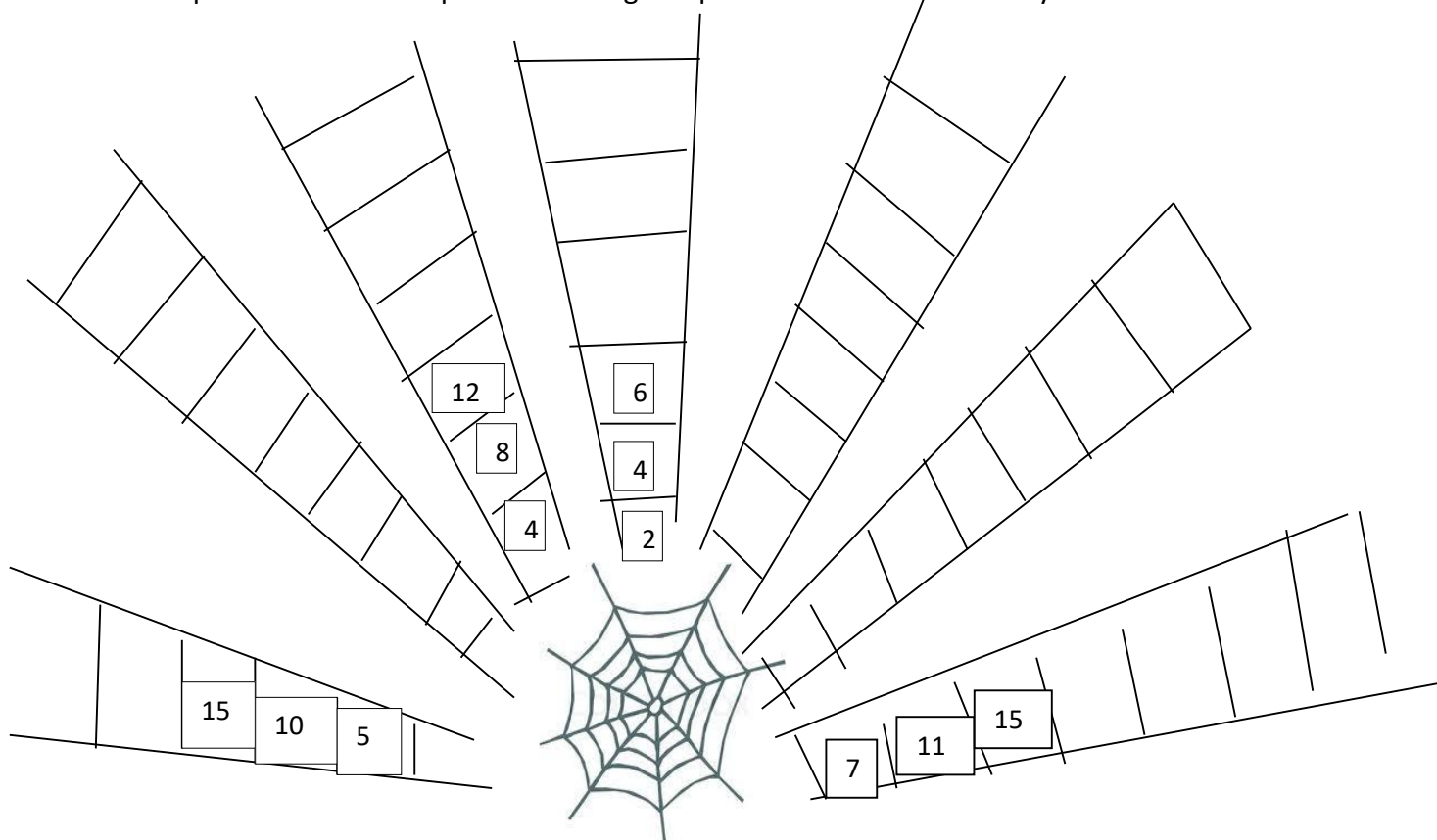   a. How many ants? _____
   b. How many pairs? _____
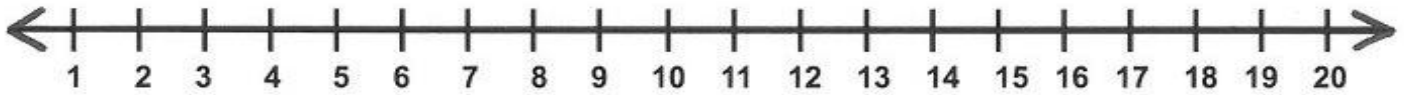
2. Compare these numbers use >, < or =

