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MATHEMATICS

2

Term - 2

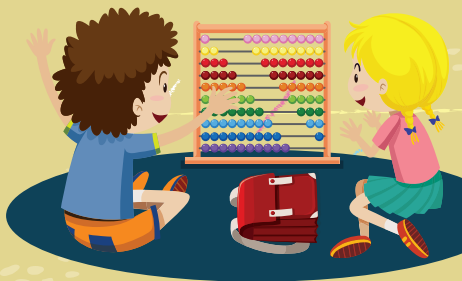




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UNIT
1

Geometry



1.1 Properties of 2D shapes

Keywords

Open shape
Closed shape

Travel Through

Ask the students to form a circle by holding their hands. Then call any three students to act like lamb, sheep and fox. Make them play the game as follows.



<p>I am the fox. I want to see the lamb. Did you see it?</p>	<p>Yes, yes, yes. It is very safe inside.</p> <p>No, no, no. We won't give way. Close, close, close.</p> <p>Can you open the gate and give the way?</p>
<p>I am the sheep. Did you see my little lamb? I am searching him for a long time.</p> <p>Yes, yes, yes.</p>	<p>Give way for me to enter inside.</p> <p>Yes, yes, yes. Here is the way open for you.</p>

Teacher's Note:

Teacher narrates the story of sheep and fox to enhance the usage of the words such as close and open.


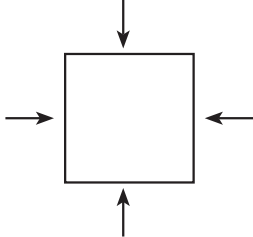
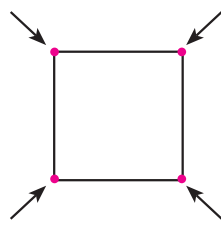

Learn

Properties of 2D shapes


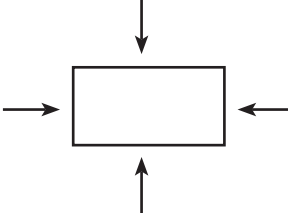
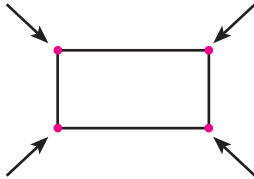



Let us learn the properties of 2D shapes.


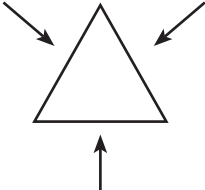
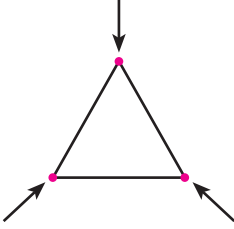
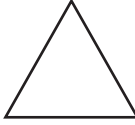
Square

			
This stamp is in the shape of a square.	Square is a closed shape. Square has four sides.	It has four corners.	All the four sides are equal.


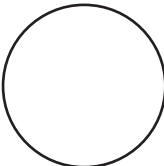
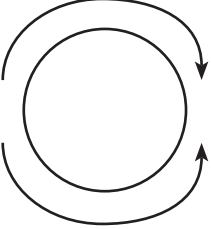
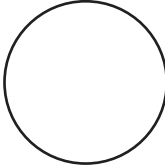
Rectangle

			
50 rupees note is in the shape of a rectangle.	Rectangle is a closed shape. It has four sides.	It has four corners.	Opposite sides are equal.

Triangle

			
Traffic signal is in the shape of a triangle.	Triangle is a closed shape. It has three sides.	It has three corners.	Sides can be equal or unequal.

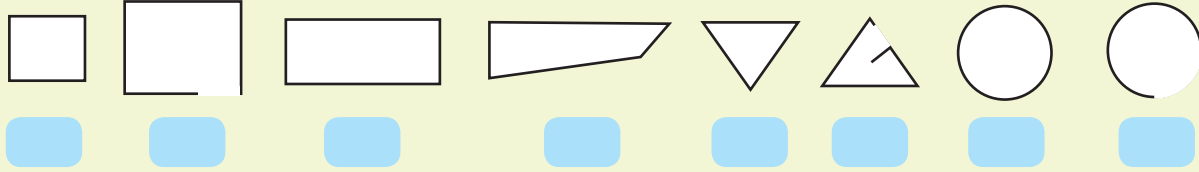
Circle

			
Coin is in the shape of a circle.	Circle is a closed curve.		

Practice







Write "C" for closed shapes and "O" for open shapes in the given space.



Draw open shapes of your choice	Draw closed shapes of your choice

Complete the table.

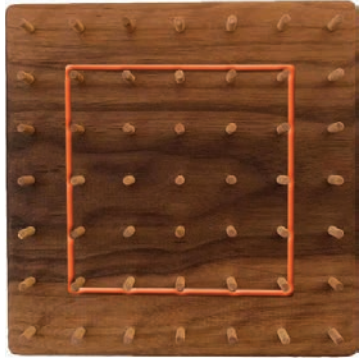
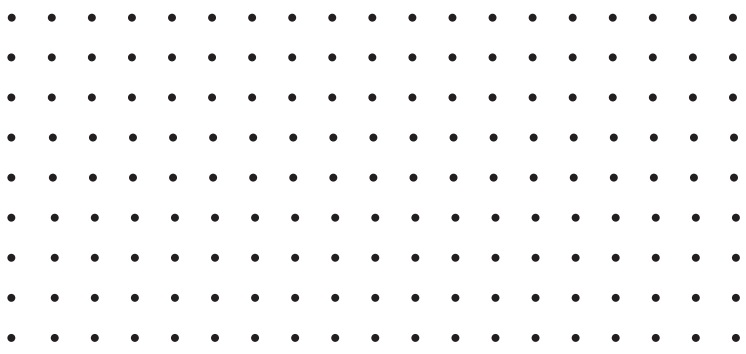
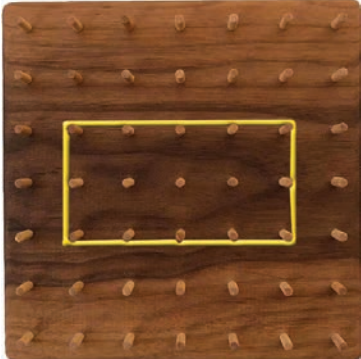
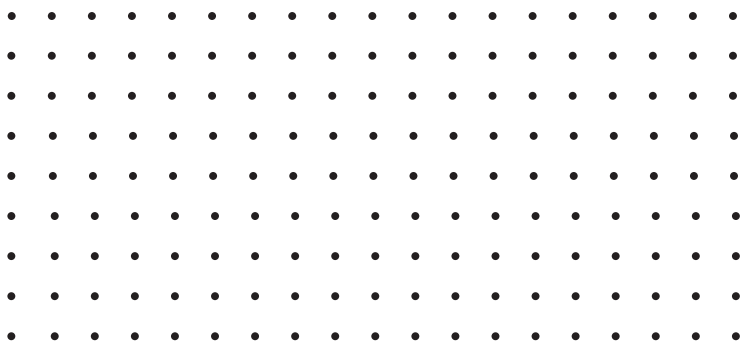
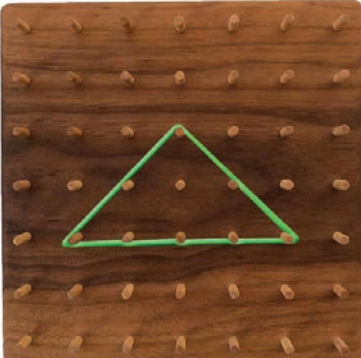
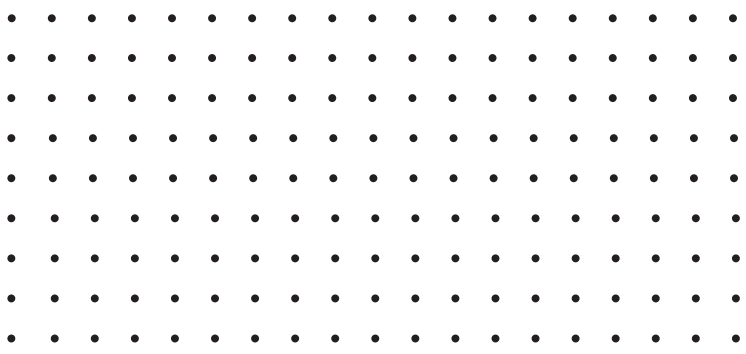
Shape	Number of sides	Number of corners	Tick (✓) one of the statement true for the shape	Name of the shape
			<input type="checkbox"/> All sides are equal. <input type="checkbox"/> All sides are unequal.	
			<input type="checkbox"/> Opposite sides are equal. <input type="checkbox"/> Opposite sides are unequal.	
			<input type="checkbox"/> It has three sides. <input type="checkbox"/> It has four sides.	
			<input type="checkbox"/> It is a straight line. <input type="checkbox"/> It is a curved line.	



Try This



Observe the shape in the geoboard and draw as many similar shapes of various sizes in the dot sheet given on the right side of it.

Teacher's Note:

Teacher can facilitate children to form 2D shapes in geoboard using rubberbands.

Think Like a Mathematician

Can you form a circle using rubberband in a geoboard?

