GOVERNMENT OF TAMIL NADU

STANDARD THREE

TERM - I

VOLUME 2

MATHEMATICS
SCIENCE
SOCIAL SCIENCE

A publication under Free Textbook Programme of Government of Tamil Nadu

Department Of School Education

Untouchability is Inhuman and a Crime

Government of Tamil Nadu

First Edition - 2019

(Published under New Syllabus in Trimester Pattern)

NOT FOR SALE

Content Creation

State Council of Educational Research and Training

Printing & Publishing

Tamil NaduTextbook and Educational Services Corporation

www.textbooksonline.tn.nic.in

MATHEMATICS

S.No.	UNITS	Page
Unit 1	GEOMETRY	1
Unit 2	NUMBERS	17
Unit 3	PATTERNS	45
Unit 4	MEASUREMENTS	56
Unit 5	TIME	66
Unit 6	INFORMATION PROCESSING	76

SGEUXT

E-BOOK

5D1PMP

ASSESSMENT

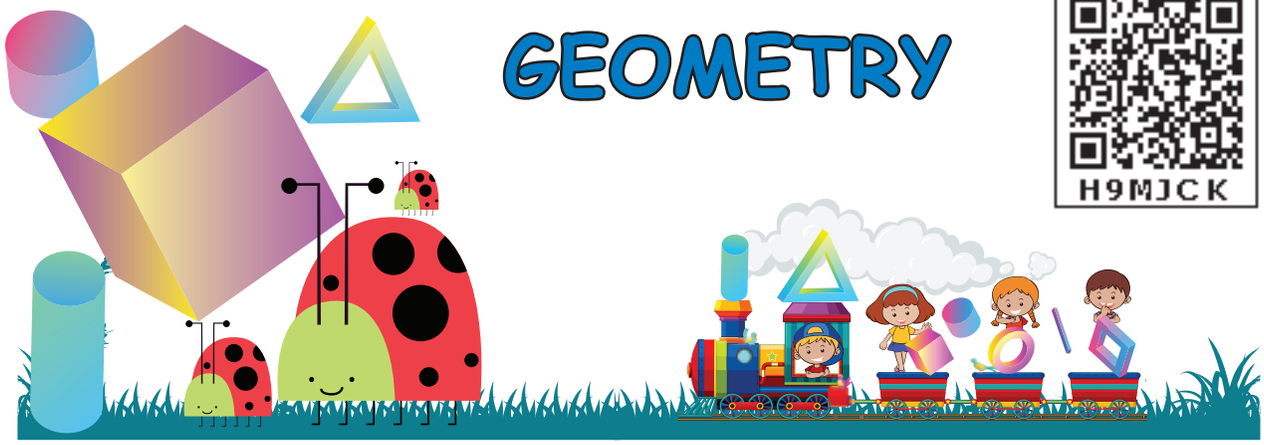
B318_3_MATHS_EM

DIGI-LINKS

UNIT-1

GEOMETRY

H9MJCK



Travel Through Basic Shapes

Square Rectangle Triangle Circle

Let us know the shapes of object around us. Identify the shapes of the objects and Circle the squares with Red, rectangles with Green, triangles with Yellow and circles with Blue colours. Connect the objects of similar shapes.

1.1 Construction of 2D shapes

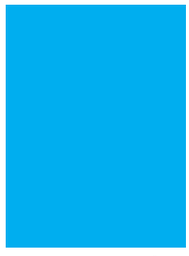
Let us understand the properties of 2D shapes.

Let us know

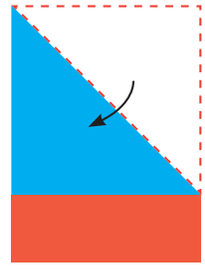
A Square has four sides.
All the four sides are equal.

Let us make a square by folding a paper by following the given steps.

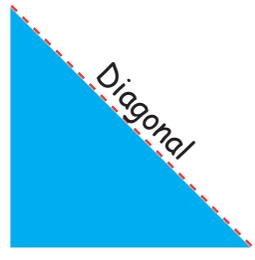
Step 1: Take a paper



Step 2: Fold the paper as shown in the figure.



Shade the extra portion in the bottom with red colour. Red coloured portion will be rectangular in shape. Tear it off and keep it aside. Open up the triangle. What do you observe? You could see a square.



The crease in the middle of the square is called the 'Diagonal of the square'.

You can note that the diagonal divides the square into two trianlges.

Try this

Can you find the other diagonal of the square by folding it the other way? If so how many diagonals can you find for a square?.

Teacher's note: Teacher can guide the children to do this paper folding activity.

Observe the number of sides and corners of a square.

So, a square has **four** sides, **four** corners and **two** diagonals.

Think

Are all the sides of a square equal
What about the diagonals?
Are they equal?

We know from square shape

we shall summarize the properties of a square as follows

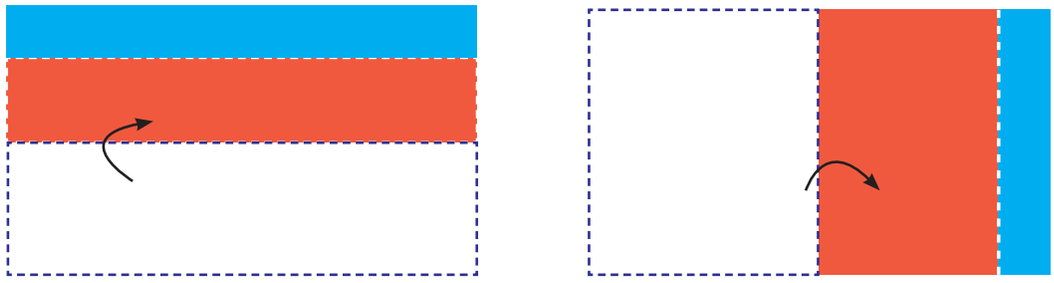
- Square has four sides.
- All the four sides are equal.
- Square has four corners.
- Square has two diagonals.
- The two diagonals are equal.

Step 1: Take the rectangular piece which was kept aside. Observe its sides.

Let us know

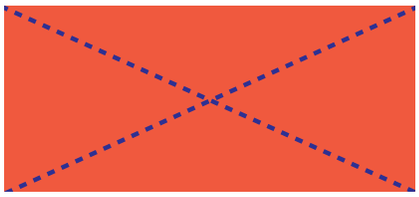
Opposite sides are equal

Fold the opposite sides of the rectangle.
What do you observe? The sides coincide.



Now we get opposite sides equal. Hence in a rectangle, opposite sides are equal.

Fold the opposite corners as we did in the square. Observe the crease. It shows the diagonal of the rectangle.



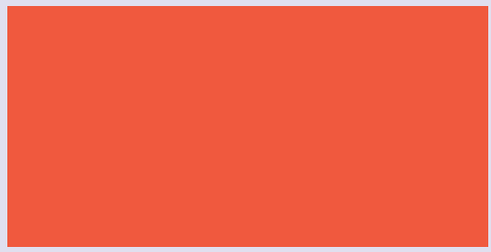
Let us know

Diagonals are equal in rectangle.

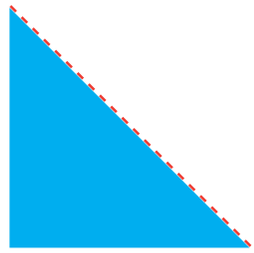
We know from rectangle shape

The properties of a rectangle are as follows

- Rectangle has four sides.
- Two opposite sides are equal.
- Rectangle has four corners.
- Rectangle has two diagonals.
- Two diagonals are equal.



Fold the square along any of these diagonals to form a triangle.



Observe the Sides and corners of the rectangle.

A triangle has **three** sides and **three** corners.

Cut the paper and make triangles of different kind.

Observe the length of the sides of the triangle. length of the sides. Let the children explore the names of different sides of the triangles.

Try This

How many triangles can be made out of this square paper?

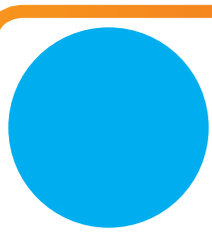
Let us know

Isosceles triangle

Equilateral triangle

Scalene triangle

Teacher's note: Facilitate the children to explore the properties of shapes in various aspects.



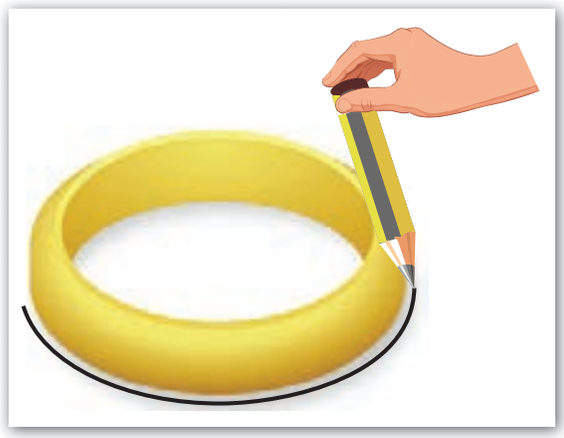
Let us know

Circle is a closed curve

Draw a circle using pencil and Bangle.

Step 1: Place a bangle on the paper as shown in figure.

Step 2: Trace the outline of the bangle with a curved line with the pencil until you reach the starting point, we get a circle.



Now, we get a circle

On observing the circle drawn we shall write the properties of it as follows.

- Circle has no sides.
- Circle has no corners.
- Circle has a center point.

Activity 1

Write the names of few objects in everyday use and mention their geometrical shapes.

Example, table- cuboid

Practice

1) Triangle has _____ corners.

2) Four sides of a square are _____.

3) Circle has _____ sides.

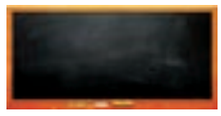
4) Rectangle has _____ diagonals.

5) Opposite sides of a rectangle are _____.

6) Circle has _____ centre point.

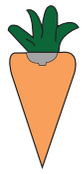
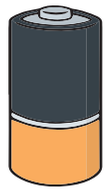
Plane Surface

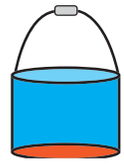
Surface of few objects like walls, floors papers and top of a table are flat. Flat surfaces are otherwise called as plane surfaces or planes. Cubes and cuboids have flat surfaces.

Curved Surface

Surfaces of few objects such as ball, flowerwase, pot are curved. Cone,Cylinder and sphere have curved surfaces.

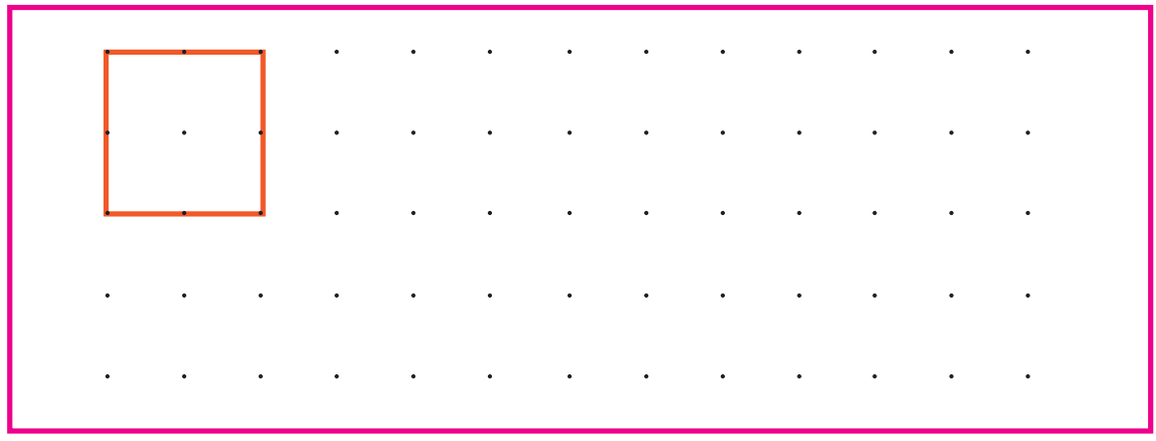






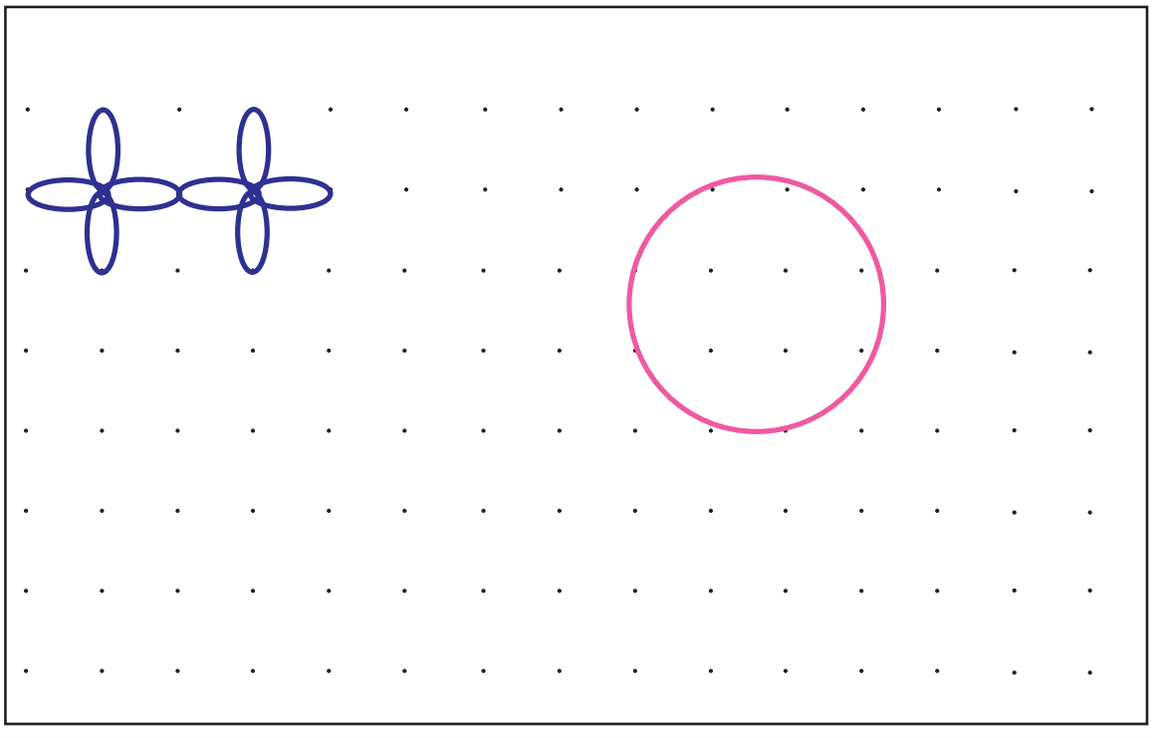

Activity 2

Draw all the 2d shapes in the given dot grid. One is done for you.

A geoboard is a mathematical manipulative board.



Join the dots in the grid using curved lines to make designs of your choice. one is done for you.

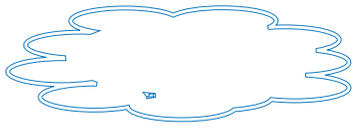


Teacher's note: Teacher can lead the children to make the shapes drawn by them in the dot grid by using rubber band in the Geo board drawn by them in the dot grid

We can see many things around us have straight lines and curved lines.