   ....
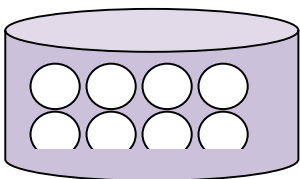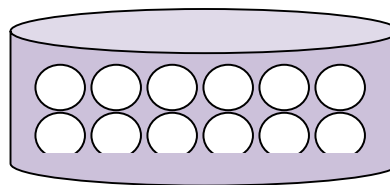
3. Complete each number pattern in the given picture and make some of your own.

12
8
4

6
4
2

15
10
5

7
11
15

4. Write number names :

345

5. Starting from 4, jump in fours to move four times.

```
1  2  3  4  5  6  7  8  9  10 11 12 13 14 15 16 17 18 19 20
```

6. Count in groups and tick the correct option.

How many groups?   A) 8   B)4   C)6
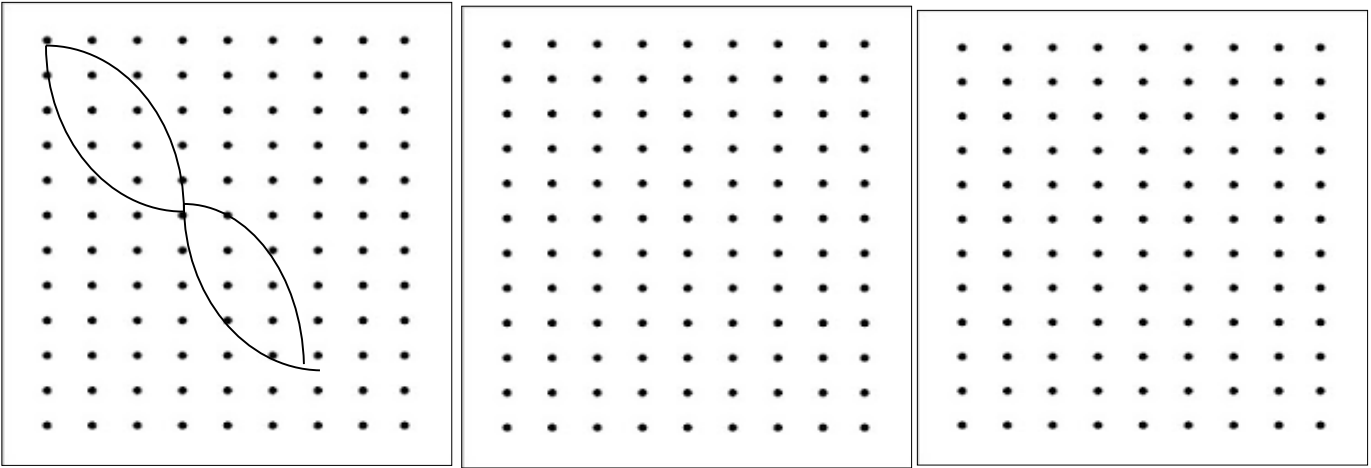
7. Find the hidden word.

Write S in the FIRST box.   Write M in the SECOND box.

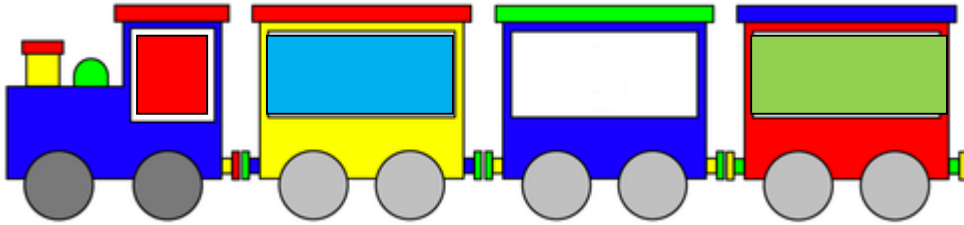Write I in the THIRD box.   Write L in the FOURTH box.