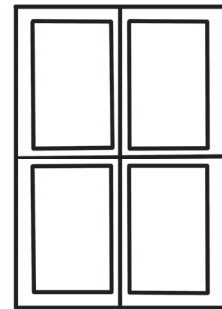
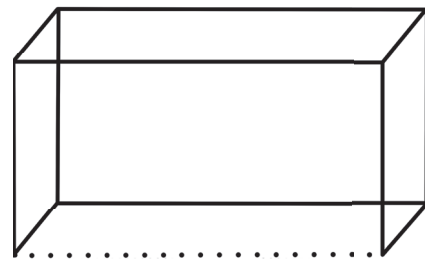
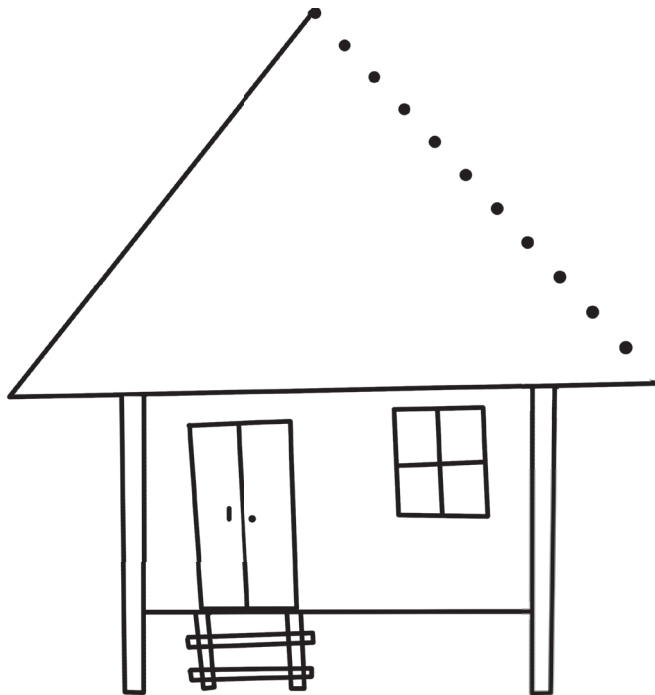
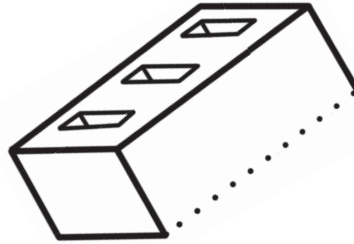
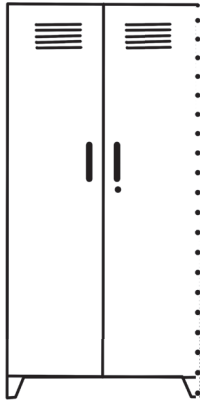


1.2 Identification of objects by blind folding

Recall



Join the dotted line in each of the given figure and write 'H' for horizontal line, 'V' for vertical line, 'S' for slanting line and 'C' for curved line.



Teacher's Note:

Teacher can extend this activity and ask children to discuss the other types of lines observed in each of the given figures.

Travel Through

The teacher blindfolds one of the students and asks him/her to take an object and identify the objects by asking questions based on the properties as follows.

Teacher : Is the object in your hand flat or round?

Student : The object is _____.

Teacher : Now feel the sides. How many sides it has?

Student : It has ___ sides.

Teacher : Are the sides equal, say yes or no ?

Student : _____.

Teacher : Can you guess the shape of the object now?

Student : It's shape is _____.



Keywords

Cube
Cuboid
Cylinder
Cone
Sphere
Circle
Square
Corner
Edge
Curve
Straight line



Teacher's Note:

Teacher should provide opportunities for all children to familiarize the properties of different shapes.

Learn

Tracing curved lines

Keep a bangle on a paper and trace its outline.



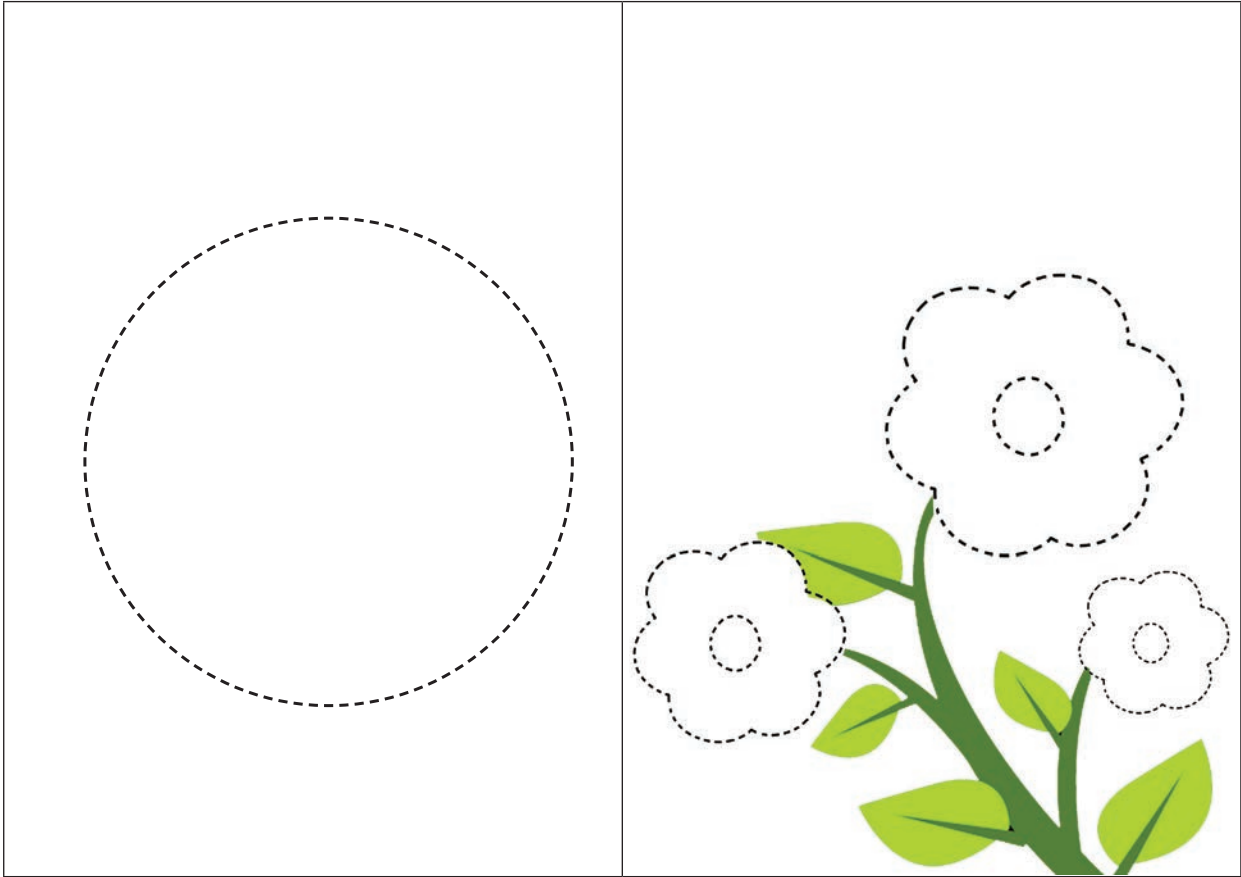
Trace the outline of your fingers.



Pleasure time



Join the dots and form the shape.

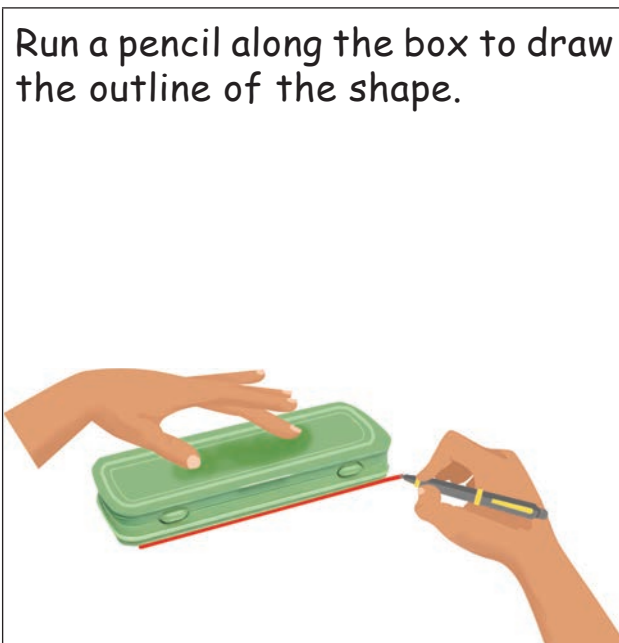


Learn

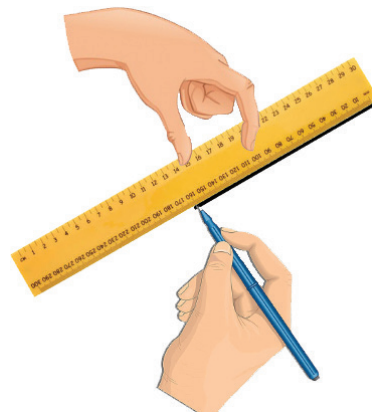
Tracing straight lines



Run a pencil along the box to draw the outline of the shape.



Take a ruler and run a pencil along its side to get its shape.