Activity 3

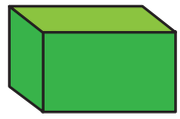
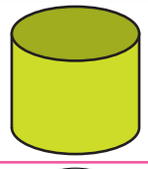
Draw any 5 shapes and put a tick in the given boxes to indicate the type of the lines found in them.

	Curved line	Straight line
	✓	

Teacher's note: Teacher can discuss about the types of lines found in objects in everyday use and enable the children to draw them in above tabular column.

Practice

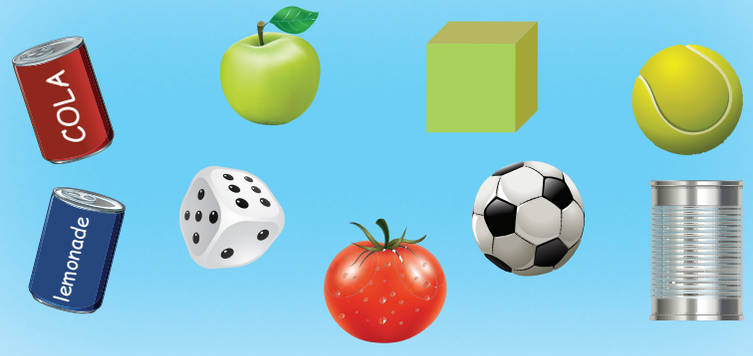
Put a tick mark in the appropriate columns.

Shapes	Plane surface	Curved surface	Plane surface and Curved surface
			
			
			
			
			

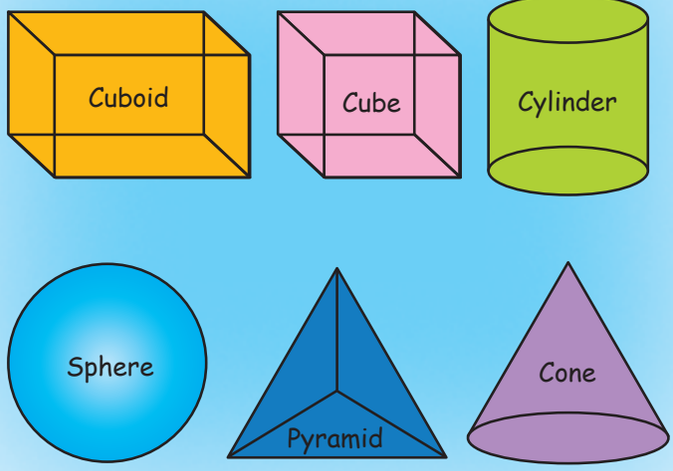
1.2 Construction of-3D shapes.

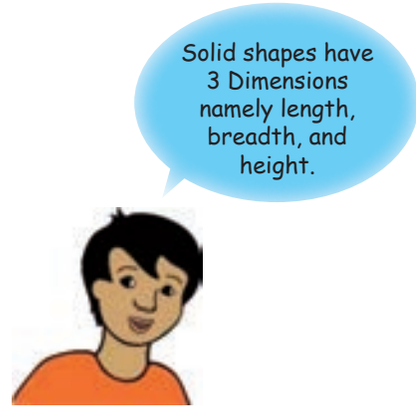
Look at the things around you.

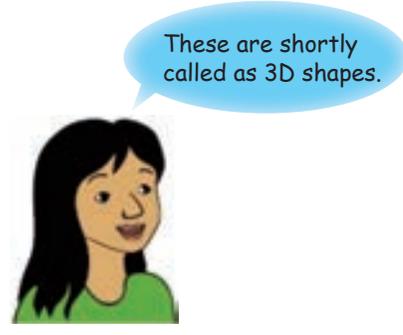
Identify the shapes of the objects. Observe the dimensions of these objects.



3D Shapes







Let us know

A Cube is a solid shape made of squares. It has 6 faces, 12 edges and 8 vertices.

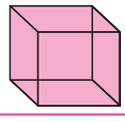
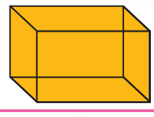
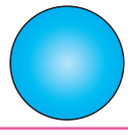
A Cuboid is a solid shape made of rectangles. It has 6 faces, 12 edges and 8 vertices.

A Sphere is a solid shape made of circles. It has 1 faces, no edges and no vertex.

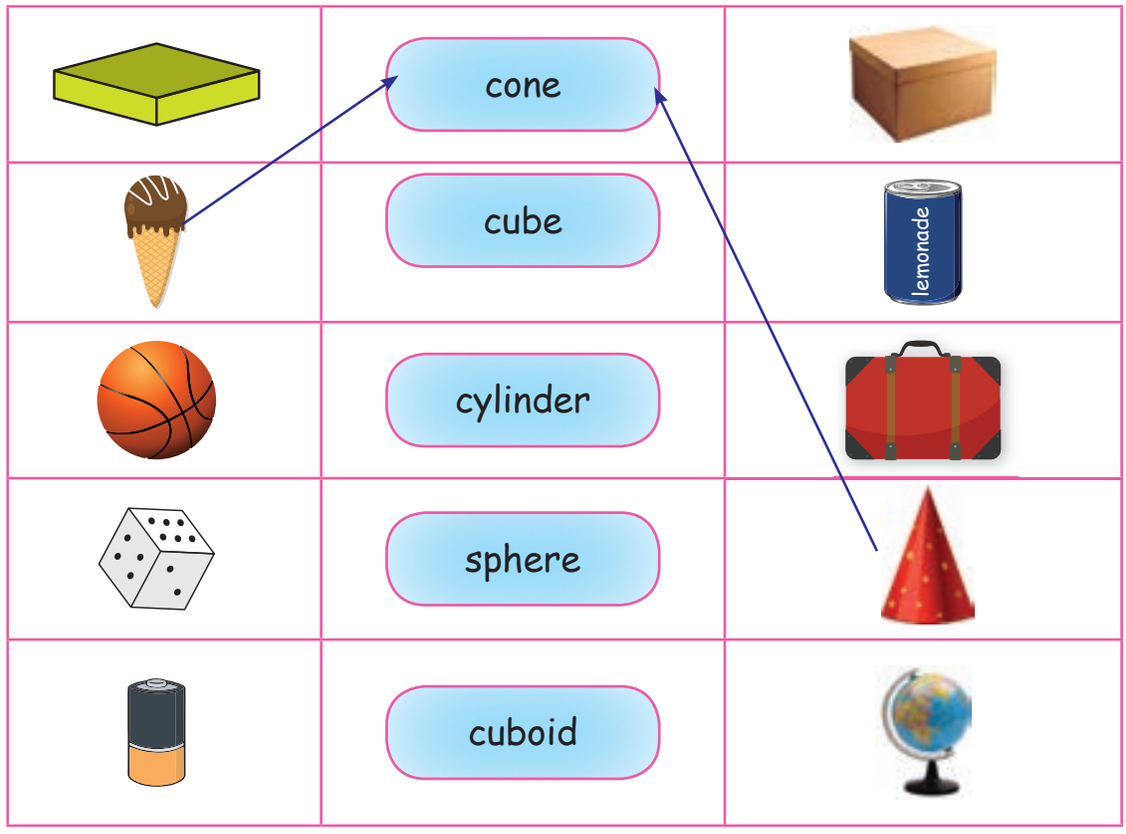
Practice

1. Complete the following table by filing the properties of 2d and 3d shapes.

S. No	Figure	2D or 3D	Shape name	Number of sides	Number of edges	Number of corners	Number of diagonals
1		2D	Rectangle				
2		2D	Traingle				
3		2D	Circle				

4		2D	Square				
5		2D	Traingle				
6		2D	Rectangle				
7		3D	Cube				
8		3D	Cuboid				
9		3D	Sphere				

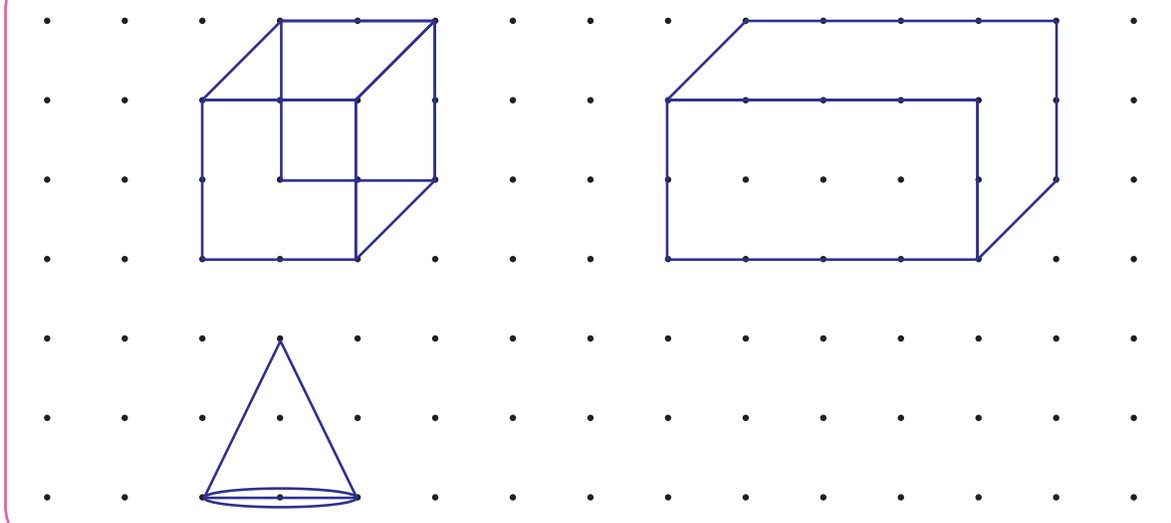
2. Match the following.



Teacher's note: Teacher shall facilitate the children to draw the front and side views of 3d shapes by providing the objects.

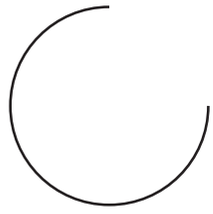
Join the dots to form 3D shapes.

Activity 4

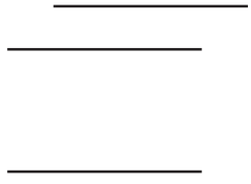


Activity 5

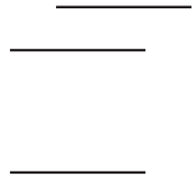
Complete solid shapes and colour it.



Sphere

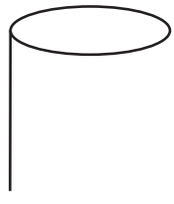


Cuboid

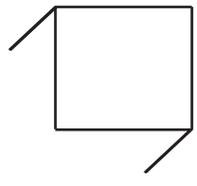


Cube

Cone



Cylinder



Cube

Teacher's note: Teacher can guide the children to draw 3D object and give the real object of the 3D shapes, so that the children can touch, feel and find out the answers.

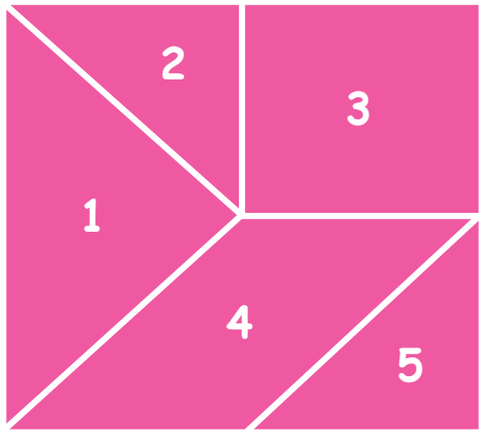
1.3 Tangram

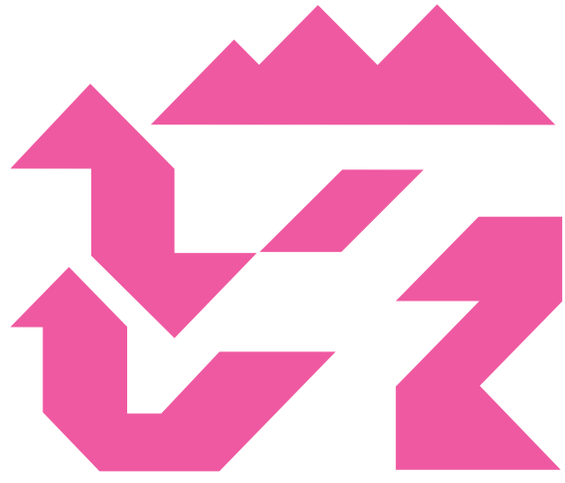
Create shapes using tangram pieces

Tangram is a traditional Chinese puzzle made of a square divided into seven pieces (one parallelogram, one square and five triangles) that can be arranged to match particular designs. We can make many figures of animals people and other things. simplified version of tangram puzzle is available with five pieces also.

5 pieces tangram

look at 5 pieces of the tangram. cut the 5 pieces from a paper with help of your elders and try make the given shapes out of it.





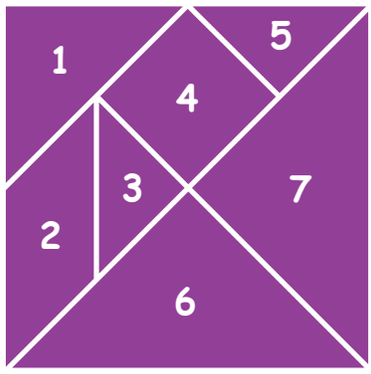
Try this

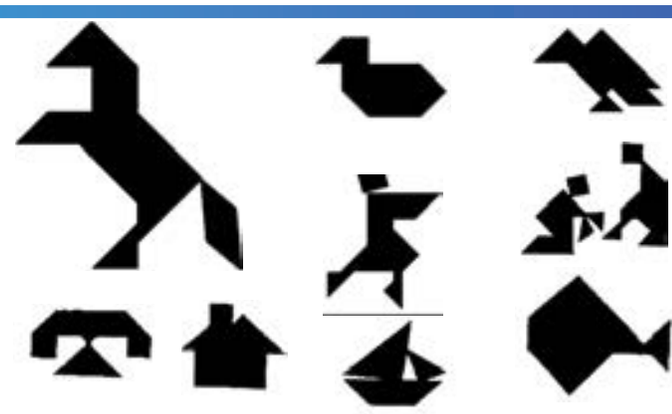
How many triangles are there in a five piece tangram set? Are they equal in size?

7-pieces tangram

Here is the picture of a seven-piece tangram. You can cut out these pieces from a paper and put them together in different ways to make some very interesting shapes.

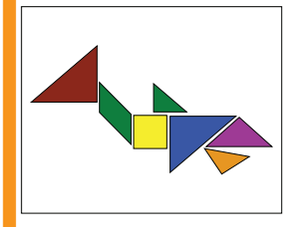
Teacher's note: Teacher can enable the children create various shapes using the tangram sets.

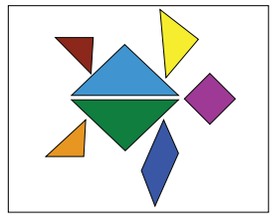


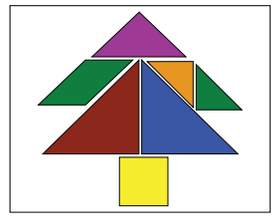


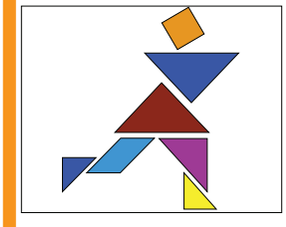
Practice

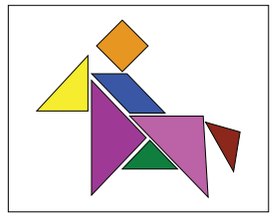
Number the pieces in each of these figures according to the numbering in the tangram puzzle.