Write E in the FIFTH box.   Write Y in the SIXTH box.

8. Join the dots with curved or straight lines to make more designs.

9. Look at the picture, count and write number of shapes.

1. Triangles   - _____   2. Rectangles - _____   3. Circles - _____   4. Squares - _____

10. Guess and circle the objects you can carry?

Subject : Mathematics	Level-A1	Class – II	Addition and Subtraction Lesson-10 Add Our Points Lesson -12 Give and Take Lesson - 14 Birds Come, Birds Go Worksheet-4

Skill /Competency/Concept	Target Learning Outcomes	Suggested Strategies
• Knowledge • Understanding • Ability to Compute • Problem Solving Ability	• Students will be able to do addition and subtraction of two digit numbers • Can solve problems of addition and subtraction in his/her daily life situations • Can draw required number of objects to find the sum value • Will be able to solve problems related to addition and subtraction in daily life situation • Will be able to explore the ways of equal regrouping/sharing and distributing • Will be able to understand the fact that repeated addition is the basic idea of multiplication	• Activity Method • Demonstration Method • Role play Method • Play way Method • Hands on Activity Method • Story telling Method As Individual task and Group task

Sample Activity – 1

TLO: Problems based on Addition and Subtraction

 Students will be given modeling clay of different colours – red, yellow, blue and green and asked to prepare beads of 5-6 from each colour. Then they will be asked to count the total number of beads they have prepared and compare the amount with his/her friend.

After that they will be asked to give coloured beads of red and blue to his/her friend and take yellow and green coloured beads from his/her friend and prepare a necklace with these two colours. Then again they will calculate the beads and tell whose necklace has more number of beads.

| Activity -2	TLO: Will be able to solve problems related to addition and subtraction in daily life situation

Students will be provided with strength of their neighbouring classes. Then they will be given the data of girls of respective classes and asked to find out number of boys in those classes. Then they will be asked to calculate total number of students in those classes.

How Many Students

SL NO.	CLASS	BOYS	GIRLS	TOTAL
1	I		23	42
2	II		20	45
TOTAL				

Learning Assessment:

1. Balance the weight.
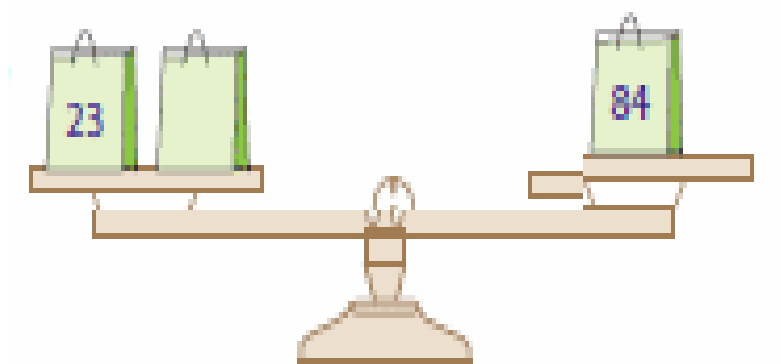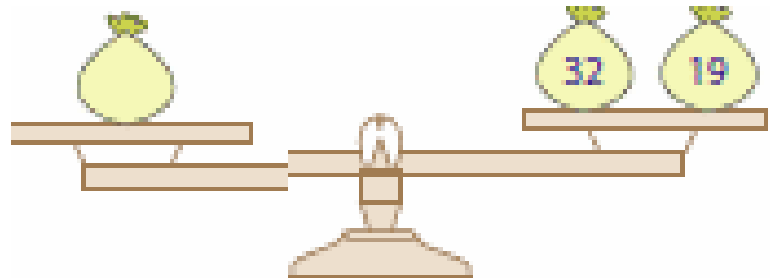
2. Add/Subtract and colour the pictures using colour key –