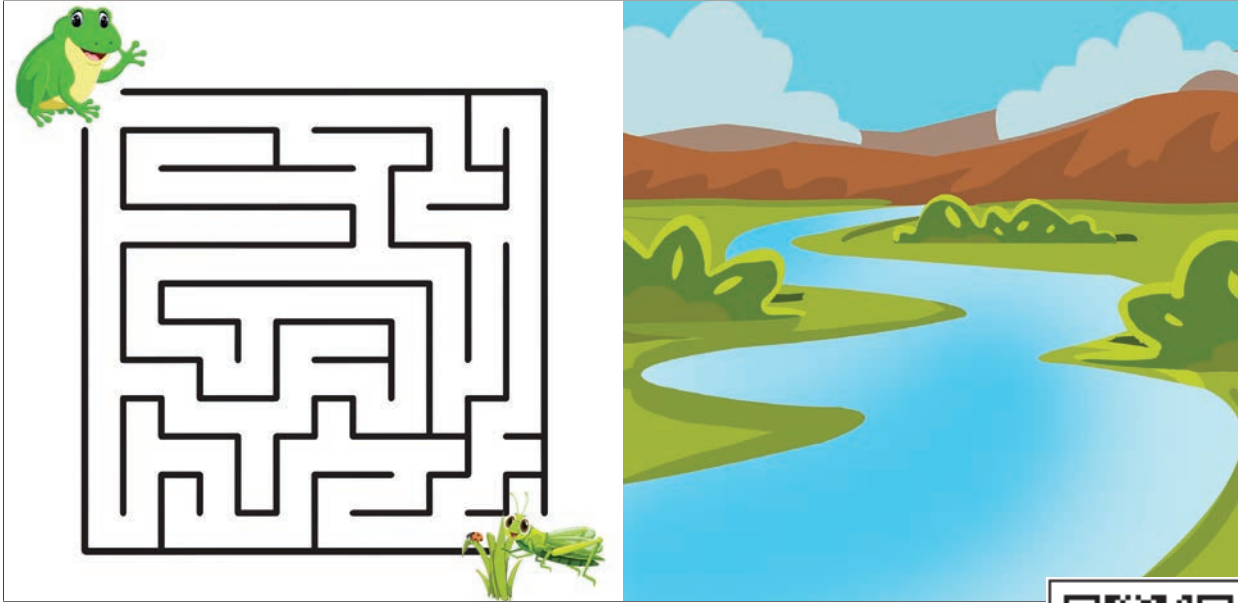


Practice



i) Using a ruler, draw straight line path to help the frog to have his food.

ii) Draw the outline of the river and the cloud using appropriate colour pencil.



Pleasure Time



Tick the lines found in the alphabets and numerals.

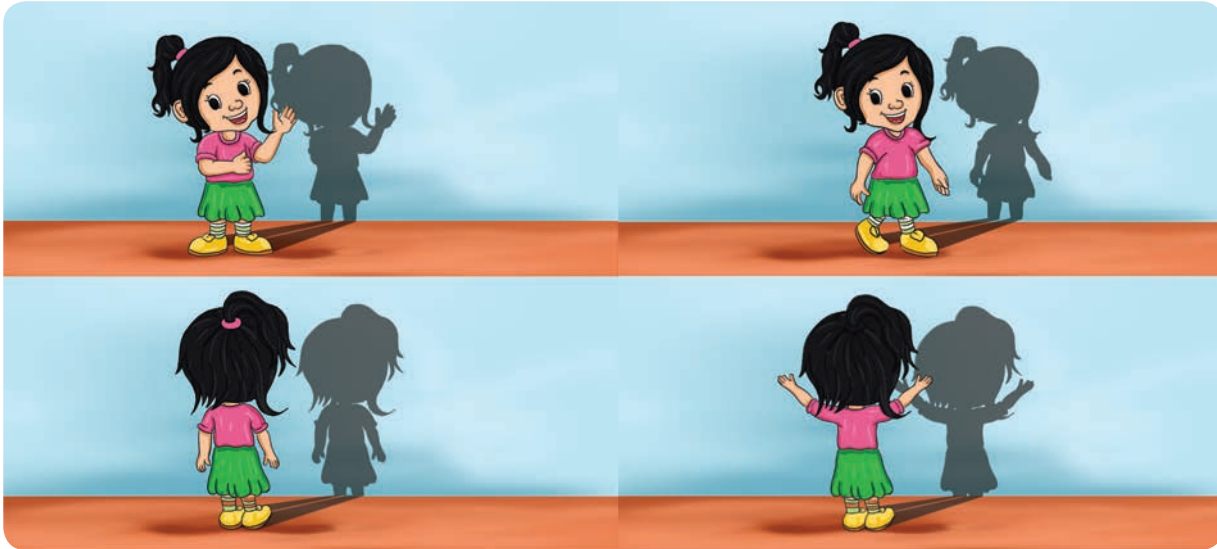
Alphabets and numerals	Horizontal line	Vertical line	Slanting line	Curved line
A				
B				
R				
C				
H				
I				
J				
K				
0				
3				
5				
6				
7				

1.3 Identification of objects by observing the shadows

Learn



Look at the shadow of the girl in various positions.



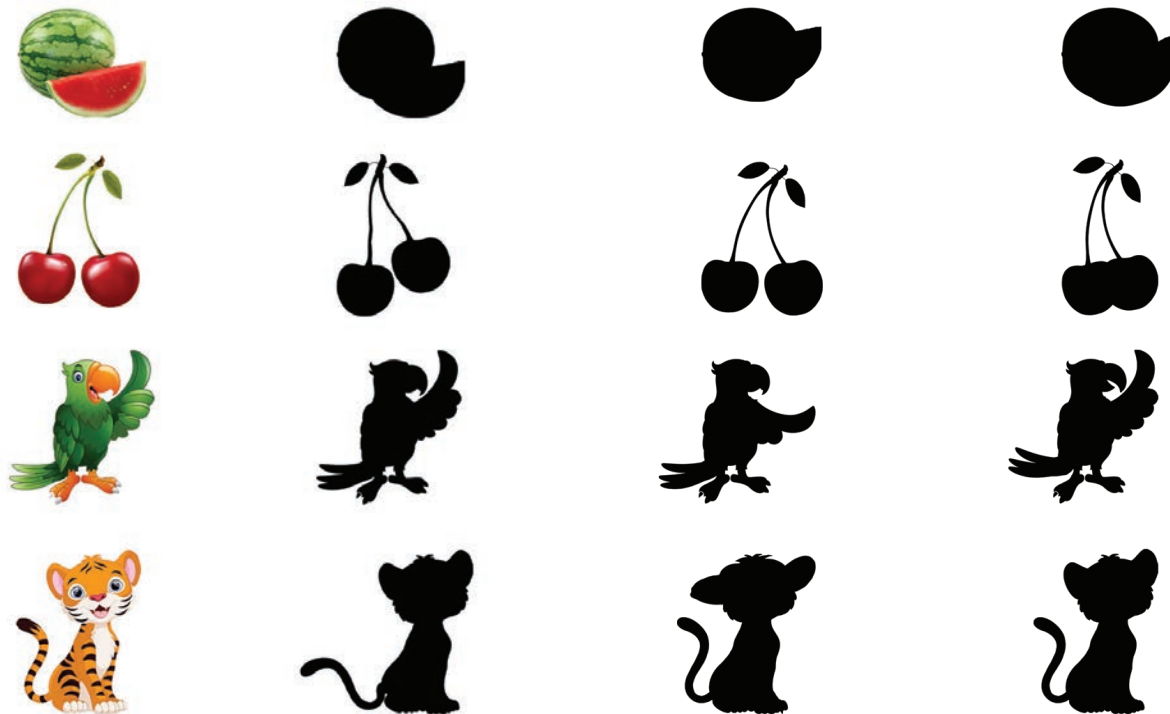
Teacher's Note:

Teacher can discuss the size and position of shadows formed. Help the children to observe and discuss about shadows.

Practice



Circle the correct shadow of the given objects.



UNIT 2

Numbers



2.1 Comparison and formation of numbers

Keywords
Biggest
Smallest
Bigger
Smaller

Recall

Compare the numbers



i) Colour the **bigger** number in each of the given pairs.

--	--	--	--	--	--	--	--

ii) Tick the **smaller** number in each of the given pairs.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

iii) Connect the number which is **equal** to the given number in each of the given groups.

Learn

Biggest and smallest number



(i) Let us compare the given two-digit numbers.

Take the numbers 20, 70, 90

Here, 2 tens is less than 7 tens and 7 tens is less than 9 tens.

So, 2 tens is the **smallest** and 9 tens is the **biggest**.

20 is the **smallest** number and 90 is the **biggest** number.

(ii) Let us compare the numbers which have same digits in the tens place 25, 23, 26

Here the tens are equal. So we compare the ones. 23, 25, 26

Among 3, 5 and 6,

6 ones is the **biggest** and

3 ones is the **smallest**.

So, 26 is the **biggest** number and 23 is the **smallest** number.



(iii) Let us compare the numbers which have different digits in both the places 25, 31, 40.

Though the digits in ones place are different, it has no significance in the comparison of numbers.

So, it is enough to compare the tens place: 25, 31, 40

4 tens is the **biggest** and 2 tens is the **smallest**.

So, 40 is the **biggest** number and 25 is the **smallest** number.

Practice

Circle the biggest number.

- i) 34, 35, 39.
- ii) 30, 80, 50.
- iii) 41, 79, 19, 48.
- iv) 62, 54, 76, 67.
- v) 75, 57, 63, 36.

Box the smallest number.

- i) 70, 20, 10.
- ii) 89, 82, 85.
- iii) 35, 43, 17, 29.
- iv) 59, 51, 15, 57.
- v) 91, 19, 96, 69.

Choose the correct answer.