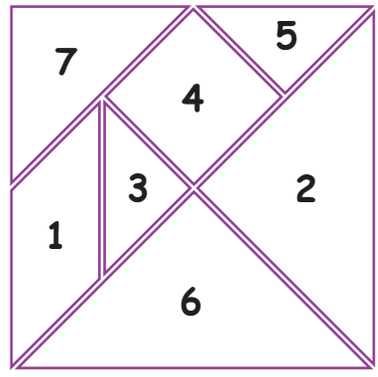








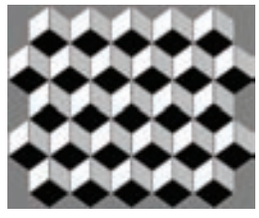




Tile a given region using a tile of given shape.

When you fit individual tiles together with no gaps or overlaps to fill a flat space, you have a **tiled floor**.

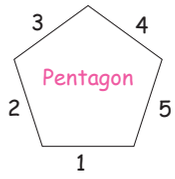
Observe the pictures

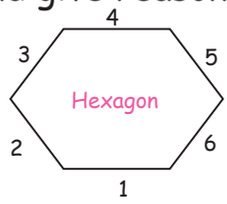


Baked clay in the form of a shape that is used to cover surfaces is called **tile**.

Let us Explore

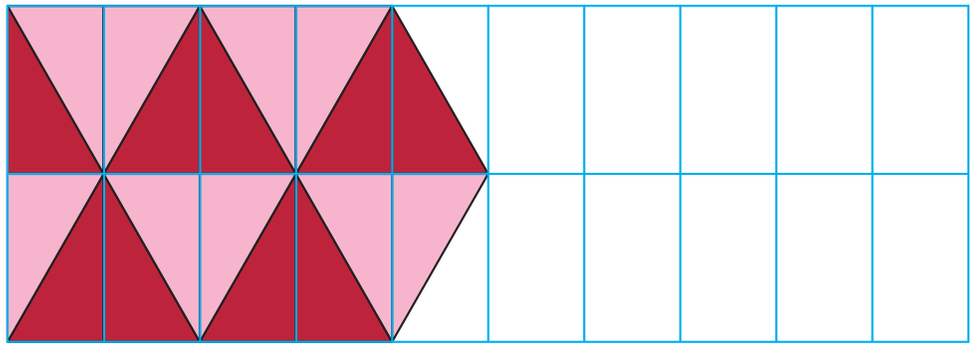
There are some shapes that cannot be used to make tiling patterns why? what are they? Name them and give reasons.

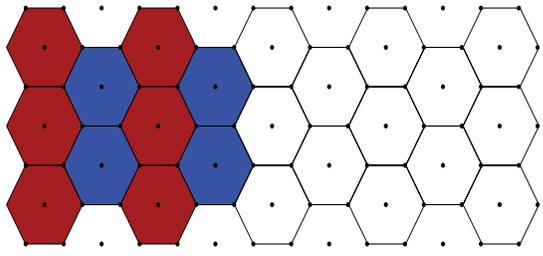


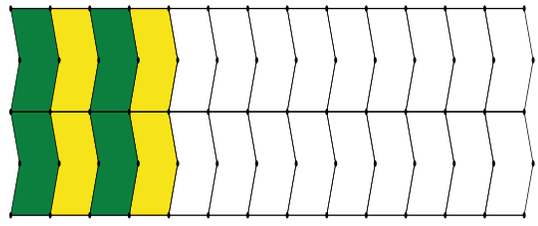


Practice

Complete the following tiling pattern.



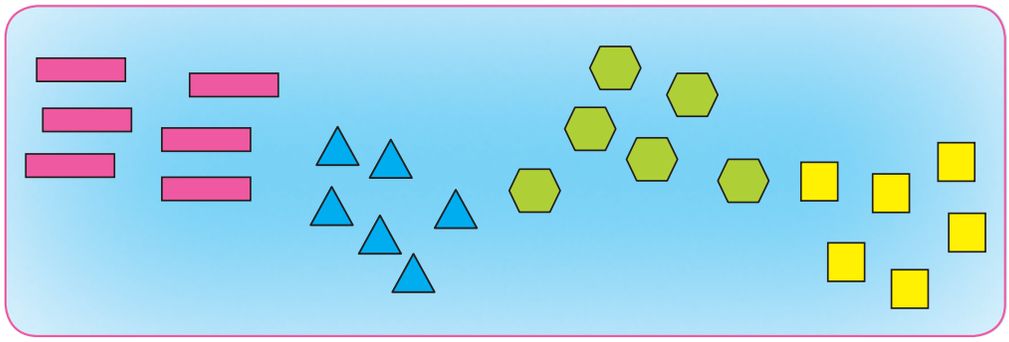




When we repeat individual tiles or patterns together with no gaps or overlaps to fill a flat space, the arrangement is called tessellation (or tiling).

Activity 6

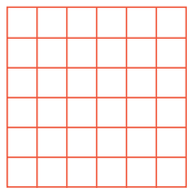
Tessellate a new region using the following shapes:



Triangles, squares, hexagons are the regular polygons tessellate in the plane.

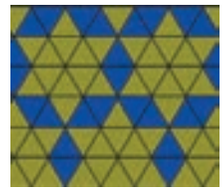
Here

A tessellation of squares



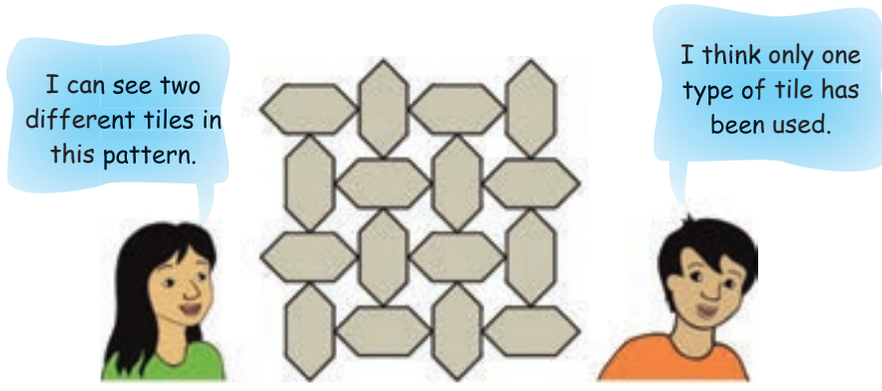
A tessellation of hexagons

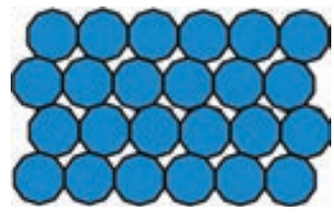
A tessellation of triangles



Distinguish between shapes that tile and that do not tile.

Observe the following pictures that do not tile.





U69E2G

Though pentagons and heptagons are regular polygons they do not tessellate.

Activity 7

Ask the children to draw tessellate in the plane region using square and pentagon.

UNIT-2

NUMBERS

72V8RC

Travel Through

1. Look at the picture and answer the following.

Flowers | Number and Number name of flowers

_____

_____

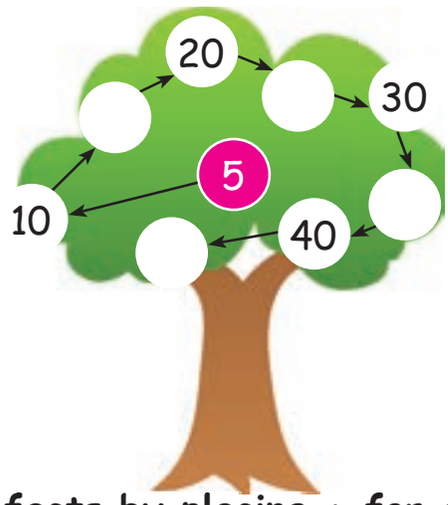
_____

2. Fill in the blanks in each of the figures with missing numbers.

a. 51 ____ ____ 55 ____ ____ ____ 60

b. ____ 75 ____ ____ 77 ____ ____ 79

c.



3. Complete the given facts by placing + for addition and - for subtraction.

9 ___ 3 = 12	92 ___ 20 = 72
80 ___ 11 = 91	12 ___ 3 = 9
56 ___ 21 = 35	75 ___ 17 = 92

2.1 Numbers sequence upto 1000.

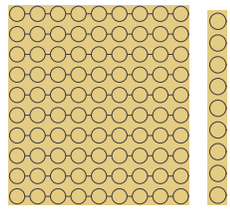
- ❒ Numbers 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9 are one digit numbers.
- ❒ Numbers from 10 to 99 are two-digit numbers.

99 is the biggest two-digit number.
10 is the smallest two-digit number.

Formation of the numbers such as 10,100 and 1000.

when 1 is added with 9 ,we get 10.

Tens	Ones
	9
	1
1	0



	Hundred	Tens	Ones
		9	9
+			1
	1	0	0

When we add 1 with 99 we get 100. The numeral 100 represents the number "HUNDRED", the smallest three digit number. One hundred has 10 tens.One hundred has 100 ones.

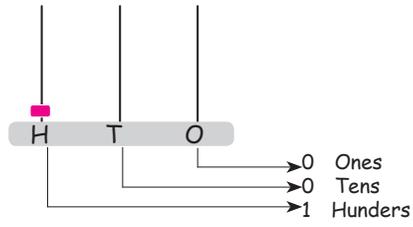
	Th	H	T	Ones
		9	9	9
+				1

	Th	H	T	Ones
		9	9	9
+				1
	1	0	0	0

The numeral 1000 represents the number "Thousand", the smallest four digit number. One thousand has 10 hundreds.one thousand has 100 tens.

2.2 Read and write all three digit numbers and number names.

We shall represent 100 in an abacus as shown below.



	H	T	O
	1	0	0

No beads in the ones place shows 0 ones.

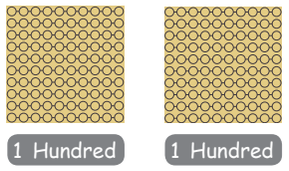
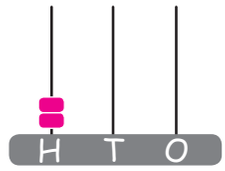
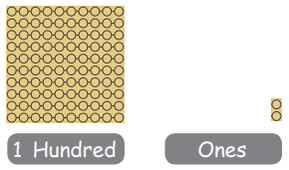
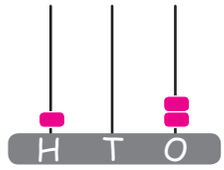
No beads in the tens place shows 0 Tens.

1 bead in the hundred place shows 1 hundred.

The place value higher than tens place is hundreds place.

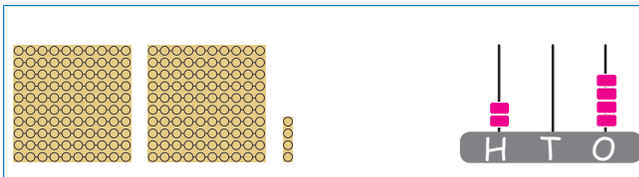
Hundred (or) 100 is the smallest three digit number.

Examples:

Number Blocks (Maths kit)	Abacus	Numeral form	Number name
		H T O 2 0 0	Two hundred
		H T O 1 0 2	One hundred two

Activity 1

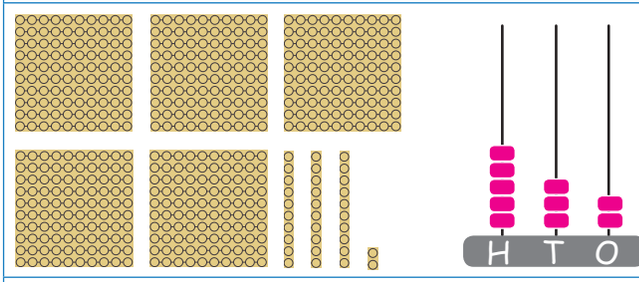
10 ones	=	1 Ten
10 Tens	=	1 Hundred
10 Hundreds	=	1 Thousand.



H T O

Number Blocks (Maths kit)

Two hundred four

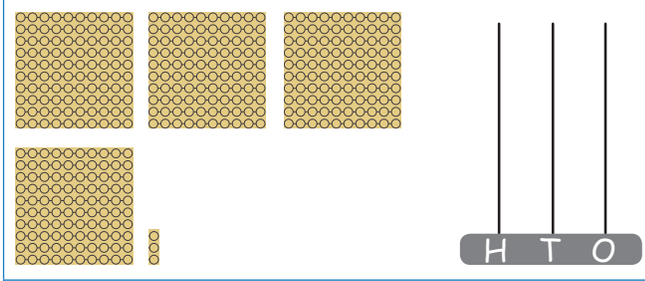


H T O

Abacus

_____

_____

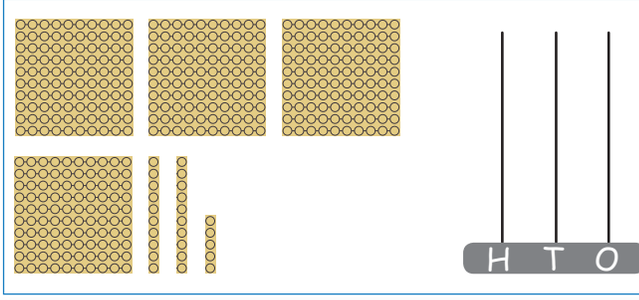


H T O

Numeral form

_____

_____



H T O

Number name

_____

_____

Teacher's note: Let the children explore to represent many 3 digit numbers by using math kit.

Read and write the numbers from 101 to 200.

101	111	121	131	141	151	161	171	181	191
102						162		182	
		123							193
104							174		
	115			145					
106								186	
			137			167			197
108							178		
110	120	130	140	150	160	170	180	190	200

Teacher's Note : Teacher can give practice to children to write the numbers upto 1000.

The number name of the numeral 101 is written by adding one hundred with one as one hundred and one.For the numeral 199 it is written as one hundred and ninety nine.

Activity 2

Write the numerals for the given number names.

Number name	Numerals
Five hundred and thirty five	535
One hundred and seven	107
One hundred and twenty eight	
Six hundred	
Nine hundred and five	

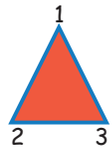
Activity 3

Write the number names for the following Numerals.

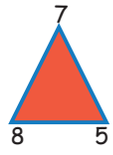
Numerals	Number name
150	One hundred and fifty
225	
306	
535	
907	Nine hundred and seven
992	

Activity 4

Form three digit numbers using each of the given numbers only once.



123



785

Place value of a numeral in the given number.

write the place value of the underlined digit in the given number.

Numeral	Place value	Number name of the underlined digit
2 <u>9</u> 6	Tens	Ninety
29<u>6</u>	Ones	Six
<u>2</u>96	Hundreds	Two hundred
1 <u>9</u> 6	Tens	Ninety
<u>4</u> 1 7		
6 3 <u>8</u>		
<u>9</u> 4 5		

find the numbers represented in the abacus by writing their place value.