20	White
61	Purple
52	Brown
45	Red
19	blue
38	Yellow
06	Green
12	Pink

(i)   3 0   ii) 2 1   iii) 9 2

    +2 2   +2 4   - 3 1
  _____   _____   _____

  _____   _____   _____

3. Ali has 25 Laddoos and Seema has 61 Laddoos. How many Laddoos they have in total?

TENS	ONES

Subject : Mathematics	Level-A1	Class –II	Lesson- 5 Patterns Worksheet- 5

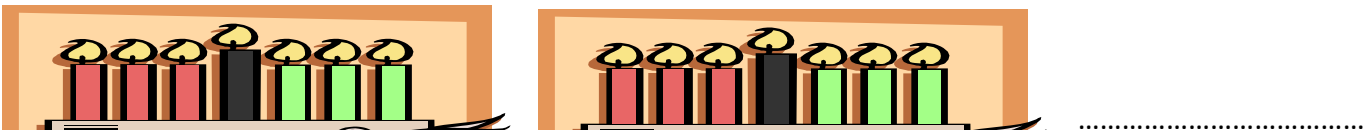| Skill /Competency/Concept	Target Learning Outcomes	Suggested strategies
- Forming Numbers - Understanding Basic Concept - Ability to Compute - Problem Solving Ability	- Students would be able to identify the patterns right from school to home. - Students would be able to recognise the pattern in pictures, shapes, numbers, alphabets, colours and growing and decreasing patterns. - Students would be able to understand the basic rule of creating a pattern and can extend the sequence.	- Activity Method - Demonstration Method - Role Play Method - Play Way Method - Hand On Activity Method - As Individual Task - Group Task

Sample Activity – 1	TLO: Students would be able to understand the basic rule of creating a pattern and can extend the sequence.

Students will be asked to observe the above rangoli and have a discussion on the same.

a) How many designs are repeated in the Rangoli?

b) How many colours are repeated in the given Rangoli?

c) Draw the blocks those are repeated in this Rangoli.

Sample Activity – 2	TLO: Students would be able to recognise the pattern in pictures, shapes, numbers, alphabets, colours and growing and decreasing patterns.

1. Students will be asked to observe the pattern in the shirt of their school uniform and draw the same in their copy.

2. Students will be asked to observe the pattern in window grills, in bed sheets, in floor tiles, in leafs etc. and draw the same.

<div align="center">Learning Assessment:</div>

1. What will be next in the sequence?

a)

b)

c)

d) 2   4   6   8   10............................ ………………………………… …………………………

e)
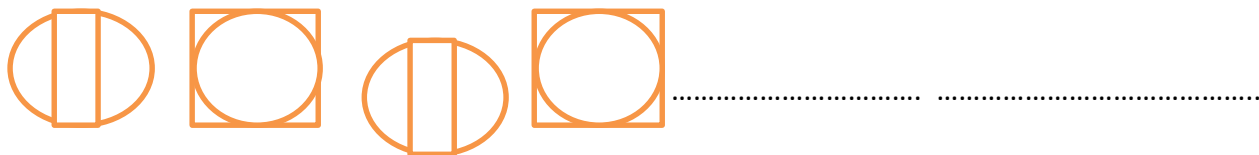
2. Identify the patterns which are repeated here.