1. 85 is the biggest number among _____.
(i) 90, 74, 85 (ii) 60, 85, 58
2. Among 50, 40, 18 and 71 the smallest number is _____.
(i) 18 (ii) 71 (iii) 50 (iv) 42
3. Among 62, 45, 75 and 52 the biggest number is 62.
(i) True (ii) False

Learn

Formation of two-digit numbers



Take 2 sets of number cards.

One set from 0 to 9 and the other set from 10 to 90.

Call 2 children to take one card from each set and form a two-digit number.

Formation of two-digit numbers without repetition of digits.

Let us consider the two-digit number 45. To form this number, we need to select the cards $\boxed{40}$ and $\boxed{5}$.

Let us consider the two-digit number 54. To form the two-digit number 54 (digits interchanged) we choose the cards $\boxed{50}$ and $\boxed{4}$.



Formation of two-digit numbers with repetition of digits.

Let us take the example of forming the two-digit number 66. Here we need to select the cards 60 and 6.



Ask other children to take different set of cards and to form various two-digit numbers with and without repetition of digits.

Practice



Form different two-digit numbers using the number cards given below. One is done for you.

Tens

$\boxed{30}$ $\boxed{70}$ $\boxed{90}$

Ones

$\boxed{1}$ $\boxed{6}$ $\boxed{2}$ $\boxed{3}$ $\boxed{7}$ $\boxed{9}$

Formation of two-digit numbers with repetition of digits

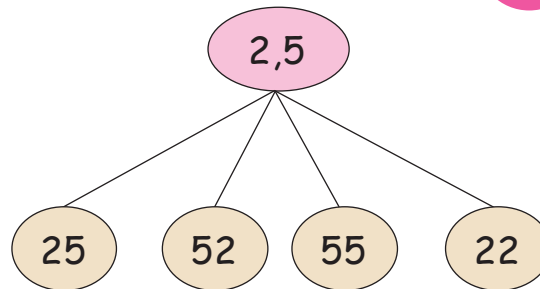
Tens	Ones	Two-digit numbers
30	3	33

Formation of two-digit numbers without repetition of digits

Tens	Ones	Two-digit numbers	Tens	Ones	Two-digit numbers
30	1	31			

Try This

Take 2 dice and throw them. Note down the two-digit numbers (with and without repetition) formed. For example, if the numbers seen on the face of the dice are 2 and 5, then the different ways of forming two-digit numbers are shown.



Face Numbers	Two-digit Numbers			Biggest Number	Smallest Number

Using the given numbers, form all possible two-digit numbers and complete the table.

Numbers	Two-digit Numbers			Biggest Number	Smallest Number
9,2					
1,7					
8,3					
6,9					
0,6					

Pleasure Time

Complete all possible two-digit numbers (with and without repetition of digits).

--	--

2.2 Ordering of numbers

Travel Through



Keywords

Ascending order
Descending order

Kavitha arranged her toys in an order as shown below. Guess the order of her arrangement.

<p>1</p>	<p>2</p>
<p>3</p>	<p>4</p>

Learn

Arrangement in alphabetical order



We can arrange the names of things in alphabetical order.



Cap



Doll



Gift



Fan



Apple



Egg



Ball

Alphabetical order: Apple, Ball, Cap, Doll, Eggs, Fan, Gift

Practice



Arrange the given things in alphabetical order and fill in the blanks.



Kite



Jar



Eraser



Cup



Lock



Gum



Book



Fish

Book, _____, _____, _____, _____, _____, _____

Teacher's Note:

Teacher can extend the above activity for different objects.

Try This



Write the names of your classmates in strips. Arrange them in alphabetical order.

Teacher's Note:

Teacher can guide students if two or more names begin with same alphabet.

Learn

Ascending and descending order



Ascending or increasing order

The bananas are arranged by counts.



The numbers have been arranged from the smallest to the biggest. This order of arrangement is called 'Ascending order'.

Descending or decreasing order



The numbers have been arranged from the biggest to the smallest. This order of arrangement is called 'Descending order'.

The oranges in the plates are arranged by counts. We can arrange the plates according to the number of oranges in them.



Ascending order: 5,7,9,10.

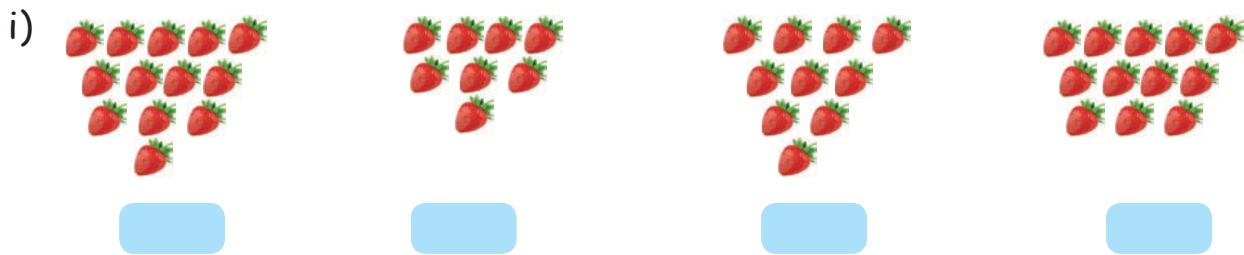


Descending order: 10,9,7,5.

Practice



1. Count the given things and write them in the boxes. Arrange in ascending and descending orders.



Ascending order				
Descending order				



Ascending order				
Descending order				

2. Write the following numbers in ascending and descending order.

i) 9,5,7,3

Ascending order				
Descending order				

ii) 4,12,15,17

Ascending order				
Descending order				

iii) 8,6,10,3

Ascending order				
Descending order				

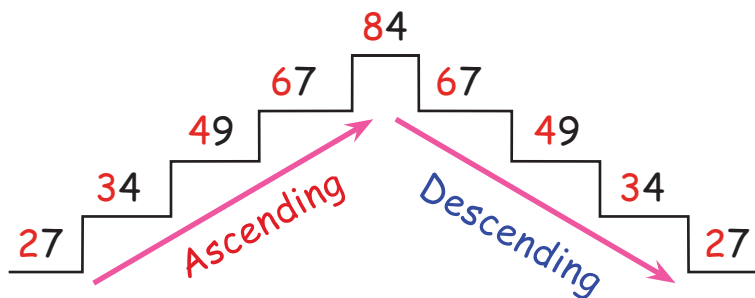
Learn



Arrange the given numbers in ascending and descending order:

34, 67, 84, 27, 49.

To arrange the given numbers in ascending order, let us look at the digits in tens places 34, 67, 84, 27, 49 and arrange them. 2 tens is the smallest among these and next is 3 tens followed by 4 tens, 6 tens and 8 tens. So, we can arrange the numbers from smallest to the biggest as given below.



Ascending order = 27, 34, 49, 67, 84.

To arrange the numbers in descending order we arrange the numbers from biggest to smallest.

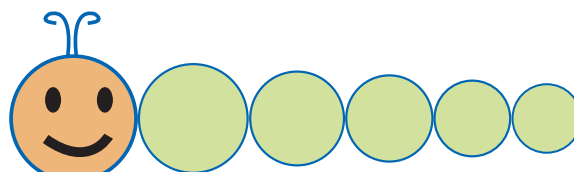
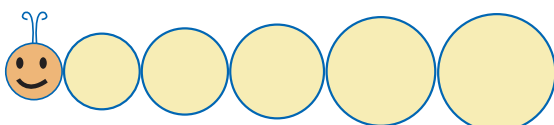
Descending order = 84, 67, 49, 34, 27.

Practice

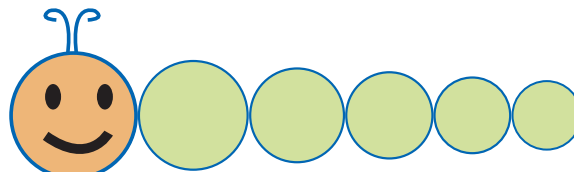
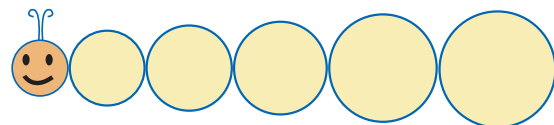


Write the numbers in ascending and descending orders.

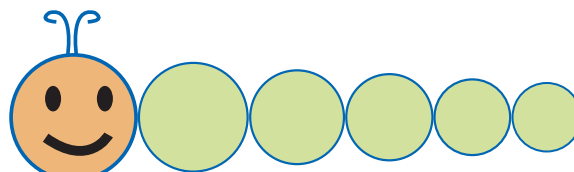
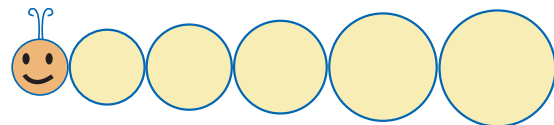
i) 12, 24, 35, 17, 9.



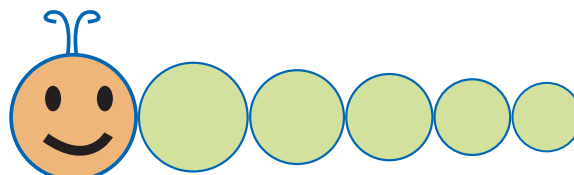
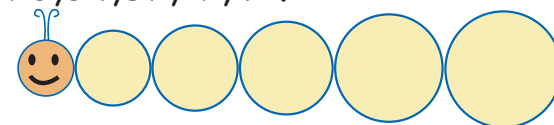
ii) 39, 70, 44, 86, 71.



iii) 94, 81, 90, 70, 69.



iv) 73, 54, 87, 17, 42.