3 - Hundreds

4 - Tens

2 - Ones

$300 + 40 + 2$

342

Expand the given numbers into ones tens and hundreds

Number	Expanded Form
246	$200 + 40 + 6$
570	$500 + 70 + 0$
637	
603	
989	

Write the simplified form of the number of the given expansions.

Expanded form	Simplified form
$300 + 90 + 8$	398
$200 + 50 + 6$	
$900 + 80 + 5$	
$500 + 50 + 7$	

Skip counting starting from any given number.

Example:

1. 

→ Skip counted in ones

2. 

→ Skip counted in twos

complete the following by skip counting in 5s ,10s and 100s.

1. 250, 255, ___, ___, 270, ___

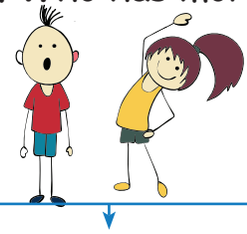
2. 500, 510, ___, 540, ___, ___

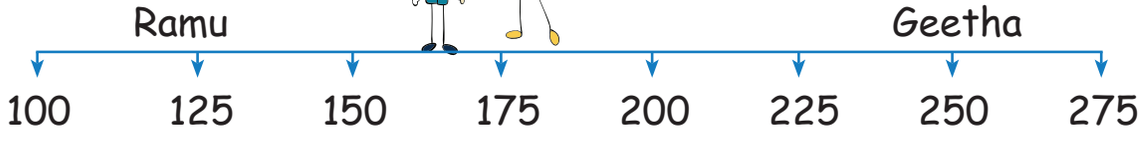
3. 100, 200, ___, ___, ___, 600

2.3 Comparison of numbers

Odd and Even numbers

Ramu has 125 groundnut chocolates and Geetha has 200 groundnut chocolates. Who has more?





Odd numbers and even numbers

Even numbers

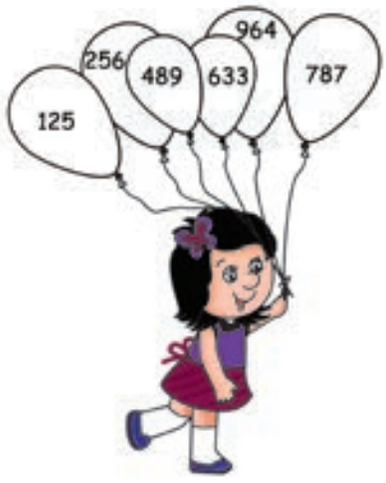
0 2 4 6 8 10 12

Odd numbers 1 3 5 7 9 11 13

> Numbers ending with 1, 3, 5, 7 and 9 are called ODD numbers. Numbers ending with 0, 2, 4, 6 and 8 are called EVEN numbers.

Activity 5

Colour the balloons with odd number by yellow and even number by Red.



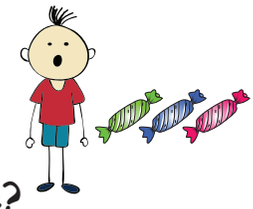
In number sequence, after every odd number there is an even number. Similarly after every even number there is an odd number.

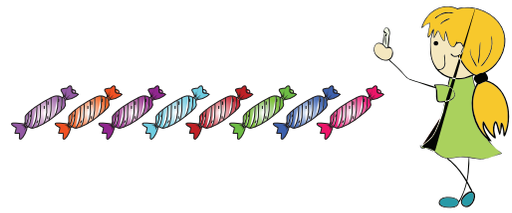
Activity 6

Circle the even numbers	Circle the odd numbers
8, 69, 70, 84, 99	7, 26, 33, 61, 84
112, 131, 156, 170, 186	105, 116, 125, 142, 151
226, 300, 303, 440, 478	219, 232, 245, 357, 390
542, 570, 575, 600, 610	540, 555, 557, 603, 609
931, 948, 952, 982, 999	918, 919, 935, 953, 998

Greater and smaller numbers

Amuthan has 3 chocolates and his sister Meenakshi has 8 chocolates.





Who has more?

In a number line 3 comes before 8 or 8 comes after 3.

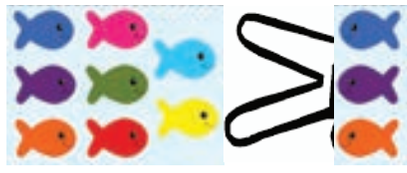
3 is smaller than 8 or

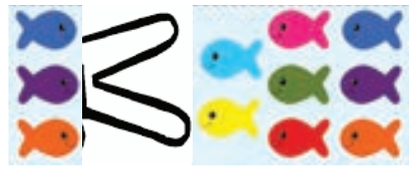
8 is greater than 3

Meenakshi has more chocolates.

Know more
'0' does not have any value at the beginning of a number.

Using symbols





8 is greater than 3

we write $8 > 3$

91 is greater than 49

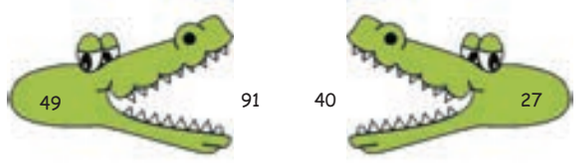
we write $91 > 49$

3 is smaller than 8

we write $3 < 8$

27 is smaller than 40

we write $27 < 40$



1. Comparison of numbers with different digits.

The number which has more digits is a greater number.
The number 115 has 3 digits and 89 has only 2 digits. So 115 is **greater than** 89. We write 115 > 89.

Compare 115 and 89

H	T	O
1	1	5

H	T	O
	8	9

2. Comparison of numbers with equal digits.

If the number of digits are equal, compare the digit in the hundreds place. The number which has a greater digit in the hundreds place is greater. 2 is greater than 1. So, 250 is greater than 160. We write 250 > 160. We can also say 160 < 250.

Compare 160 and 250

H	T	O
1	6	0

H	T	O
2	5	0

Look at the hundreds place

3. If the digits in the hundreds place are same, compare the digits in the tens place. The number which has the greater digit in the tens place is the greater number.

The digit in the hundred place are the same. Compare the digits in the tens place. 5 is greater than 4. so, 151 is greater than 143. We write 151 > 143. We can also say 143 < 151.

H	T	O
1	4	3

H	T	O
1	5	1

4. **If the digits in the hundred and the tens place are same, compare the digits in the ones place. The number which has the greater digit in the ones place is the greater number.**

The digits in the hundred place and tens place the same.

Comparing the digits in the ones place.

Compare 141 and 148

H	T	O
1	4	1

H	T	O
1	4	8

8 is greater than 1

So the number 148 is greater than 141.

We write 148 > 141

We can also say 141 < 148.

5. **Comparing numbers with same value in all the digits**

The digits in the hundreds places, tens place and ones place are same.

So, 536 = 536

H	T	O
5	3	6

H	T	O
5	3	6

Try this

Put <, >, and = in the boxes provided.

103 ☐ 438

250 ☐ 069

408 ☐ 308

710 ☐ 710

614 ☐ 618

719 ☐ 917

The greatest three digit number is 999.
The smallest three digit number is 100.

Ascending and Descending order.

111, 112, 113, 114, 115

When we write the numbers from smaller to greater, we call it **"Ascending order"**

When we write numbers from greater to smaller, we call it **"Descending order"**

Try this

Write the even numbers between 245 and 255 in descending order.

Example:

We arrange the numbers 235, 230, 238 in ascending order and in descending order.

Ascending order

230 < 235 < 238
230, 235, 238

Descending order

238 > 235 > 230
238, 235, 230

Try this

1. Arrange the following numbers in ascending order.

a. 55, 63, 40, 8

b. 217, 201, 215, 219

c. 50, 405, 109, 600

d. 785, 757, 718, 781

2. Arrange the following numbers in descending order.

a. 212, 503, 369, 60

b. 051, 100, 810, 167

c. 323, 303, 332, 33

d. 205, 210, 290, 300

2.4 Ordering

consider the numbers 2 and 7 By using these numbers we shall form the greatest and smallest two digit numbers.

The two-digit numbers formed using 2 and 7 are 27,72,22,77. (77 is the greatest and 22 is the smallest 2 digit numbers)

Similarly, 7, 4 and 8 are given numbers. By using these numbers shall we form the greatest and smallest three digit number.

444, 478, 487, 748, 777, 784, 847, 874 888,and so on

Arrange the given digits from the smallest number to greatest number, we get Ascending order.

478, 487, 748, 784, 847, 874 and so on

Arrange the above from the greatest number to smallest number, we get Descending order.

874, 847, 784, 748, 487,478

888 is the greatest number and 444 is the smallest number.

Practice

1. **Form greatest and smallest numbers using the given digits (without repetition of digits)**

Numbers	Greatest number	Smallest number
5, 0, 9		
6, 3, 7		
4, 0, 1		
9, 9, 0		

2. **Complete the following number sequence.**

111, 222, 333, 444, ……, ……, ……

150, 155, 160, 165, ……, ……, ……

210, 310, 410, 510, ……, ……, ……

333, 433, 533, 633, ……, ……, ……

3. **Find the numbers.**

a. 4 Hundreds; 5 Tens; 0 Ones

b. 3 Hundreds; 0 Tens; 1 One

c. 5 Hundreds; 8 Tens; 9 Ones

d. 8 Hundreds; 5 Ones

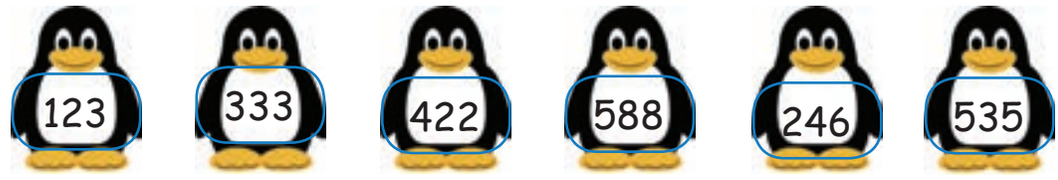
4. **Write the number names.**

Numeral	Number name
156	
340	
408	
696	

5. **write the place value for the bubbled digits.**

a. (1) 9 8 b. 9 0 (8) c. 5 (4) 3

6. **Write down the odd and even numbers seperately.**



a. Odd numbers:

b. Even numbers:

7. write <, >, = in the box.

105 ⬡ 150	761 ⬡ 683
419 ⬡ 547	660 ⬡ 660
394 ⬡ 387	983 ⬡ 990

8. Write the numbers in ascending and descending order.

326 323 301 356 365 399 308 340

Ascending order: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Descending order: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

9. Using the numerals 6, 8 and 5 only once write the greatest and smallest 3 digit number.

Greatest number: ☐ Smallest number: ☐

2.5 Addition and Subtraction.

PH9MRU

Addition

Recall

a. 70 + 35 = ☐

b. 68 + 23 = ☐

c. 51 + 37 = ☐

d. 55 + 18 =

e. 56
+33
_____
_____

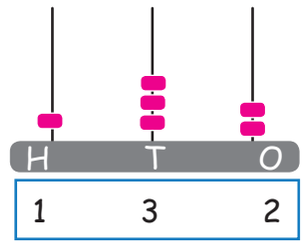
f. 57
+33
_____
_____

g. 70
+35
_____
_____

Addition of Three Digit Numbers (Without Regrouping)

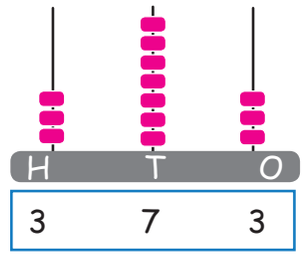
Example: Add 132 and 241

	H	T	O
	1	3	2
+	2	4	1



So using abacus, first put 132 as:

then add 241, as 2 more in hundred, 4 more in tens and 2 more in ones.



Answer of addition of two or three numbers is called sum of the numbers.

sum = 373

Example: Add 342 + 515 + 12

step 1: add ones

	H	T	O
	3	4	2
+	5	1	5
		1	2

step 2: add tens

	H	T	O
	3	4	2
+	5	1	5
		1	2
			9

step 3: add hundreds

	H	T	O
	3	4	2
+	5	1	5
		1	**2**
		6	**9**

	H	T	O
	3	4	2
+	5	1	5
		1	**2**
	8	**6**	**9**

Sum = 869

Try this

Add the following numbers.

1.

	H	T	O
	4	4	1
+	3	2	6
			2

2.

	H	T	O
	5	6	2
+	2	0	4

3.

	H	T	O
	8	1	5
+	1	5	3
		2	1

4. 34 + 452+ 3

Addition of Three Digit Numbers (With Regrouping)

Example: Add 556 and 194

Add ones

	H	T	O
		1	
+	5	5	6
	1	9	4
			0

$6 + 4 = 10$ Ones $= 1$ Ten

With regrouping.

10 ones $= 1$ Ten $+ 0$ ones

So, we put 0 in ones place and carry over 1 to ten place.

Add Tens

	H	T	O
		1	
+	5	5	6
	1	9	4
		5	0

$1 + 5 + 9 = 15$ tens

15 tens $= 1$ hundred $+ 5$ tens

So, we put 5 in tens place. And carry over 1 to hundred place.

Add hundreds

	H	T	O
	1	1	
+	5	5	6
	1	9	4
	7	5	0

$1 + 5 + 1 = 7$ hundred

So, we put 7 in hundreds place.

Sum = 750

Try this

Add the following numbers.

a.
$$\begin{array}{r} 709 \\ +\ 261 \\ \hline \end{array}$$

b.
$$\begin{array}{r} 339 \\ +\ 202 \\ \quad\ 28 \\ \hline \end{array}$$

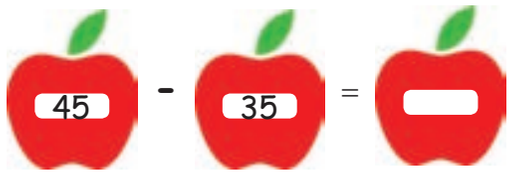
c.
$$\begin{array}{r} 508 \\ +\ 562 \\ \quad 440 \\ \hline \end{array}$$

d. 921+20+61

e. 28+195+6

SUBTRACTION

Recall:

a. 

b. 

c. 

d. 99 - 55 = ____

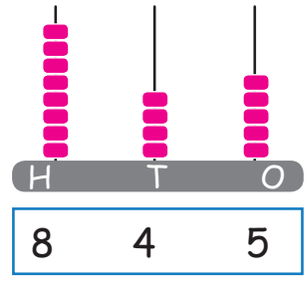
e. 63
- 17
_____
_____

f. 70
- 9
_____
_____

Subtraction of Three Digit Numbers (Without Regrouping)

Example: Subtract 344 from 845

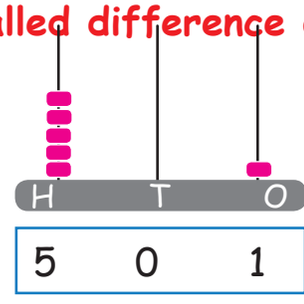
	8	4	5
−	3	4	4



Now, remove 3 in hundred, 4 in tens and 4 in ones as

Answer of subtraction of two numbers is called difference of the two numbers.

Difference = 501



Example: Subtract 213 from 735

	H	T	O
	7	3	5
–	2	1	3

Subtract **ones**

	H	T	O
	7	3	5
–	2	1	3
			2

Subtract **tens**

	H	T	O
	7	3	5
–	2	1	3
		2	2

Subtract **hundreds**

	H	T	O
	7	3	5
–	2	1	3
	5	2	2

Difference = 522

Try this

Subtract the following numbers.

a.