CEMENT TILE SHOP
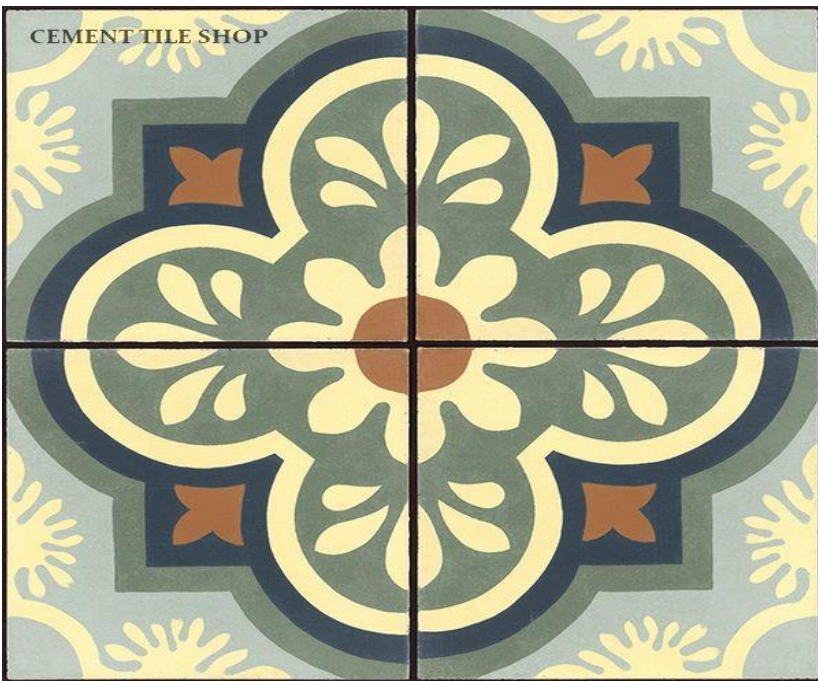
Subject : Mathematics	Level-A1	Class – II	Lesson - 9 My Fun Day Worksheet-6

Skill /Competency/Concept	Target Learning Outcomes	Suggested Strategies
• Forming Numbers • Understanding Basic Concept • Ability to compute • Time related problem solving ability	• Understands and gets familiar with days of a week, months, along with yesterday, today and tomorrow. • Will be able to read the time table and can prepare a time table for him/her. • Attempts to tell the activities of a year and month in sequence and can distinguish time of events using his previous knowledge, vocabulary and real life experiences • Will be able to distinguish seasonal fruits, vegetables, flowers, food items etc. month wise. • Will be able to categorise the festivals according to the months and can arrange them in order. • Will be able to read the time.	• Activity Method • Play Way Method • Hands on Activity Method • Puzzles or Crosswords • Songs and Poem Recitation Related to Time As Individual Task and Group Task

SAMPLE ACTIVITY – 1	TLO: 1. Understands and get familiar with days of a week, months, along with yesterday, today and tomorrow. 2. Will be able to read the time table and can prepare a time table for him/her.

Teacher will provide the students a breakfast chart. Then he/she will prepare some questions related to the chart.

My Mother's Breakfast Chart

DAYS	Name of Breakfasts
Monday	Sandwich
Tuesday	Aloo paratha
Wednesday	Chowmin
Thursday	Idli
Friday	Uttapam
Saturday	Corn flakes
Sunday	Dosa

a) On ……………………………………. I have Chowmin as breakfast.

b) If today is Friday after ………………… days I can eat Sandwich.

c) On Thursday I eat ……………………………. .

d) If today is Thursday, I can eat tomorrow …………………………….

Sample Activity – 2

> TLO: Will be able to distinguish seasonal fruits, vegetables, flowers, food items etc. month wise.

Answer the questions given below and encircle the names of the months in the table:

T	J	A	N	U	A	R	Y	F	F
F	U	U	R	D	A	S	D	F	G
E	P	M	U	E	R	F	E	A	C
B	O	A	J	C	F	G	S	U	V
R	N	Y	H	E	R	H	S	G	B
U	Y	K	N	M	T	T	E	U	N
A	K	J	M	B	G	F	R	S	M
R	H	U	J	E	H	R	D	T	A
Y	C	Y	G	R	A	P	R	I	L
U	B	H	M	N	N	B	C	Z	X

a) The king of the fruits come in the month of…………………………………….

b) We celebrate Christmas in the month of …………………………………….

c) We celebrate Makar Sankranti in the month of …………………………..

d) We celebrate Independence Day in ……………………………. month.

e) …………………………………….. month has 28 days.