Activity

Classroom activity



- ❖ Take cards with numbers written from 0-9.
- ❖ Divide the class into two groups. Three children from one group take cards with numbers. Say 3, 2, 5 and make as many two-digit numbers as possible.
- ❖ The next group of children shall arrange the numbers formed in ascending and descending order.

Try This

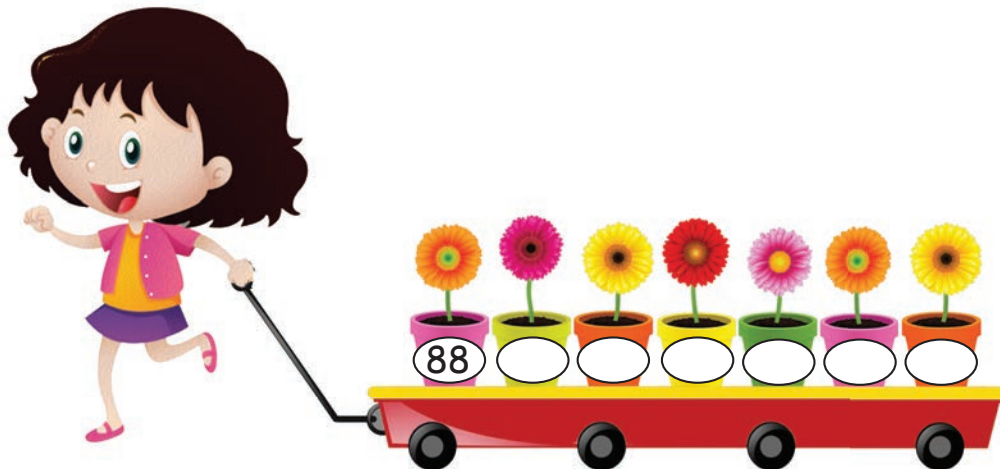


Fill in the flowerpots using given numbers only once.
72, 17, 88, 15, 93, 10, 60, 53, 21, 44, 39, 78, 65, 49.

- i) Write the **ascending** order of numbers beginning with 21.



- ii) Write the **descending** order of numbers starting with 88.



2.3 Number name

Recall



Count and write the number and number name for the given aquatic creatures.














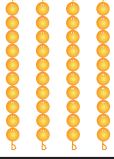
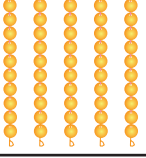
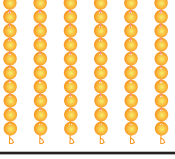
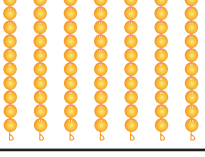
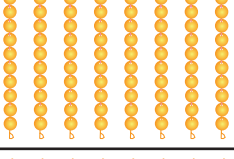
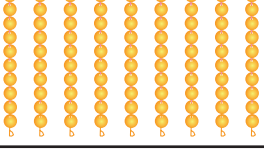
Complete the given table by writing the number and number names.

Beads	Number	Number name	Beads	Number	Number name
	1	one		11	eleven
	2	two			

Learn



Read and write the given number names.

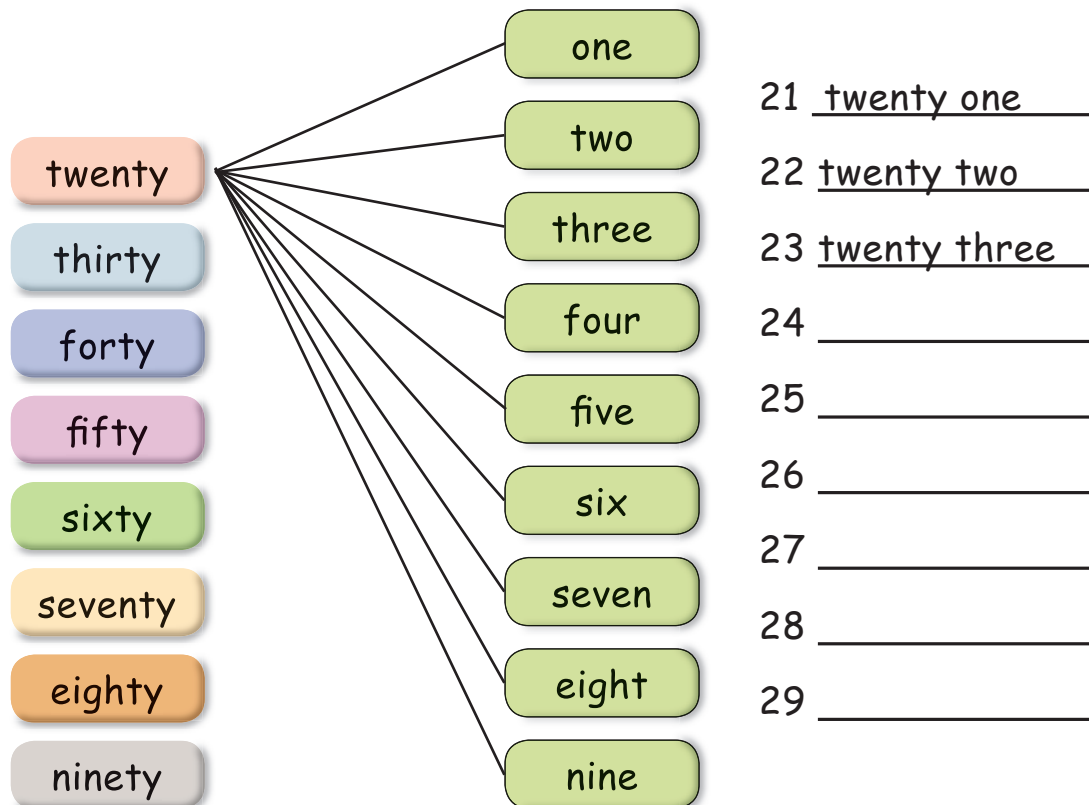
Beads	Number	Read the number name	Write the number name
	10	ten	
	20	twenty	
	30	thirty	
	40	forty	
	50	fifty	
	60	sixty	
	70	seventy	
	80	eighty	
	90	ninety	

Learn

Number name 21-30



To learn to write the number names from 21 to 99. First, we shall familiarize number names from 21 to 29. As we know the numbers 21, 22 and so on upto 29, all have 2 tens and different ones. These numbers are formed by adding 1, 2, 3 and so on upto 9 with 20. Hence we shall write the number names as follows.



We can write number names for numbers upto ninety nine using the above example.

Practice



Write number names from 30 to 99.

30 <u>thirty</u>	35 _____
31 _____	36 <u>thirty seven</u>
32 _____	37 _____
33 _____	38 _____
34 _____	39 _____



40	forty	50	
41		51	fifty one
42		52	
43		53	
44		54	
45		55	
46		56	
47		57	
48		58	
49		59	
60	sixty	70	
61		71	
62		72	
63		73	
64		74	
65		75	seventy five
66		76	
67		77	
68		78	
69		79	
80		90	
81		91	
82		92	
83		93	
84	eighty four	94	
85		95	ninety five
86		96	
87		97	
88		98	
89		99	



Try this



i) Complete the number names.

75 = seventy _____

79 = _____

82 = eighty _____

88 = _____ eight

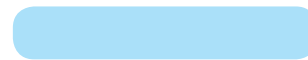
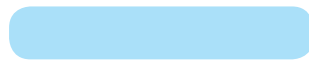
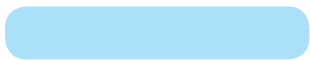
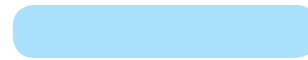
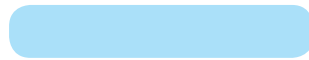
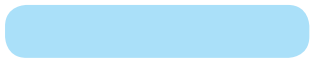
93 = _____ three

41 = _____ one

60 = _____

35 = _____ five

ii) Write the number name for the numbers in the sports T-shirts.



Pleasure Time



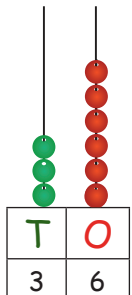
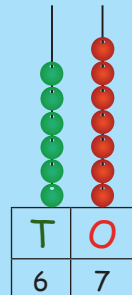
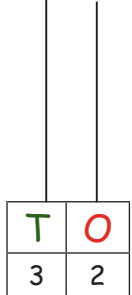

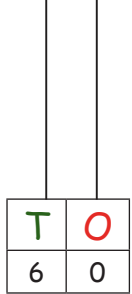
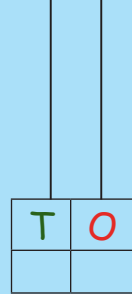
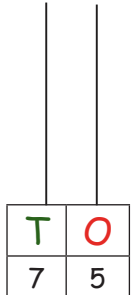
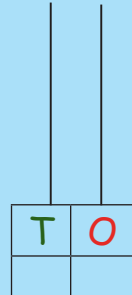
Write the numeral and draw the beads for the given number names.

Number name	Numeral	Beads
twenty five		
thirty six		
forty eight		

2.4 Addition upto 99 with regrouping

Recall

Add the following two-digit numbers and verify your answer using abacus.