	H	T	O
	5	4	4
–		2	3

b.

	H	T	O
	7	6	5
–	4	0	1

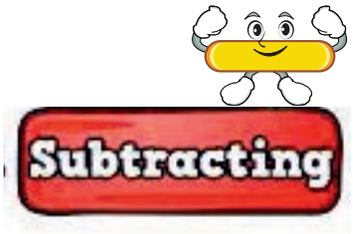
c.

	H	T	O
	8	4	5
–	2	3	4

Subtraction of Three Digit Numbers (With Regrouping)

Example: Subtract 138 from 264

	H	T	O
	2	6	4
–	1	3	8



Step:1

	H	T	O
		5	14
–	2	~~6~~	~~4~~
	1	3	8
			6

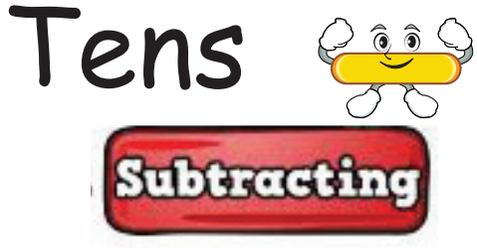
We cannot subtract 8 from 14. so regroup 1 ten into 10 ones.

$14 - 8 = 6$

Step:2

	H	T	O
		5	14
–	2	~~6~~	~~4~~
	1	3	8
		2	6

$5 - 3 = 2$



Step:3

	H	T	O
	1	5	14
–	2	~~6~~	~~4~~
	1	3	8
	1	2	6

$2 - 1 = 1$

Try this

Subtract the following numbers.

a.

$$\begin{array}{r} 540 \\ -\ 353 \\ \hline \end{array}$$

b.

$$\begin{array}{r} 765 \\ -\ 438 \\ \hline \end{array}$$

c.

$$\begin{array}{r} 805 \\ -\ 246 \\ \hline \end{array}$$

Addition and subtraction by using standard algorithm

Example: Add 675 and 136

Step:1

Add ones:

	H	T	O
		1	
	6	7	5
+	1	3	6
			1

5 + 6 = 11 ones,

11 ones = 1 tens + 1 one put 1 in ones place and carry over 1 to tens place.

Step:2

Add tens

	H	T	O
		1	
	6	7	5
+	1	3	6
		1	1

1 + 7 + 3 = 11 tens ;

11 tens = 1 hundred + 1 tens. put 1 in tens place and carry over 1 to hundreds place.

Step:3

Add hundreds

	H	T	O
	1	1	
	6	7	5
+	1	3	6
	8	1	1

Puzzle

I am a 3 digit number. If you add 5 tens with me, I will become greatest 3 digit number Find me.

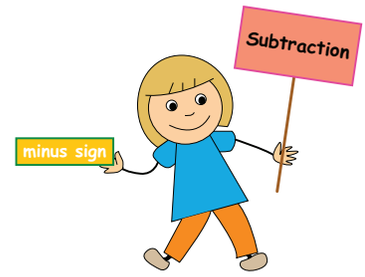
1 + 6 + 1 = 8hundreds

put 8 in hundreds place

Teacher's note: Teacher can help the children to do the Addition problems by using **abacus kit**.

Example:

Subtract 386 from 724



Step:1

Subtract ones

	H	T	O
		1	14
	7	~~2~~	~~4~~
+	3	8	6
			8

Borrow 1 ten from 2 tens then add to 4 ones we get 14 in one's place.

$14 - 6 = 8$

Step:2

Subtract tens

	H	T	O
		11	
	6	1	~~14~~
+	~~7~~	~~2~~	~~4~~
	3	8	6
		3	8

Borrow 1 hundred from 7 hundreds then add to 1 ten we get 11 in ten's place.

$11 - 8 = 3$

Play with numbers

choose any 3 numbers Frame a 3- digit numbers and reverse it. Find their sum and difference.

Step:3

Subtract hundreds

	H	T	O
		11	
	6	1	~~14~~
+	~~7~~	~~2~~	~~4~~
	3	8	6
	3	3	8

$6 - 3 = 3$

Difference = 338

Teacher's note: Teacher can help the children to do the Subtraction problems by using **abacus kit**.

Daily life situation involving addition and subtraction.

Example:

452 Mangoes are grown in farm A and 349 in farm B. Find the total number of mangoes grown in both farms.

Mangoes in farm A = 452

Mangoes in farm B = 349

Total number of Mangoes = 801

Amuthan saved rupees 125 on the first day and rupees 200 in the second day. find the total amount saved by him in two days

The first day saving = ____

The second day saving = ____

Total saving = ____

Kumar earned rupees 800 in a day and spent rupees 450. Find the amount saved by him?

His one day income = ____

Amount spent = ____

Savings amount = ____

Frame questions for addition and subtraction for the picture below. one is done for you.

Rani Chose 2 shirts from the hanger and 3 shirts from the rack Find the total number of shirts chosen by him.

Frame the questions related to the given addition and subtraction facts.

Examples:

281 +240 = ?

A dairy booth sells 281 bottles of milk on first day and 240 bottles of milk on second day. Find the total number of bottles sold on both the days.

352 – 148 = ?

There are 352 oranges on a tree 148 oranges were plucked from the tree. How many oranges are remaining in the tree ?

Try this

There were 10 egg trays each with 10 eggs in Valavan's egg shop. He sold eggs in 3 trays and found that eggs in 2 trays were rotten. find the number of eggs reamining in valavan's shop.

Total number of eggs in valavan's shop= _____.

Number of eggs sold + number of eggs rotten = ____+_____ =_____.

Number of eggs remaining in the shop = _____.

Practice

Frame questions for the given addition and subtraction facts.

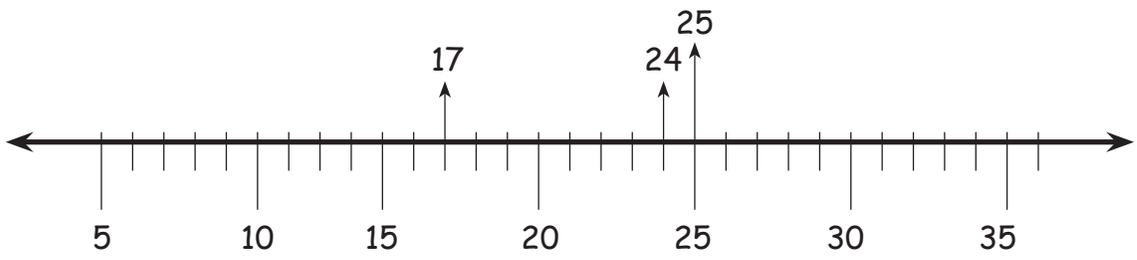
118 + 212 = ?	
717-515= ?	
200 + 300 = ?	
	Savitha has 169 bananas and 243 custard apples. How many fruits does she have in total?

150 – 50 = ?	
500 – 355 = ?	
999 – 199 = ?	

2.6 Estimation

Estimate the sum and difference of the two given numbers by rounding off to nearest 10s and 100s.

Let us round off three numbers 17, 24 and 25 to the nearest 10s.



- We can see that 17 is between 10 and 20 but it is closer to 20 than 10. So, 17 is rounded off to 20.
- 24 is between 20 and 30 but is closer to 20 than 30. So, 24 is rounded off to 20.
- 25 is between 20 and 30. But it is exactly on the middle point. So, 25 is rounded off to 30.

We can easily estimate the sum and difference of any 2 number by rounding off them to nearest values and adding or subtracting them.

Example:

1. Estimate the sum by rounding off to the nearest value and find the actual sum.

Problems	Estimated Answer	Actual Answer
24	20	24
+ 27	+ 30	+ 27
sum	50	51

2. Estimate the difference by rounding off to the nearest value and find the actual difference.

Problems	Estimated Answer	Actual Answer
15	20	15
– 13	– 10	– 13
Difference	10	2

Practice

1. Find the sum and difference of the following.

EAHC6L

a. $\begin{array}{r} 803 \\ +\ 237 \\ \hline \end{array}$ b. $\begin{array}{r} 654 \\ +\ 209 \\ \hline \end{array}$ c. $\begin{array}{r} 493 \\ +\ 135 \\ \hline \end{array}$

d. $\begin{array}{r} 981 \\ -\ 165 \\ \hline \end{array}$ e. $\begin{array}{r} 518 \\ -\ 139 \\ \hline \end{array}$ f. $\begin{array}{r} 782 \\ -\ 375 \\ \hline \end{array}$

2. **Round off the nearest 10.**

a. 19 **b.** 25 **c.** 21 **d.** 47

3. **Estimate the sum to the nearest ten and also find the actual sum.**

Problems	Estimated Answer	Actual Answer
33	30	
+ 35	+ 40	
sum		

Problems	Estimated Answer	Actual Answer
26		
+ 31		
sum		

4. **Estimate the difference to the nearest ten and also find the actual difference.**

Problems	Estimated Answer	Actual Answer
50		
− 41		
Difference		

Problems	Estimated Answer	Actual Answer
28		
− 22		
Difference		

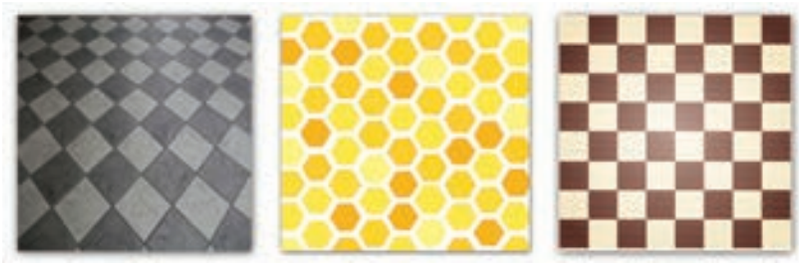
Teacher's note: The teacher should be prepared to give a variety of questions, puzzles, and activities according to the skills of the students.

UNIT-3

PATTERNS

R746VH

Observe the pictures given below.



Patterns

A pattern is formed when objects, events and numbers are repeated uniformly in a specific way.

3.1 Patterns in shapes

Creating patterns of regular and irregular shapes by stamping.

Example: **block patterns created using handprints and foot prints are shown below.**

Activity 1

Create patterns by impressing the following on a paper.

(i) Using dry leaves /fallen leaves.

(ii) Fingers, hands, toes, feet.

(iii) Using bangles.

Activity 20

Create patterns on your own by impressing the following on a chart paper and decorate your class room.

i. seeds

ii. buttons

iii. bottle lids

My own patterns

Pattern in geometrical shapes

There are two types of patterns.

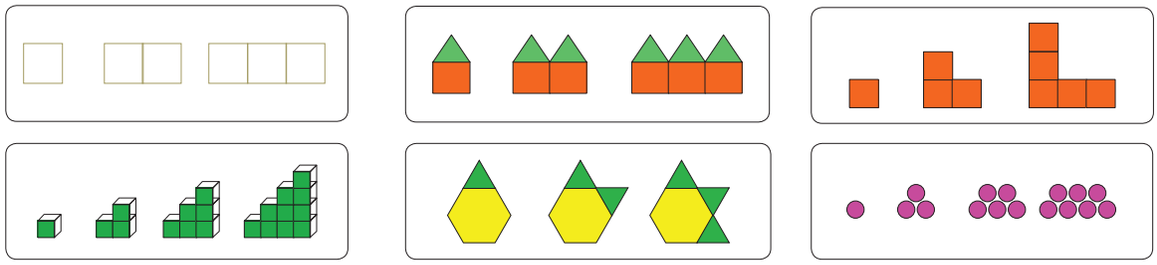
They are

- Growing patterns.
- Repeated patterns.

Growing Patterns

If some patterns and designs increase or grow with straight lines and geometrical forms, they are called growing patterns.

Example:



Try this

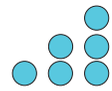
Create some growing patterns using circle and square.

Practice

a. Continue the growing patterns.

1.  _____

2.  _____

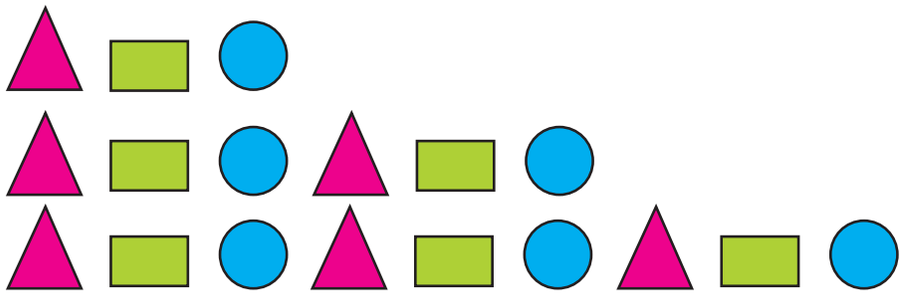
3.  _____

4.  _____

5.  _____

b. Continue the growing pattern.

1.  _____

2. 

_____

3.  _____

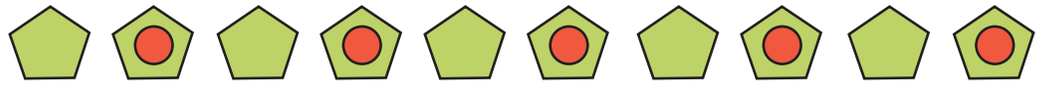
Repeated Patterns

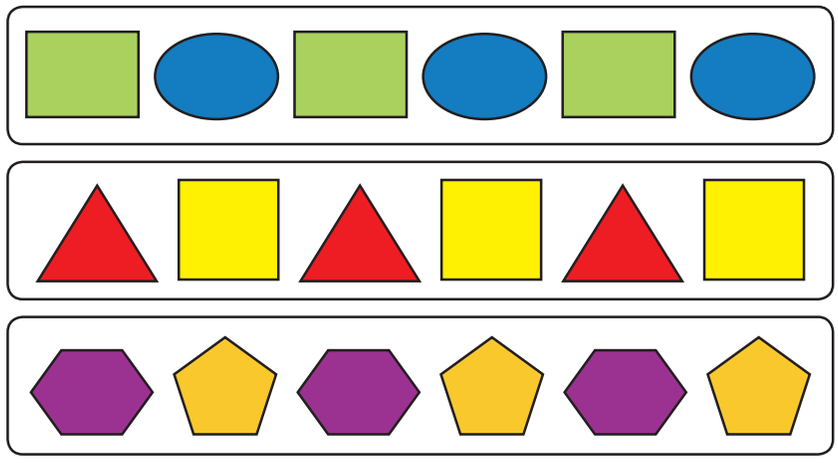
If some patterns and designs repeat with straight lines and geometrical shapes, they are called repeated patterns.