Learning Assessment:

1. Look at the picture below and answer the questions asked -

1 Jan.	2 Feb.	3 Mar.
JAN January	FEB February	MAR March
4 Apr.	5 May	6 Jun.
APR April	MAY May	JUN June
7 Jul.	8 Aug.	9 Sep.
JUL July	AUG August	SEP September
10 Oct.	11 Nov.	12 Dec.
OCT October	NOV November	DEC December

I know the months!

a) …………………………………. is the 1st month of the year.

b) ………………………………….. is the 6th month of the year.

c) ………………………….comes after August.

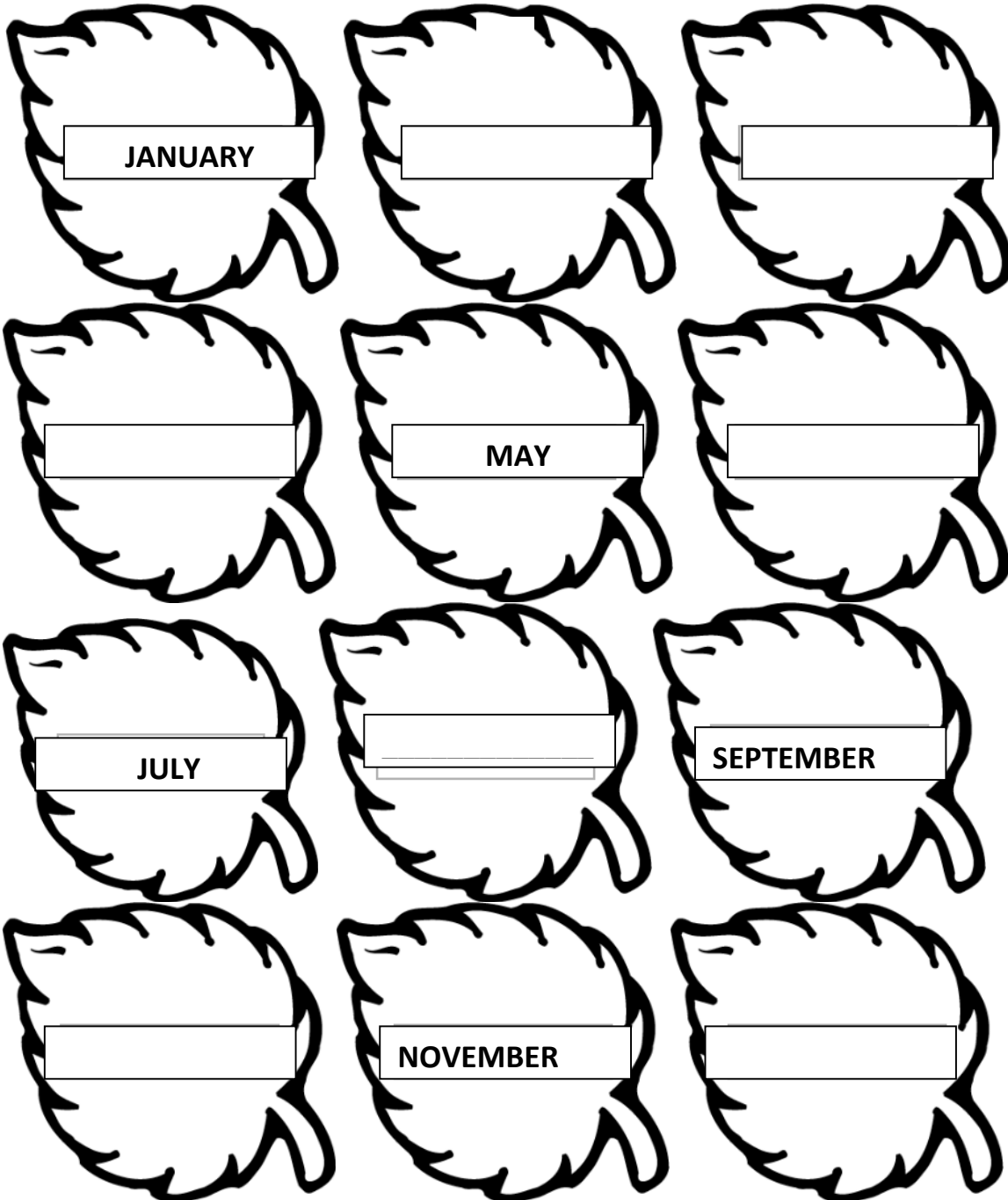d) We shall go to the next class in ………………………………. .