<table border="1"> <tr><td>T</td><td>O</td></tr> <tr><td>3</td><td>6</td></tr> <tr><td>+</td><td>3</td></tr> <tr><td></td><td>1</td></tr> <tr><td></td><td></td></tr> </table>	T	O	3	6	+	3		1			<p>Take 36 beads in the abacus.</p>  <p>Add 31 beads to it.</p>  <p>We get 67 beads.</p>
T	O										
3	6										
+	3										
	1										
<table border="1"> <tr><td>T</td><td>O</td></tr> <tr><td>3</td><td>2</td></tr> <tr><td>+</td><td>4</td></tr> <tr><td></td><td>4</td></tr> <tr><td></td><td></td></tr> </table>	T	O	3	2	+	4		4			<p>Take 32 beads in the abacus.</p>  <p>Add 44 beads to it.</p>  <p>We get 76 beads.</p>
T	O										
3	2										
+	4										
	4										
<table border="1"> <tr><td>T</td><td>O</td></tr> <tr><td>6</td><td>0</td></tr> <tr><td>+</td><td>2</td></tr> <tr><td></td><td>0</td></tr> <tr><td></td><td></td></tr> </table>	T	O	6	0	+	2		0			 
T	O										
6	0										
+	2										
	0										
<table border="1"> <tr><td>T</td><td>O</td></tr> <tr><td>7</td><td>5</td></tr> <tr><td>+</td><td>1</td></tr> <tr><td></td><td>0</td></tr> <tr><td></td><td></td></tr> </table>	T	O	7	5	+	1		0			 
T	O										
7	5										
+	1										
	0										

i) $33 + 41 =$

ii) $52 + 27 =$

iii) $63 + 24 =$

iv) $44 + 33 =$

v) $35 + 23 =$

vi) $32 + 27 =$

Travel Through

Blow, Pick and Add



Agaran, Kuralini, Ezhisai and Agilan played, 'Blow, Pick and Add' game using tamarind seeds by forming two teams. Each of the players in the teams were given three chances. Players separate the tamarind seeds from the heap of seeds by blowing and pick only the separated seeds by counting them. While collecting the separated seeds if it touches the other seeds then the player loses his chance and the next player get the chance to play.



Number of seeds picked by each of the players is given in the table.

Team	Name	Chance 1	Chance 2	Chance 3
A	Agaran	15	33	29
	Kuralini	9	37	34
B	Ezhisai	14	23	26
	Agilan	16	38	37

The team which collects maximum number of seeds are declared as winner.

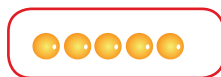
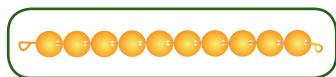
Learn

Add using seeds



What is the total number of seeds collected by team A in chance 1? Team A consists of two players Agaran and Kuralini. From the table, in chance 1, the seeds collected by them are 15 and 9. So, let us add 15 and 9 using beads, followed by the procedure for addition.

Take 15 seeds and 9 seeds as shown below.



Ten



Ones

T	O
1	5
	9

Separate the seeds into the groups of tens and ones. Separate 15 seeds as 1 tens and 5 ones.

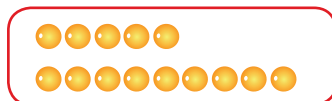
Take 9 seeds as 9 ones.

Step 1: Add ones

We add ones, we get 14 ones.



1 Ten

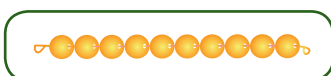


14 Ones

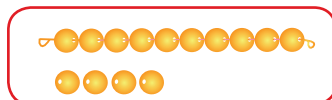
T	O
1	5
	9

Step 2: Regroup ones

Regrouping ones we get 1 ten + 4 ones. So, write 4 in ones place and carry over 1 ten in tens place.



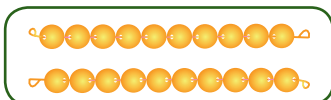
1 Ten



14 Ones

T	O
1	
1	5
	9
	4

Step 3: Add tens



2 Tens



4 Ones

T	O
1	
1	5
	9
2	4

The total number of seeds collected by Team A in chance 1 is 24.

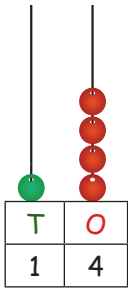
Learn

Add using abacus



What is the total number of seeds collected by team B in chance 1?

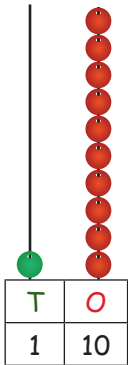
Team B consists of two players Ezhisai and Agilan. They collected 14 and 16 seeds in chance 1. Hence we need to add 14 and 16 using Abacus followed by addition procedure. Put 14 beads in the abacus first and then add 16 beads to it.



	T	O
+	1	4
	1	6

Step 1: Add ones

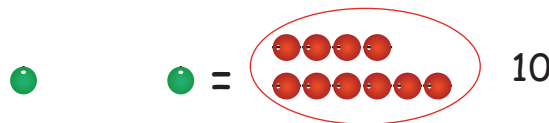
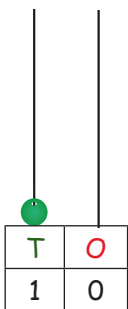
If we add ones, we get 10 ones.



	T	O
+	1	4
	1	6

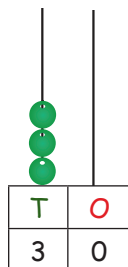
Step 2: Regroup the ones

Regrouping ones we get 1 ten and no ones. So, write 0 in ones place and carry over 1 ten in tens place.



	T	O
	1	
+	1	4
	1	6
		0

Step 3: Add Tens



	T	O
	1	
+	1	4
	1	6
	3	0

Altogether, team B collected 30 seeds in chance 1.

Try This



i) Frame the appropriate question for the number fact given in the table (page number 26) of the 'Blow, Pick and Add' game.

1. $33+37=70$

Agaran collected 33 seeds.

Kuralini collected 37 seeds.

Find the total number of seeds collected by both of them.

2. $26+37=63$

ii) Add the numbers.

T	O
5	4
+	7

T	O
6	2
+	8

T	O
3	7
+	7

T	O
4	9
+	2
	5

T	O
4	7
+	4

T	O
7	8
+	5

T	O
3	7
+	8

T	O
8	6
	5
+	0

Pleasure Time

Fill in the empty boxes given below.

		4					
0	+		=	5	+	2	
		3			+		
		=			=		
					6		
	+	6	=	4	+	5	
					2		



		92		
		44		
				28
	10	14	6	
2	8		0	

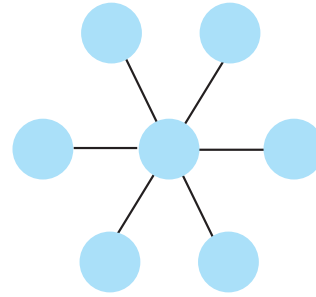
Mental maths

1. A vegetable seller packs 72 cauliflowers on the first day and 18 cauliflowers on the second day. Find the total number of cauliflowers packed in two days?
2. Sujitha counts 24 mango trees on one side of the field and Babitha counts 36 mango trees on the other side of the field. What is the total number of mango trees counted?
3. An ice cream parlour sells 28 ice creams on monday and 53 ice creams on tuesday. How many ice creams does it sell in two days?
4. The teacher checks 12 note books on a day. She checks 18 more note books on the next day. What is the total number of note books checked by the teacher on the two days?
5. A gardener plucks 28 lemons in the morning and 15 lemons in the afternoon. Find the total number of lemons he plucked.

Think Like A Mathematician

Number puzzle

Put the numbers 11, 12, 13, 14, 15, 16 and 17 in the circles so that addition of three numbers in a straight line gives the same total.



Pleasure Time

i) Find the missing digits of the addition facts given below.

	T	O
	2	7
+	6	
Total	8	9

	T	O
	4	
+	3	
Total	7	8

	T	O
		5
+	6	
Total	8	0

	T	O
	3	9
+		
Total	6	4

ii) Raghul gives the sales record sheet to his father to keep a track of the dress materials sold on the first three days of the week.

Day	Morning	Afternoon	Evening
Monday	15 sarees	10 sarees	20 sarees
Tuesday	25 sarees	12 sarees	14 sarees
Wednesday	30 sarees	13 sarees	35 sarees

Look at the sales record sheet and find the total number of sarees he sold on the following days by completing the information.

Monday

	T	O
	1	5
	1	0
+	2	0

Tuesday

	T	O
+		

Wednesday

	T	O
+		

2.5 Subtraction upto 99 with regrouping

Recall

i) Subtract the following two-digit numbers.

	T	O
	5	6
-	1	2

	T	O
	9	0
-	4	0

	T	O
	6	7
-	1	0

	T	O
	2	5
-	1	5

ii) Two squirrels collected nuts in the hollow of tree trunk.
Listen to their conversation.



Can you help the squirrels to find the number of nuts that are left?

Total number of nuts = 58

To find the remaining number of nuts at the end of the first day, we need to subtract 12 from 58.

	T	O
	5	8
-	1	2

Continue subtracting successively for finding the number of nuts that are left at the end of second and third day complete the subtraction procedure.

	T	O
-	1	0

	T	O
-	1	6

Travel Through





Each of the four friends Kavin, Kavini, Thirumagan and Sudar collected tamarind seeds and made geometrical shapes using the seeds.



Keywords
 Subtract
 Difference
 Balance



The number of seeds used by them are tabulated as follows:

Name	Shapes	Seeds taken	Seeds used
Kavin		22	9
Kavini		30	18
Thirumagan		24	16
Sudar		54	38

Kavin takes 22 seeds and used 9 seeds for making a triangle. How many seeds are left with him?