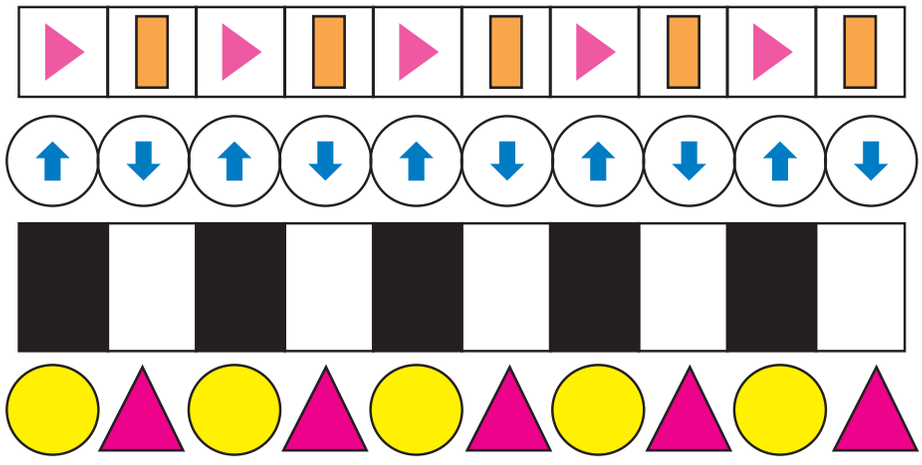
Example:

1. 

2. 

3. 

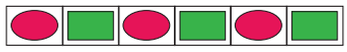




Practice

Continue the repeating patterns upto 3 steps in the space provided.

_____

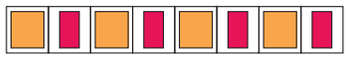


_____

_____

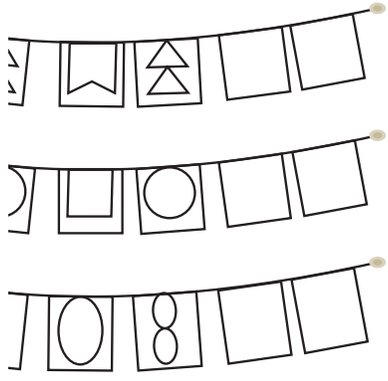
_____

_____



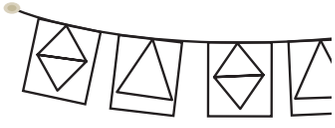
Activity 3

Complete the buntings by following the pattern.



4.

5.



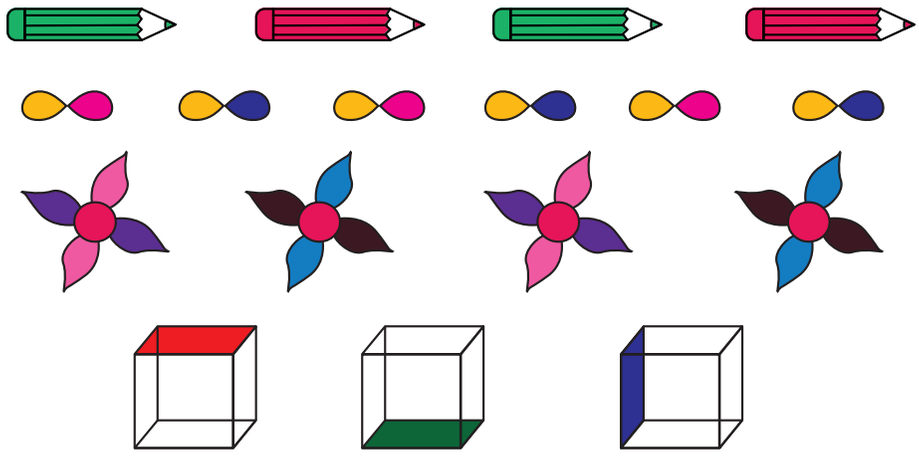
Do yourself

Draw some repeated patterns of your own.

1.

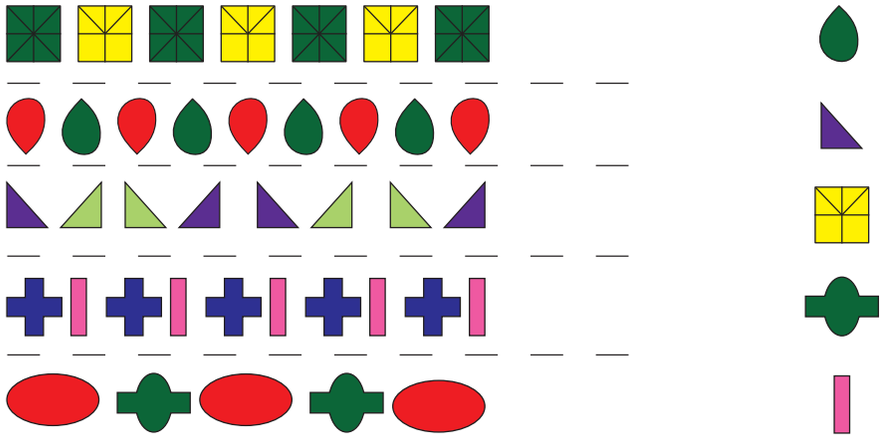
2.

Patterns are created by combining colours and shapes in different ways.

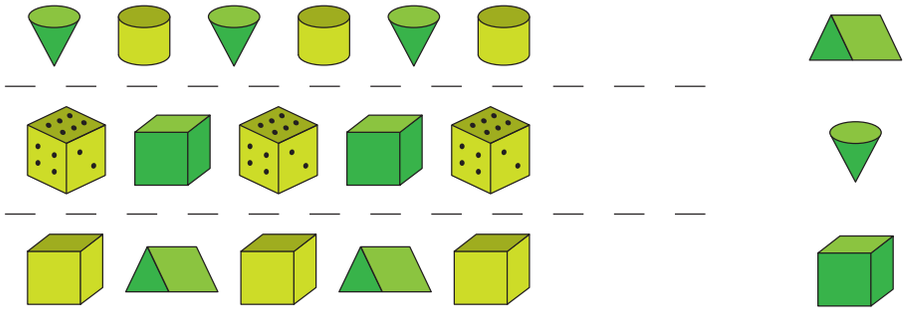


Activity 4

1. Match the following and complete the pattern.



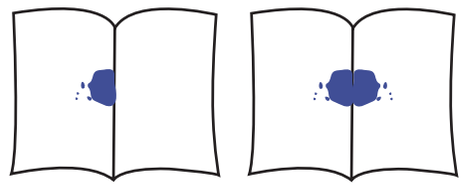
2. Match the following.



Symmetries in shapes and patterns.

Do your self

1. Take a piece of paper.
2. Spill few drops of ink on the paper.
3. Now fold the paper and press it.
4. You will get a symmetric figure.



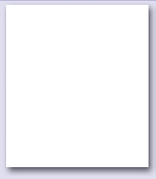
Symmetry

Definition

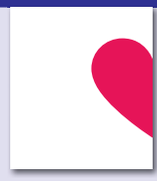
Symmetry means that one shape becomes exactly like another when you move it in the some way: turn, flip or slide.

Let us do

1. Take a sheet of paper and fold it.

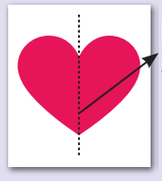


2. Draw any shape at the folded edge of the sheet.

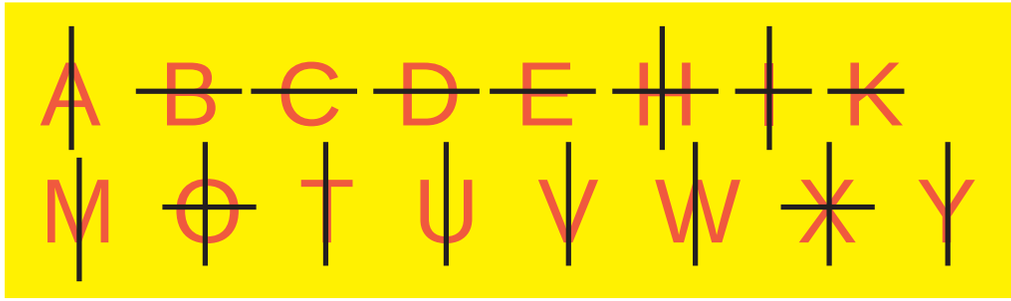


3. Cut the shape

4. Unfold it



Example:



line of symmetry

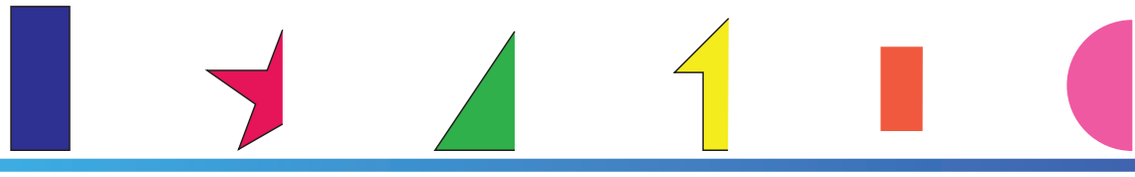
Note that one half of the shape is exactly like the other half. The line which divides the figure into two exact halves is called ***the line of symmetry***.

The following letters are non symmetric and does not have line of symmetry.

F G J L N P Q R S Z

Try this

Make the paper cut outs of the shapes shown below with the help of your elders and keep them in in front of a mirror and observe the image formed in the mirror. You could see the other half of the image.

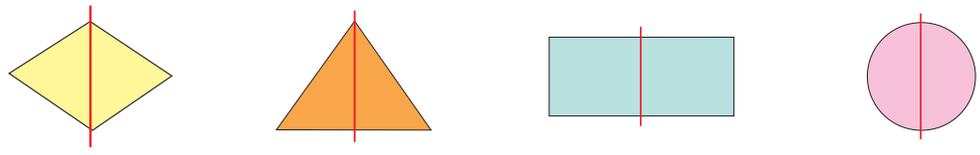


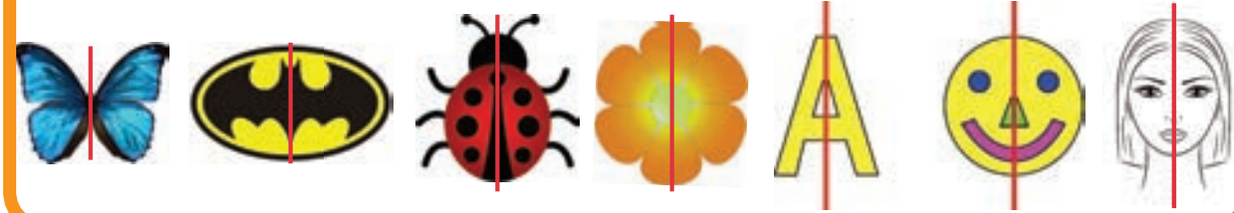
Symmetrical shapes

Definition

If a shape can be folded or divided into half so that the two halves match exactly then such a shape is called a symmetric shapes.

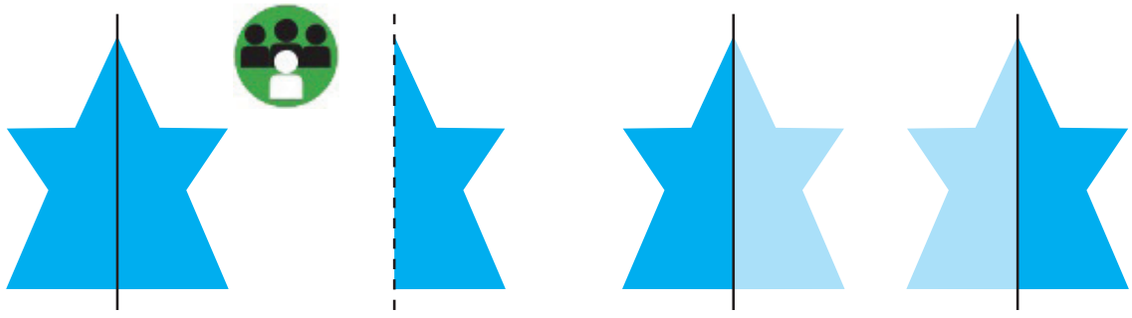
Example: 1





Example: 2

Line of Symmetry | Folding Line | Mirror Line | Mirror Line

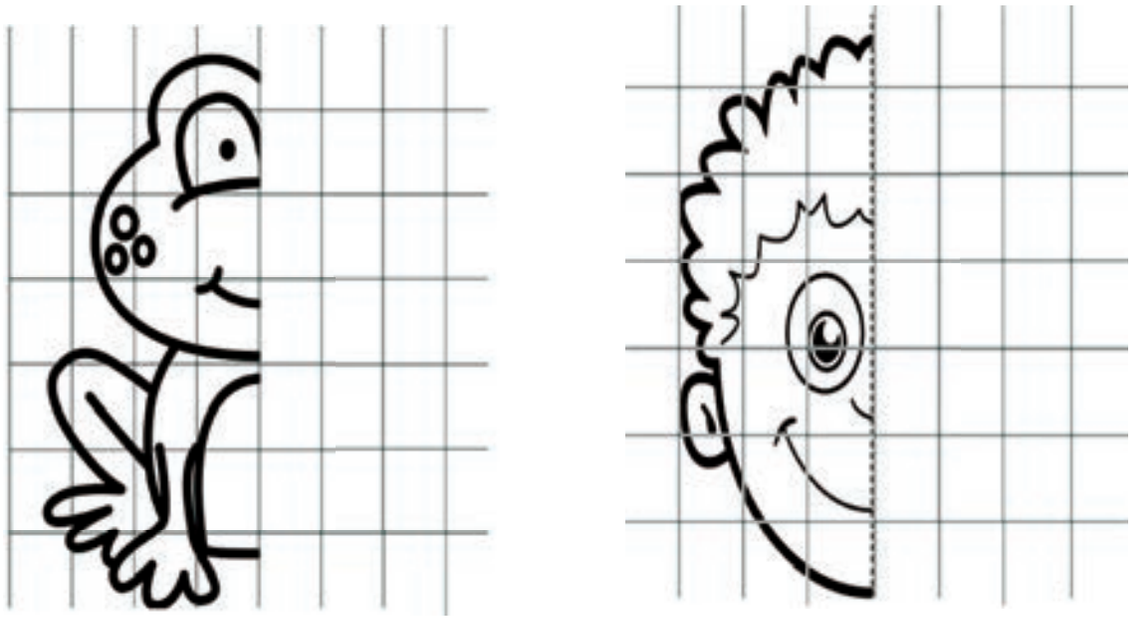


Project:

Collect some symmetrical images from newspapers and magazines and Paste them to make an album.

Activity 5

Complete the symmetrical image



Teacher's note: Teacher can guide the children to collect the symmetrical images in day-today life.

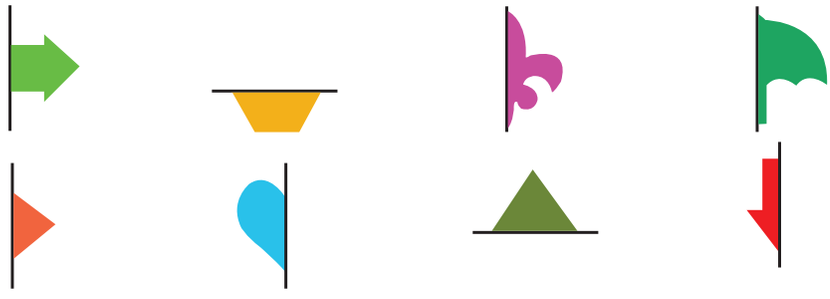
Activity 6

a. Draw the lines of symmetry for the following figures.

b. Circle the non-symmetrical shapes.

Activity 7

Draw the other half from the line of symmetry to make it symmetrical.