2. Tell the time on these clock faces

When the long hand points to twelve, the short hand will point exactly to one of the number of the clock

3. Complete the names of the months of a year in the given picture.

JANUARY

MAY

JULY

SEPTEMBER

NOVEMBER

Subject : Mathematics	Level-A1	Class – II	Lesson - 15 How Many Pony Tails Worksheet -7

Skill /Competency/ Concept	Target Learning Outcomes	Suggested strategies
• Forming Numbers • Understanding Basic Concept • Ability to Compute • Problem Solving Ability	• Students would be able to collect and record information in his/her own way represents them and interprets them. • Students would be able to give their views on their recorded information and discuss with others. • Students would be able to solve word problems in their real life situations related to data handling.	1. Activity Method 2. Demonstration Method 3. Role Play Method 4. Play Way Method As Individual Task and Group Task

Sample Activity – 1

TLO: Students would be able to collect and record information in his/her own way and represent them and interpret them.

Students will be asked to bring out their tiffin boxes and record the information in the given table.

SAMPLE OF RECORD SHEET

S.NO.	COLOUR OF THE TIFFIN BOX	NUMBER OF STUDENTS
1	Red	
2	Blue	
3	Green	
4	Pink	
5	Purple	

Note: one for one child.

All the students will give the required data and then they will be asked questions like

a) How many students bring red coloured tiffin box?

b) Which colour of tiffin box is the greatest in number?

Sample Activity – 2	TLO: Students would be able to solve word problems in their real life situations related to data handling.

Students will be supplied observation sheets to collect data regarding- (What is there in my school bag?)

S.NO.	NAME OF THE THINGS	NUMBER OF THE THINGS
1	BOOKS	
2	COPIES	
3	PENCILS	
4	COLOURS	
5	TIFFIN	

Note: One / for one article.

Students will collect the data and next day there will be a discussion regarding-

a) Which thing is more in number?

b) Which thing is only one in everybody's bag?

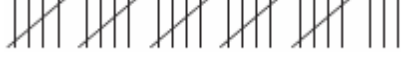C) How many students have 2 pencils?

Learning Assessment:

1. Sharmila eats apples every day. She prepared a chart according to days as how many apples she ate on a particular day-

S.NO.	DAYS	NUMBER OF APPLES
1	MONDAY	
2	TUESDAY	
3	WEDNESDAY	
4	THURSDAY	
5	FRIDAY	

a) On which days Sharmila eats four apples?

b) How many apples she eats in five days?

c) She eats one apple on _____ day.

2. Write the number shown by tally marks in the questions given below.

TALLY MARKS	NUMBER
1) 卌 卌 卌 卌 卌	Example: 5+ 5+ 5+ 5+ 5 = 25
2) 卌 卌	
3) 卌 卌 卌 卌 卌 |||	
4) 卌 卌 卌 卌 |||	
5) 卌 卌 卌 ||	
6) 卌		
7) 卌 |||	

Test Yourself

1. Complete the pattern.

Enzo has assigned numbers to the colors. We chose
some numbers, can you help us find the colors?