Sudar takes 54 seeds and used 38 seeds to make a rectangle. Find the number of seeds left with her?

Teacher's Note:

Teacher can motivate children to frame different subtraction questions and subtract them using the information given in the above table.

Learn

Subtract using seeds

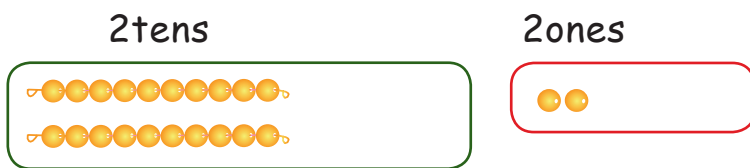


Kavin make a triangular shape using the seeds collected by him. Observe the table, write the subtraction fact to find the number of seeds left with him.

To find the number of seeds left with Kavin, we need to subtract the number of seeds used from the number of seeds taken by him.

Let us subtract 9 from 22 using the seeds followed by the subtraction procedure. Take 22 seeds into groups of tens and ones.

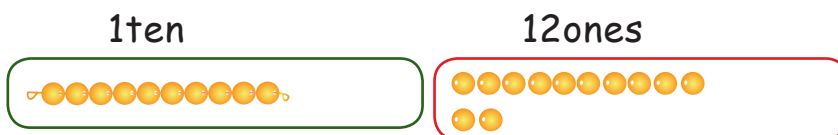
Step 1: Subtract the ones Represent 22 as 2 tens and 2 ones and cancel 9 seeds from ones.



T	O
2	2
	9

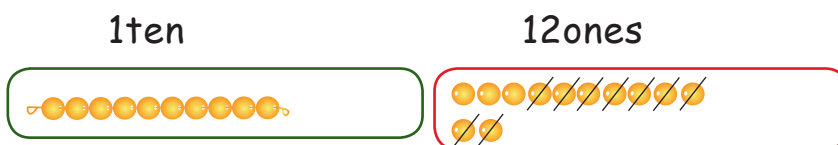
Step 2: Regroup by converting tens to ones

We need to take away 9 seeds so we subtract the ones. We cannot subtract 9 ones from 2 ones. So, we should regroup the seeds to overcome the shortage of seeds. For that 1 ten is changed into 10 ones.



T	O
1	12
2	2
	9

Step 3: Subtract the ones Subtract 9 ones from 12 ones.



T	O
1	12
2	2
	9
	3

Step 4 : Subtract the tens. Now subtract tens. There is no tens to subtract. So 1 ten is to be written.



T	O
1	12
2	2
	9
1	3

Hence, the number of seeds left with Kavin is 13.

Learn

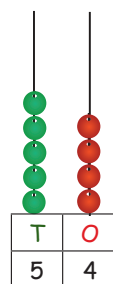
Subtraction using abacus



Sudar collected 54 seeds and used 38 seeds to form a rectangle. How many seeds are left with her?

To find the number of seeds left with Sudar we shall subtract 38 from 54. We can do the subtraction 54-38 using abacus followed by the subtraction procedure. 54 has 5 tens and 4 ones.

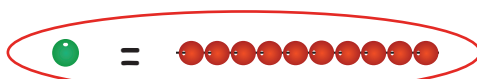
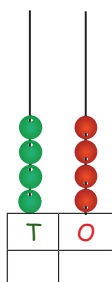
So, put 5 green beads in tens place and 4 red beads in ones place. To take away 38 from 54 we need to take away 3 tens and 8 ones from 5 tens and 4 ones.



T	O
5	4
3	8

Step 1: Subtract ones

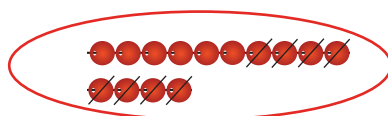
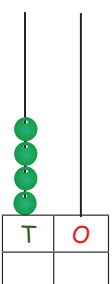
We cannot subtract 8 ones from 4 ones. So exchange 1 ten as 10 ones. So we have



T	O
4	14
5	4
3	8

Step 2: Cancel 8 ones from 14 ones

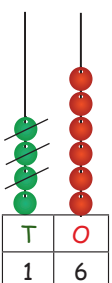
Now we can subtract 8 ones from 14 ones.



T	O
4	14
5	4
3	8
	6

Step 3: Subtract tens

Subtract 3 tens from 4 tens.



T	O
4	14
5	4
3	8
1	6

So, the number of beads left with Sudar is 16.

Practice



1. How many more seeds were used for making rectangle than triangle ?

	T	O
	3	8
-		9

2. Thirumagan collected 24 seeds and used 16 seeds. How many seeds are left with him?

	T	O
-		

3. Kavini used 18 out of 30 seeds collected by her. What is the difference?

	T	O
-		

4. What is the difference in the number of seeds used by kavin and kavini?

	T	O
-		

Practice



Subtract the following two-digit numbers.

T	O
2	2
-	1
8	

T	O
3	7
-	2
9	

T	O
4	0
-	3
5	

T	O
9	2
-	8
0	

T	O
7	0
-	2
7	

T	O
8	4
-	7
8	

T	O
6	3
-	5
6	

T	O
8	0
-	5
2	

$32 - 28 =$

$94 - 59 =$

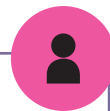
$72 - 46 =$

$46 - 17 =$

$50 - 36 =$

$85 - 67 =$

Think Like a Mathematician



Write the missing numbers in the boxes below.

29	+	<input type="text"/>	=	29	-	<input type="text"/>	=	29
----	---	----------------------	---	----	---	----------------------	---	----

Try This



Find the missing digits in each of the subtraction facts.

T	O
3	8
-	1
	<input type="text"/>
Difference	2
	2

T	O
9	8
-	<input type="text"/>
	0
Difference	1
	8

T	O
<input type="text"/>	<input type="text"/>
-	2
	7
Difference	3
	4

T	O
<input type="text"/>	3
-	1
	<input type="text"/>
Difference	2
	4

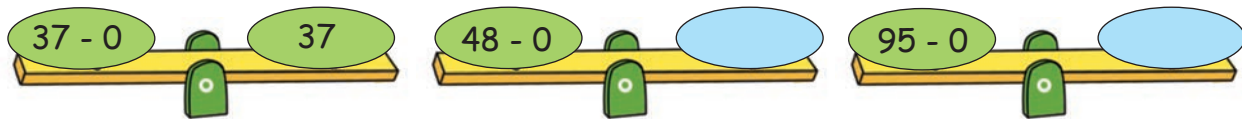
Know more

i) We can check the subtraction process in two ways.
Consider the subtraction fact $53 - 36 = 17$.

i) By adding: $36 + 17 = 53$ ii) By subtracting: $53 - 17 = 36$

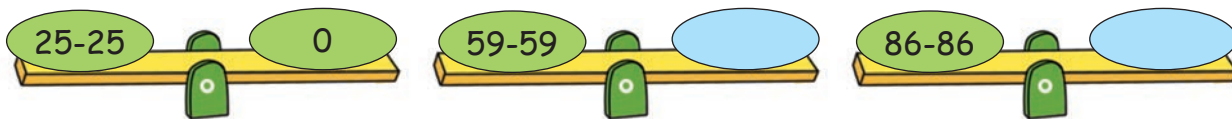
Given two numbers 53 and 36. When 36 is subtracted from 53, we get 17. To verify the answer we can either add the number 36 and 17 to get the given number 53 or subtract 17 from 53 to get the other number 36.

ii) When we subtract 0 from any number we get the same number.



It means we did not take away anything from the number.

iii) When a number is subtracted from itself it gives 0.



It means we have taken away completely from the given number.

Mental maths

1. Kamal fixed 56 tubelights in a party hall. If 18 tubelights were fused, then how many tubelights were used?
2. A factory produced 95 cars in a day. How many cars were unsold if 37 were sold?
3. Kumar walked 23 steps out of 90 steps to reach a shop. How many more steps he has to walk to reach the shop?
4. Kamali had 31 rupees with her. She bought a pen for 15 rupees. She saved the remaining amount. Find the amount saved by her.
5. In a class of 42 students, 26 are girls. How many are boys?



UNIT 3

Patterns



3.1 Block patterns

Travel Through

Hide and Seek



Keywords

Patterns
Shapes
Impressions

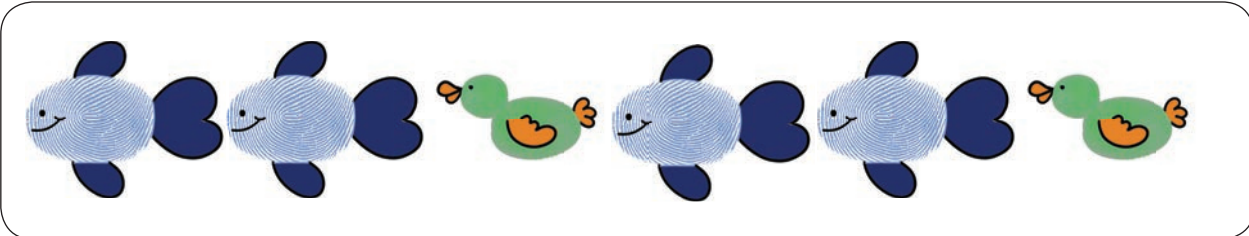
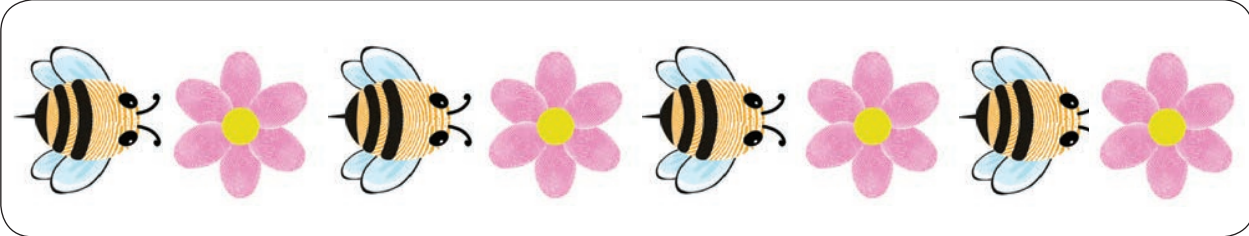
During a rainy season, Inba, the rabbit and his friends (dog, cat, cow, hen, duck, horse) are playing hide and seek. Help him to find his friends who are hiding in the farm.