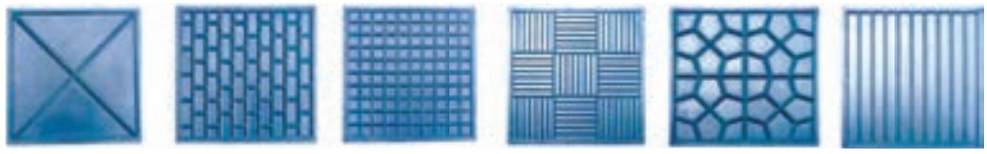


Activity 8

Line symmetry is also found in some letters of the alphabet. Complete Write the letters with line symmetry.

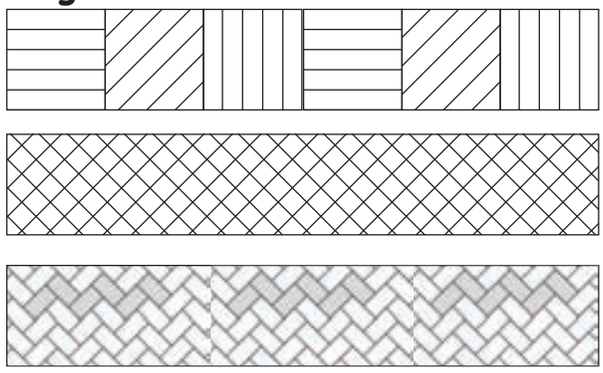
3.2 Creating pattern from straight lines

Example: The following images shows some examples of patterns in straight lines.



Example: Observe and extend the line patterns in the given boxes.

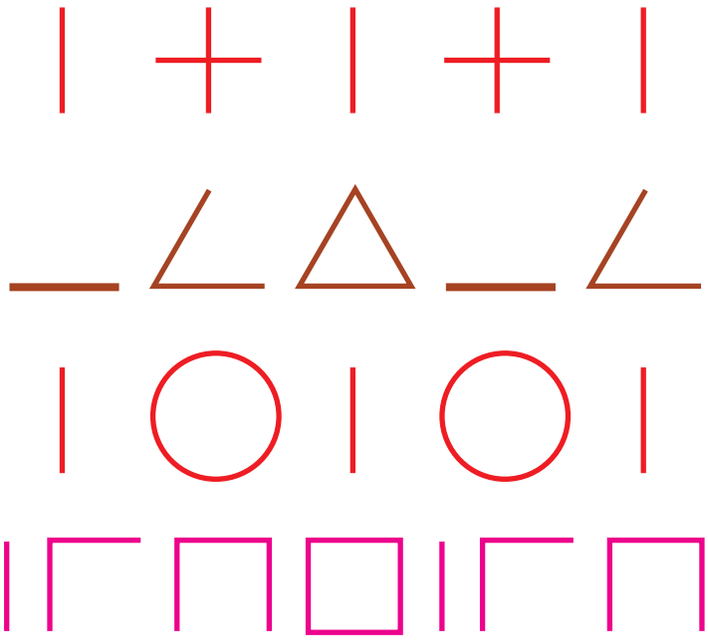
Try this



Practice

Continue the Straight-line patterns.

43Q1KD

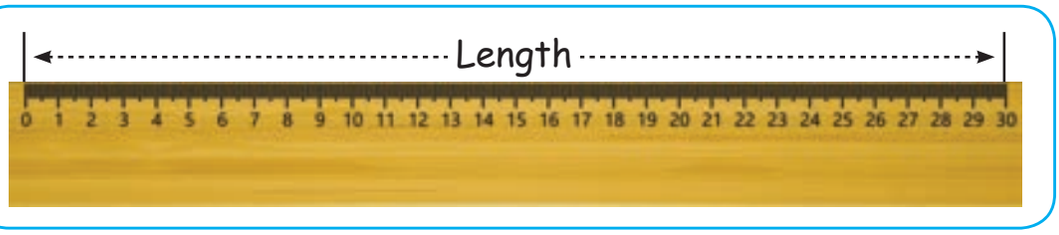


UNIT-4

MEASUREMENTS

FZBVA9

LENGTH



Recall

Observe the non- standard units of measuring length are given below.

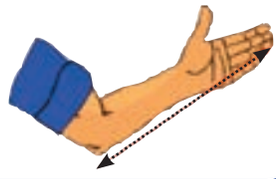
Finger width

A hand span

A pace

A foot span

A cubit



4.1 Need for standard Measurement.

Activity 1

Ragu measured the length of his class table using the non-standard measurements and tabulated them as follows. complete the following table by measuring the length of your class table along with your friends by measuring the length of your class table.

Sl. No	Students name	Finger width	Hand span	Cubit
1	Ragu	6	3	2
2	My measurement			
3	Friend 1			
4	Friend 2			
5	Friend 3			

Activity 2

Measure the length of a ribbon by your hand span.

Friend 1 - _____ hands pan

Friend 2 - _____ hands pan

Friend 3 - _____ hands pan

Friend 4 - _____ hands pan

Measurements made using non standard units differ from person to person.

Can you guess the reason for their different answers?

Measuring the length of objects around us using simple tools.

Activity 3

Form a group of 5 members and measure the length of the blackboard in you classroom using the following tools and tabulate it.

Notebook and a ruler

Sl. No	members of your group	Length of .Pencils	Length of . Erasers	Length of…. Measurement Scales	Length of. Notebook
1	Kala	10	35	7	14
2					
3					
4					
5					

Observe the measurements and discuss

Did you note that all the measurements made by Kala and her friends are same?

MEASUREMENT OF LENGTH

NON - STANDARD UNITS

1. Finger width
2. Hand span
3. Cubit
4. Pace
5. Foot span.

Measurement varies from person to person

STANDARD UNITS

1. Millimeter
2. Centimeter
3. Meter
4. Kilometer

Measurement remains the same.

Teacher's note: Teacher can facilitate the children to understand the need for standard measurements.

4.2 Millimeter and Centimeter.

Introduction

This is a centimeter scale/ruler. 1 denotes 1 centimeter, 2 denotes 2 centimeter and so on. The length between 0 and 1 has 10 parts denoted by small lines. Measurement of each part is millimeter.

Can you tell me how many millimeters are there between 0 and 1?

Now, can you tell me how many millimeters are there between 1 and 2? 1 and 3?

Now, can you tell me how many millimeters are there in 1 centimeter?

From the picture,

1 centimeter equal to 10 parts.

So 10 millimeter = 1 centimeter.

HOW TO WRITE

Millimeter	-	mm
Centimeter	-	cm
Meter	-	m
Kilometer	-	km

Let us know

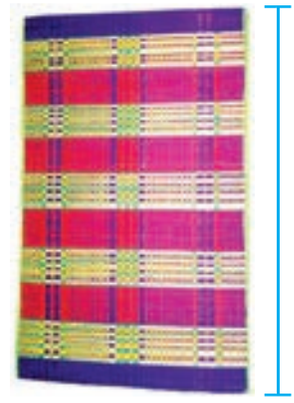
100 centimeter = 1 meter
1000 meter = 1 Kilometer

Millimeter is the smaller unit of length.
Kilometer is the bigger unit of length.

Example:

millimeter (mm)

centimeter (cm)



meter (m)

Activity 4

Measure the length of ribbon by tape roll.

Raj ☐ centimeter Anu ☐ centimeter

Ram ☐ centimeter Kavi ☐ centimeter

The length of the ribbons same when we measure with standard tool using standard unit of measurement.

Practice

Measure the length of following things by centimeter scale and Fill in the given boxes with the measurements.





☐ cm ☐ cm ☐ cm ☐ cm ☐ cm

4.3 Measure length of the things by using ruler.

Activity 5

Measure the length of the following things in your house using a scale.

Objects	Length in centimeter
	30 cm
	☐ cm
	☐ cm
	☐ cm

YEQAAR

Teacher's note: Teacher can guide the children to measure the things properly.

4.4 Centimeter and meter.

Let us know

100 centimeters (cm) = 1 meter (m)

Try this

a. Fill in the blank with appropriate units (meter/centimeter) to ure the following.

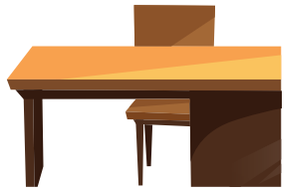
1. My pencil is 6--- long.
2. This tree is 3 --- high.
3. My height is 80----
4. My hairpin is ----long.
5. Height of coconut tree is 15---- .

b. Meena has a ribbon of 50 centimeter and Reena has a ribbon of 110 centimeter.

Whose ribbon is the longer? _____

Activity 6

Measure the length of following things in your class room using a measuring tape and fill in the given boxes.

	_____ meter
	_____ meter

	meter
	meter
	meter

Understand the order of magnitude between centimeter, meter and kilometer as units.

Try This

Put '<' and '>' in the boxes providing.

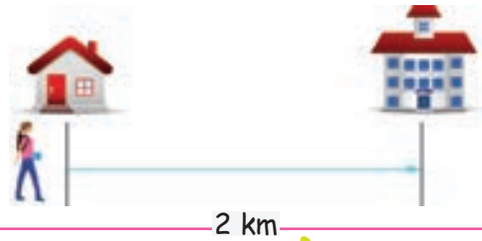
a. Centimeter ☐ Meter

b. Meter ☐ Kilometer

c. Kilometer ☐ Centimeter

Practice

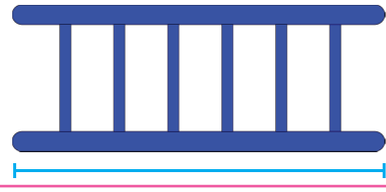
match the objects with the appropriate units of measuring their length..

	Kilometer
	Centimeter
 2 km	Meter

4.5 Comparing estimation with actuals using standard tools.

Activity 7

Estimate the length of the following objects and verify by measuring it actually.

Sl. No	Name of the object	Estimated length	Actual length
1			
2			
3			
4			
5			
6			
7.			
8.			

Practice

1. Circle the odd one.

1. mm 2. cm 3. m 4. Cubit

2. Fill the blanks.

1 meter = 100 cms

2 meter = _____ cms

3 meter = _____ cms

4 meter = _____ cms

3. Match the following.

10 milimeters	1 kilometer
100 centimeters	1 centimeter
1000 meters	1 meter

4. Write all the non-standard units.

1. Finger span
2. _____
3. _____
4. _____
5. _____

5. Write all the standard units you know.

1. millimeter
2. _____

3. _____

4. _____

5. _____

BBC4ZM

6. Complete the table.

Your height	Height of your friends			Who is taller?	Which of your friends is the shortest one?
	Friend 1	Friend 2	Friend 3		

7. Write in short form.

millimeter : _____

centimeter : _____

meter : _____

Kilometer : _____

8. Write the given units in order.

mm meter cm km

Ascending order _____, _____, _____, _____

Descending order _____, _____, _____, _____

Activity 8

Students are divided into two groups. one group should measure the length of the classroom is non standard units and the other group in standard units Discuss your inference in measurements.

UNIT-5

Travel through

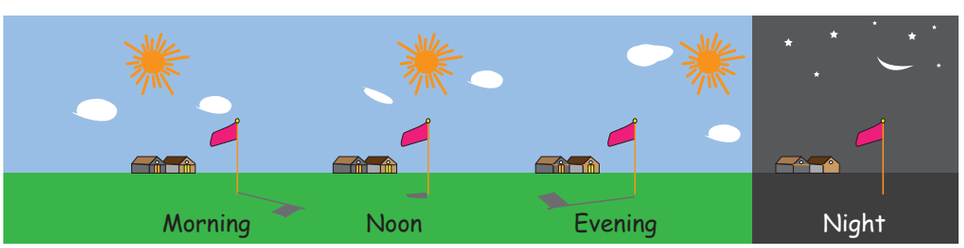
Have you ever observed the shadow formation and how it behaves? children.

What do you notice in the image given below?

D16N4A

Are two people walking ?. And their "shadows".? There aren't many people who have not heard of the term shadows. But why and how are shadows formed.

To understand shadows, you will first need to understand the sun light makes shadows.



Children, observe the images and discuss how the position of sun and shadow varies from time to time in a day.

In last image, the sun is not there. There are stars, the moon and dark sky in the night. Where was the sun?. Behind the earth. Next day we begin with "Good Morning" and it goes on. This cycle is called Day-Night cycle. It takes one day to make one revolution. It revolves 365 times to go one round around the sun. Which means 365 days. This we call it as one **year**. We celebrate "Happy New Year".

In the above picture which will be the fastest transport.? Which will be the slowest? Think,

How do you measure the difference in time?. We would use clock for measuring time.

5.1 Reading Time

I am a clock. I have numbers from 1 to 12 marked on me. I have two hands, a short hand called the **hour hand** and a long hand called the **minute hand**. Some clocks have another hand called the **seconds hand**.

The **hour hand** takes one hour to move from one number to the next number. The **minute hand** moves faster than the hour hand and takes five minutes to move from one number to the next number.The **seconds hand** moves very faster and it takes five seconds to move from one to the next number.

Let us draw the clock in 3 steps.

Step:1 1,2,3,.....59,60.

Step:2 skip count in 5's as 5,10,15,20,.....55,60.

Step :3 Write 1,2,3,.....12 directlty below 5,10,15,....

12 hours + 12 hours = 24 hours = 1 day

Teacher's note: Teacher can explain the hour hand, minute hand, and second hand by using clocks.

Practice

1. **Read the Time and write in two ways. One is done for you.**

4 o'clock	_____	_____	_____	_____
4:00	_____	_____	_____	_____

2. **Draw hands on the clock's face to show the time given below.**

5:30 | 9 o'clock | 7: 00 | 10 o'clock | half past 5

3. **Write the time taken to do the following activities (hours,minutes, seconds or days).**

Activity	seconds/minutes/hours/days
To draw a circleo using a bangle	
Packing school bag	
watching a movie in a theatre	
a seed to grow and become a plant	
To travel from delhi to mumbai by train	
To prepare tea	

Try this

In one minute how many times can you.

1. Snap your finger _____
2. Skip a rope _____
3. Jump up and down _____
4. To blink your eyes _____

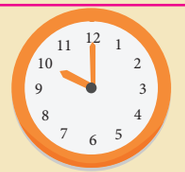
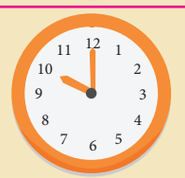
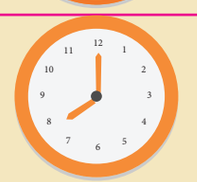
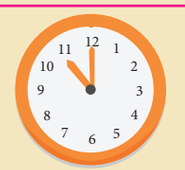
Let us know

60 seconds = 1 minutes

60 minutes = 1 hour

Activity 1

Tick the clock which shows the correct time as per the instruction.

Time now	Instruction	Time as per instruction		
	After 1 Hour			
	After 2 Hour			
	Before 1 Hour			
	Before 2 Hour			
	After 3 Hour			

5.2 Analogue and digital clocks

Observe the following clocks.

Analogue clock

Digital clock

Analog clock has hour hand and minute hand. It shows time by the position of the hands.

Digital clock shows the time numerically.