1 2 3 4 5 6 7 8 9

1 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1

3 | 7 | 1 | 8 | 3 | 7 | 1 | 8 | 3

2. Follow the pattern.

A) ACE FHJ KMO _____ _____

B) 37 34 31 ___ ___ ___ ___

C) 85 95105 ___ ___ ___ ___

D) 13 15 17 19_____ _____ _____ _____

3. Fill in the blanks of each crossword puzzle to make the addition equation equal –

15	+		=	24
+				
=				
26				

4. Write subtraction for each number

60   -   34   =   _____

25 - 19 = _____

40 - 0 = _____

5. Find the value

a) 16+12=_____   b)25+30=_____

c) 35- 10= _____   d) 50-20= _____

6. Samita has 35 pencils. Swati has 34 pencils. How many pencils they have in total?

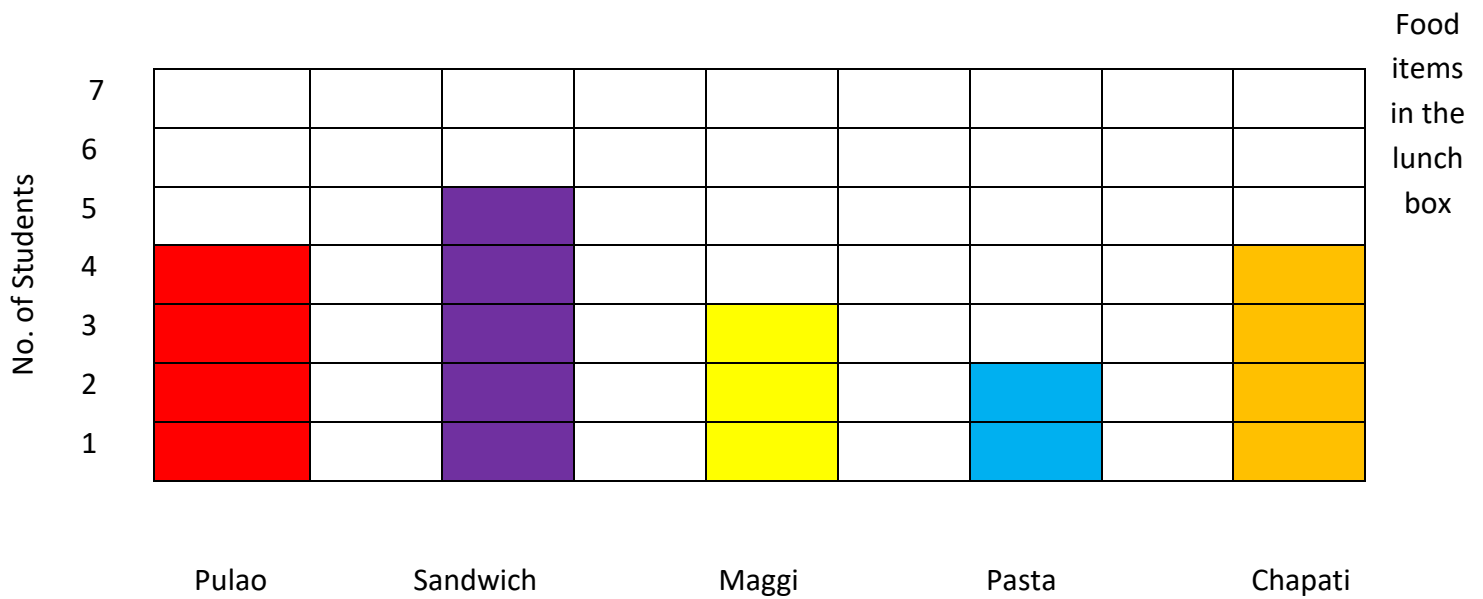7. Rupa has 54 chocolates. She gave away 32 chocolates. How many chocolates remain with her?

8. Complete the missing one:

   Yesterday   Today   Tomorrow

…………………………….Monday   …………………………………….

………………………… Friday ……………………..

9. Sequence the following events held according to the dates when they happened, by putting numbers against them:

Children's day on 14th November   Independence day on 15th August

Teacher's day on 5thSeptember   Republic day on 26thJanuary

Gandhi Jayanti on 2ndOctober   Christmas on 25thDecember

10. Reeta conducted a survey of food items in the lunch box of class 2 students on Monday. She drew a graph on the basis of her conclusions:

No. of Students

7										
6										
5			■							
4	■		■							■
3	■		■		■					■
2	■		■		■		■			■
1	■		■		■		■			■

Pulao   Sandwich   Maggi   Pasta   Chapati

Food items in the lunch box

Answer the following questions:

a) Which food item is liked by most of the students?

b) Which food item is liked by least students?

c) How many types of food items are there?

d) How many students like sandwiches?