Learn



We can make creative patterns in shapes using thumb as shown below.



We can create patterns in shapes using potato as given below.



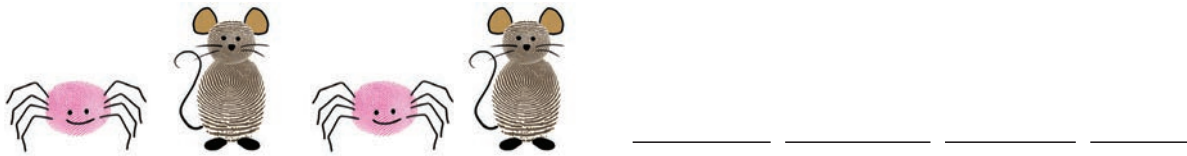
These patterns in shapes are formed by impression of leaf.



Practice



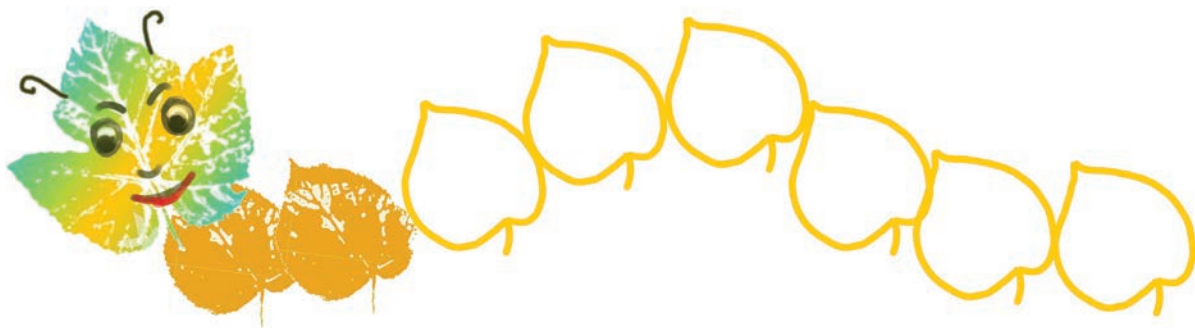
Identify and complete the pattern using thumb.



Complete the flower using lady's finger patterns. One is shown for you.



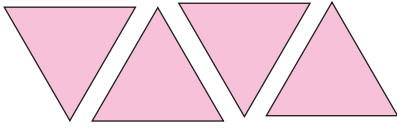
Complete the caterpillar using leaf pattern.

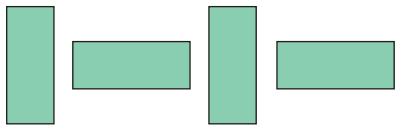


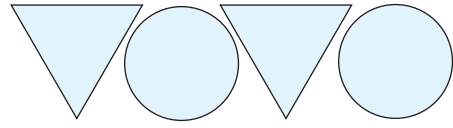
3.2 Patterns in shapes

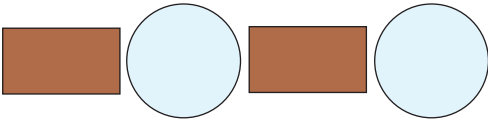
Recall

Observe and continue the patterns.









Keywords
Shapes
Patterns

Travel Through

Pongal



What are the shapes you see in this picture?
Are the shapes repeated? If yes, in what manner?

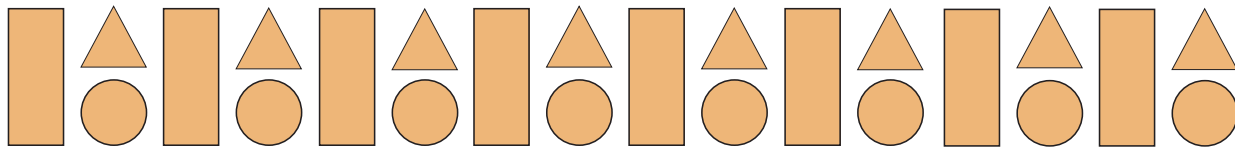
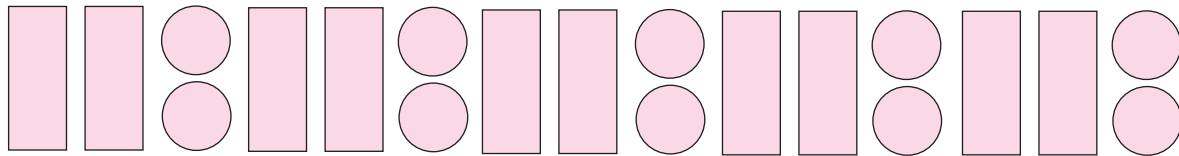
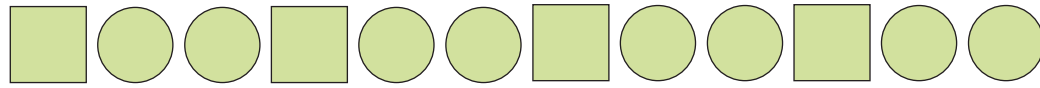
Teacher's Note:

Teacher can encourage children to observe the shapes and discuss the patterns.

Learn



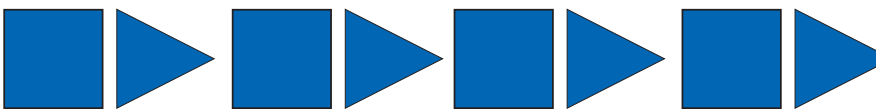
Let us learn the patterns in shapes by observing them.



Activity

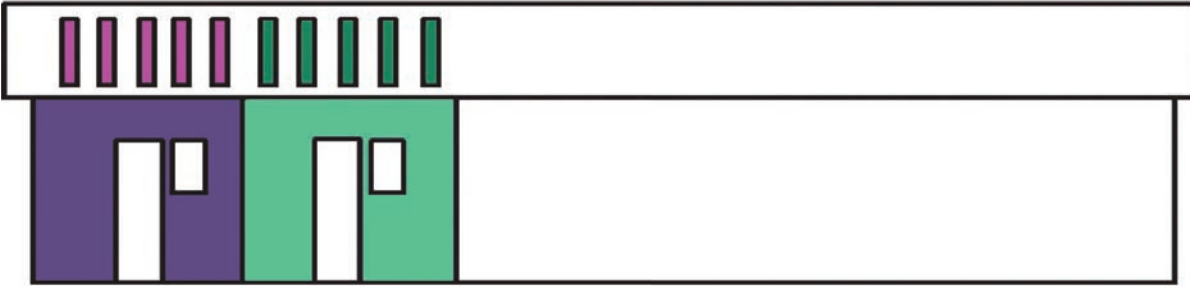
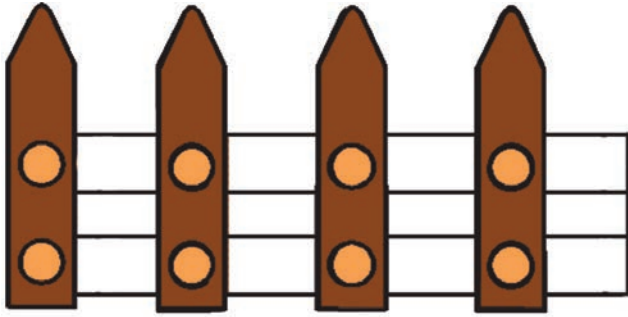


- ❖ Take two sets of shapes each namely square and triangle made of colour paper.
- ❖ Divide the class into two groups.
- ❖ Provide one set of shapes to each group.
- ❖ Now the teacher tells the number of shapes to be used to create patterns. (for example, 1 square, 1 triangle)
- ❖ Then each of the groups create different patterns on the floor using 1 square and 1 triangle.
- ❖ Encourage the groups to create more number of patterns.
- ❖ Continue the activity with different number of shapes.
- ❖ Various patterns created using the triangle and square shapes are shown below.



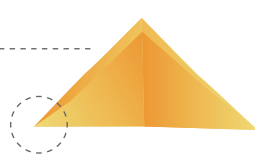
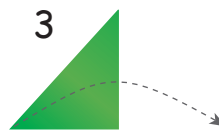
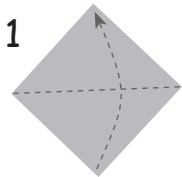
Try This

Observe and complete the following patterns.



Activity

King's crown



Make a King's crown by folding colour papers into triangles as shown in the above picture.

Primary Mathematics - Class II (Term 2)

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