Express time in two ways

4:10
10 minutes past 4

6:50
10 minutes to 7

9:45
15 minutes to 10

1:15
Quarter past 1

4:30
Half past 4

Activity 2

1. Write the time shown in analog clock by digital representation.

2. Draw the hands of these clocks to show time given in the digital clocks.

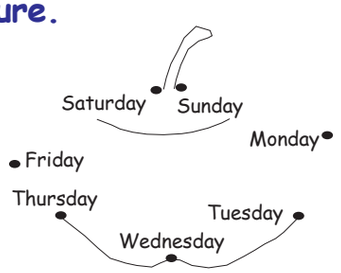
3. Match kavya's schedule with the correct time.

a. It is 15 minutes past 8, when kavya starts for her school.	7:45
b. It is half past 2, when kavya comes out of her school.	9:30
c. It is 15 minutes to 5, when kavya goes out to play.	2:30
d. It is 15 minutes to 8, when kavya eats her dinner.	4:45
e. It is half past 9, when kavya goes to bed.	8:15

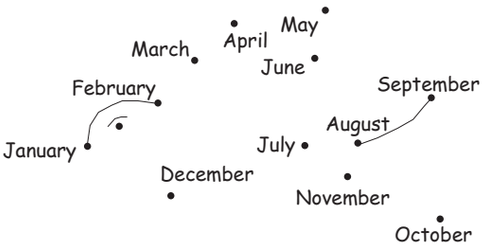
5.3 Calender

Let us recall the months of the year.

a. Join the dots in the order of the days and colour the picture.



b. Join the dots in the order of the months and colour the picture.



c. Fill in the blanks.

1. A year has _____ days.
2. There are _____ days in a week.
3. Twelve months are _____ a year.
4. A month has_____ days.
5. The first month of a year is _____.
6. The first day of a week is_____.

Let us know

1 Week = 7 Days
1 Month = 30 Days
1 Year = 12 Months
1 Year = 365 Days
1 Leap year = 366 Days

Leap year

A leap year has 366 days. There are 29 days in February in a leap year. It occurs once in every 4 years. The year 2016 was a leap year. 2020 will be the next leap year.

5.4 Read a particular day and date

Mahatma Gandhi's birthday was on the second of October 1869.
In our country,The date is usually represented as follows 02.10.1869 first 2digits represents day, second 2digits represents month and third 4 digits represent the year. we generally denotel it as dd/mm/yyyy format.

Date	Month	Year
2	10	1869

1. Write today's date in dd.mm.yy format.
2. Write your birthday in dd/mm/yyyy format.

Try this

Circle the date given below in the following calendar.

JANUARY 2018						
SUN	MON	TUE	WED	THU	FRI	SAT
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

FEBRUARY 2018						
SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

1. The date 4 january 2018?
2. The date 15 januray 2018?
3. The date 22 february 2018?
4. The date 31 january 2018?
5. The date 28 february 2018?
6. The date 5/02/2018?
7. The date 26/01/2018?
8. The sunday date in january 2018?

Activity 3

Find the age of your friends by subtracting their birthday from the present date.

Name of the your friend					
Date of Birth					
Age					

Do yourself

Fill the table with the date of birth of your family members.

Members	Date of birth	25th Date of birth	AGE (today) (In the whole year)	40th date of birth
Father				
Mother				
Brother				
Sister				

Practice

1. Look at the calendar of 2018 and fill in the boxes.

1. Teachers Day is on _____

2. Independence Day is on _____

3. Republic Day is on _____

4. Children's Day is on _____

2. Match the following.

November 15, 2018	26.04.2018
June16, 2018	10.12.2017
April26, 2018	15.11.2018
December10, 2017	26.05.2017
May26, 2017	16.06.2018

3. Look at the above calendar and fill in the blanks.

1. Number of days in October 2018 is ____

2. The number of Sundays ____

3. The first Saturday is on ____

4. Last day of the month is ____

5. The tenth day of this month is ____

6. The third Wednesday comes on ____

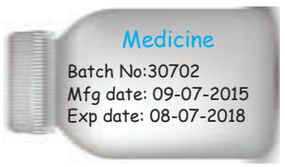
October 2018

SUN	MON	TUE	WED	THU	FRI	SAT
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

5.5 Manufacture and expiry date

Manufacturing date or the date of manufacture refers to the date in which the product is produced.

Expiry date or the date of expiry refers to the date upto which the product can be used.We should not use a product beyond its expiry date.



Manufacture date: 09-07-2015
Expiry date: 08-07-2018

Manufacture date: 10-12-2017
Expiry date: 09-03-2019

Manufacture date: 13-11-2017
Expiry date: 06-04-2019

Practice

1. Write the manufacture date and expiry date of the following items.

S.No	Items	Manufacture month or date	Expiry month or date
1			
3			
4			

2. **Calculate duration between manufacture and expiry date of the products tabulated below.**

S.No	Name of Food products	Manufacture date	Expiry date	Difference
1	Honey	15-07-2017	18-09-2019	
2	Cashew nut	29-12-2005	30-02-2008	
3	Pickle	Feb 2018	Apirl 2018	
4	Coffee powder	Aug 2008	Nov 2008	
5	Badam milk	Feb 2019	March 2019	

Activity 4

Fill up the date of manufacture and date of expiry of food products you use in daily life.

S.No	Name of Food products	Manufacture date	Expiry date
1			
2			
3			
4			
5			

Practice

1. Calculate the number of days in the first 5 months of a leap years 2016,2020 and the ordinary years 2018 and 2023. What do you infer.
2. Draw the clocks for the times given below.
   a. Quarter past 9
   b. Quarter to 9
   c. 10 minutes to 10
   d. 10minutes past 10
   e. half past 8

VFK34S

UNIT-6

2 Information Processing

6.1 Listing down all possible ways

Kavin has taken 2 trousers and 3 shirts with him to wear in a picnic. list down all the possible choices that he can wear them.

8C6WTN

take this heading above the text

Example:

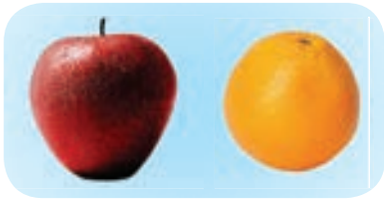
Here are the choices.

picture 1 picture 2 picture 3

There are two possible ways of dressing using one shirt and two trousers as shown in picture 1. Similarly we shall pair remaining two shirts with the trouser in four ways as shown in picture 2 and picture 3.

Hence there are six possible ways of pairing two trouser with three shirts.

Kaviya likes to eat one vegetable and one fruit in a day. Apples and oranges are her choices among fruits and carrots and cucumbers are her choices among vegetables. Complete the given table by filling the ways she combine one fruit with one vegetable.



Fruit				
Vegetable				

Example:

List down all possible ways of forming three digit numbers by using the digits 4,5 and 7 once.

Possible ways

457 475 574 547 754 745

Practice

1. List down all possible ways of forming three digit numbers by using the given digits only once.

a. 9,6,8 b. 3,2,0 c. 1, 5, 4

Possible ways

a. 986 968 698 689 896 869

b.

c.

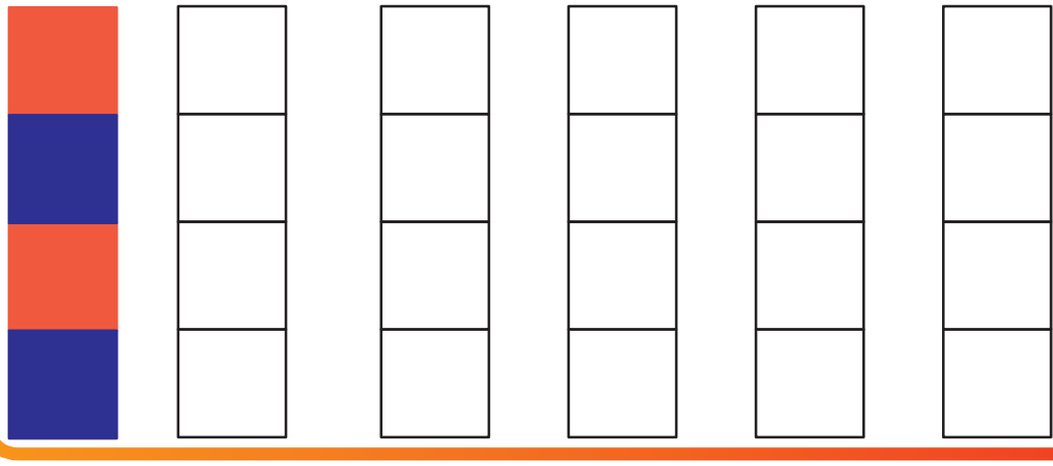
2. Find all possible ways of combining the three letters a,e,t using each of them once.

Possible ways

Activity 1

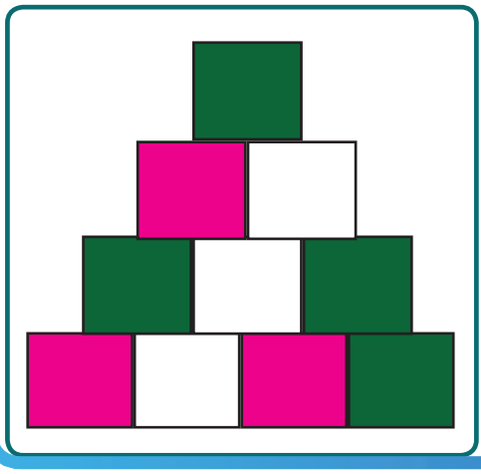
Let us colour the blocks.

Find all possible ways of colouring the given blocks with blue and red. One is done for you.



Activity 2

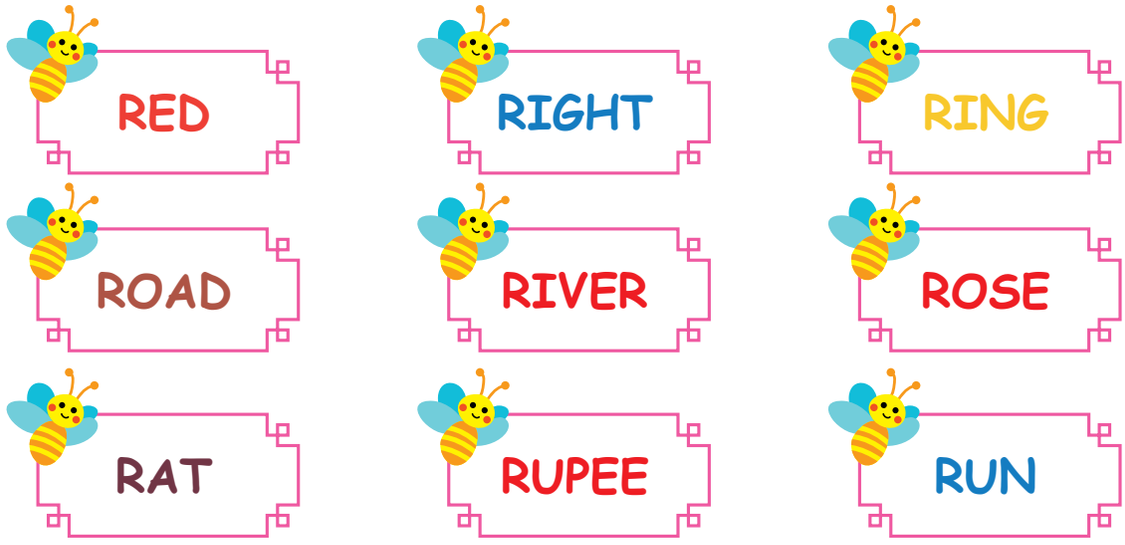
fill the white space in the given blocks with alternate colours and answer the following questions based on it..



1. Total number of blocks
2. Number of rose block
3. Number of blocks
4. Number of blocks in 2 and 4 row
5. How many more than

Example:

List all possible 3 lettered words 4 lettered words and 5 lettered words that start with alphabet 'R'.



Look at the above words and answer the questions.

1. Number of 4 lettered words are _____.
2. Number of words with 5 letters are _____.
3. There are _____ 3 lettered words.
4. There are _____ 5 lettered words.

List Down All Possible Word

List down all possible meaningful 3 lettered and 4 lettered words starting with the alphabet 'A'.

Activity 3

List the names of the animals with 4 letters.

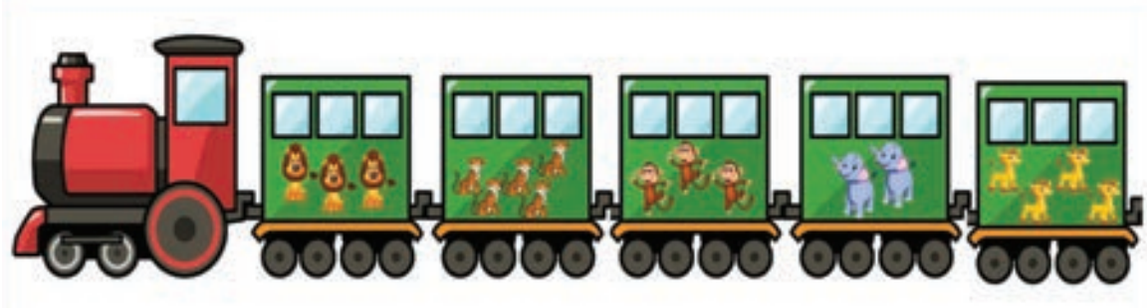
6.2 Collecting and Representing data

Pictorial Representation

Symbols and pictures can be used to represent data.This is known as **Pictorial Representation.** This helps us to study and understand data easily.

Example:

Look at the below picture and fill the required data.



1. How many  are there? **3**

2. How many  are there? **3**

3. Circle the animal which is more in count.?

4. Circle the animal which is less in count?

5. What is the difference between highest and lowest count? **3**

6. Total number of animals in the zoo train is **17**.

Example:

The following picture represents the data on fruits sold in a shop.

Apple	
Orange	
Banana	
Pineapple	

Look at the above picture and fill the required data.

1. Name the fruit which was sold more?
2. Name the fruit which is sold less. Orange
3. Find the number of apples sold.
4. Write the number of bananas sold?
5. what is the difference in the number of pineapples sold and oranges sold ?

Practice

1. Collect the data from 40 of your friends about their favourite food and represent it in Picture.

	Picture	Total
Idly		
Dosa		
Poori		
Chappathi		

2. The following picture represents the number of chocolates sold at a shop in a week.

 = 10 Chocolates

Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	

Answer the following questions from the data given in the above table.

1. The total number of chocolates sold on Thursday is ( )
2. The sale was maximum on [ ]
3. The sale was minimum on [ ]
4. Sales were equal on [ ] and [ ]
5. The total number of chocolates sold in six days are ( )

6.3 Drawing Conclusion from the Represented Data

Activity 4

Draw a conclusion from the representation by discussing with your teacher.

The graph below shows the number of children in a school studying in classes 1-4 of a school. The number of girls studying in classes 1-4 of a school are 14, 10, 16 and 13 respectively. Draw the graph discussing with your teacher for number of boys studying in classes 1-4.

Class	Number of students	Total
Girl I standard Boy		14
Girl II standard Boy		10
Girl III standard Boy		16
Girl IV standard Boy		13

After completing the pictorial representation answer the following questions.

1. The number of girls in class 2 is _____.
2. The number of boys in class 3 is _____.
3. The total number of students in class 4 is _____.
4. The total number of girls from class 1to 4 is _____.
5. The total number of boys from class 1 to 4 is _____.
6. The class which has more strength is _____.

K8SRIJ

Teacher's note: Teacher can help the children to collect the number of boys in each class and complete the pictorial representation.