



**MAGNOLIA
LESSON PLAN
MATHS**

A – Curriculum to Learning Objectives: Geometry

Prior Knowledge		• <i>Names of flat shapes</i>				
Class	Ch. No.	Chapter Name	C. No.	Concept Name	L. Obj. No.	Learning Objectives
1	1	Shapes	1.1	Understand Spatial Words	1.1.a	• basic flat and solid figures
					1.1.b	• corners and sides of objects/figures
					1.1.c	• outlines of the bases of the objects
2	1	Shapes	1.1	Identify the Geometrical Features of Objects	1.1.a	• lines, open figures and closed figures
					1.1.b	• drawing figures using lines
					1.1.c	• basic flat and solid figures
					1.1.d	• flat figures as outlines of the surfaces of solid figures
3	1	Shapes	1.1	Vertices and Diagonals of Two-dimensional Shapes	1.1.a	• identifying 2D shapes with straight and curved lines
					1.1.b	• identifying sides, corners and diagonals
					1.1.c	• making a tangram
					1.1.d	• recognising 3D shapes and their faces and edges
4	1	Shapes	1.1	Circle and its Parts	1.1.a	• circle and its parts
			1.2	Reflection and Symmetry	1.1.b	• drawing a circle
					1.2.a	• reflection and symmetry in figures
			1.2.b	• tessellation and tiling		
5	1	Shapes	1.1	Identify and Classify Angles	1.1.a	• angles and naming the angles
					1.1.b	• using a protractor
					1.1.c	• properties of a protractor
					1.1.d	• types of angles
			1.2	Nets and Views of Solids	1.2.a	• nets of cubes, cuboids, cylinders and cones
					1.2.b	• top, front and side views of objects

B – Vision-to-Action Plan: 1.1 Understand Spatial Words

Period and Planned Date	TB Page No. and Key Competency	L. Obj. No.	Learning Outcome(s)	Teaching Strategies	Resources	Practice	Areas to Focus
1 DD/MM/YYYY	1 – THK	1.1.a	<ul style="list-style-type: none"> Recall the basic shapes of objects. 	<ul style="list-style-type: none"> Guided Learning 	<ul style="list-style-type: none"> bangles 	–	
2 DD/MM/YYYY	2 – RCL	1.1.a	<ul style="list-style-type: none"> Describe various positions with respect to an object: on, under, above, below, near, far. 	<ul style="list-style-type: none"> Guided Learning 	–	WB: Pg. 1 (Q. 1, 2)	
3 DD/MM/YYYY	3 – RCL	1.1.a	<ul style="list-style-type: none"> Describe various positions with respect to an object: in front of, behind, inside, outside, before, between, after. 	<ul style="list-style-type: none"> Guided Learning Questioning 	–	–	
4 DD/MM/YYYY	3, 4 – RCL	1.1.a	<ul style="list-style-type: none"> Use correct words to describe positions of objects. 	<ul style="list-style-type: none"> Direct Instruction 	–	TB: Pg. 4 (Fill in the blanks) WB: Pg. 1 (Q. 3)	
5 DD/MM/YYYY	4-6 – REM/UND	1.1.a	<ul style="list-style-type: none"> Identify flat figures and their properties. Identify objects in the surroundings having different flat figures. 	<ul style="list-style-type: none"> Direct Instruction 	<ul style="list-style-type: none"> Chart of Flat Figures 	WB: Pg. 2 (Q. 4, 5, 12)	
6 DD/MM/YYYY	5, 6 – REM/UND	1.1.b	<ul style="list-style-type: none"> Count the sides and corners of a flat figure. 	<ul style="list-style-type: none"> Practising 	<ul style="list-style-type: none"> Geoboard 	WB: Pg. 2 (Q. 6-11, 13, 14)	

Period and Planned Date	TB Page No. and Key Competency	L. Obj. No.	Learning Outcome(s)	Teaching Strategies	Resources	Practice	Areas to Focus
7 DD/MM/YYYY	6, 7 – APP	1.1.b	<ul style="list-style-type: none"> Understand solid figures and relate the solid figures with the objects in our surroundings. 	<ul style="list-style-type: none"> Interactive Discussion 	–	WB: Pgs. 3, 4 (Q. 15, 17)	
8 DD/MM/YYYY	7, 8 – HOTS	1.1.c	<ul style="list-style-type: none"> Identify the solid figures (3D shapes) using examples. 	<ul style="list-style-type: none"> Questioning 	–	WB: Pgs. 3, 4 (Q. 16, 18)	
9 DD/MM/YYYY	7, 8 – HOTS	1.1.c	<ul style="list-style-type: none"> Revise spatial words, 2D shapes, solid figures. 	<ul style="list-style-type: none"> Peer Learning 	–	TB: Pg. 8	
10 DD/MM/YYYY	8-11 – Drill Time	1.1.c	<ul style="list-style-type: none"> Revise spatial words, 2D shapes, solid figures. 	<ul style="list-style-type: none"> Peer Learning 	–	TB: Pgs. 8-11 (Drill Time)	

Annual Day:
1/59

Day:
1/10

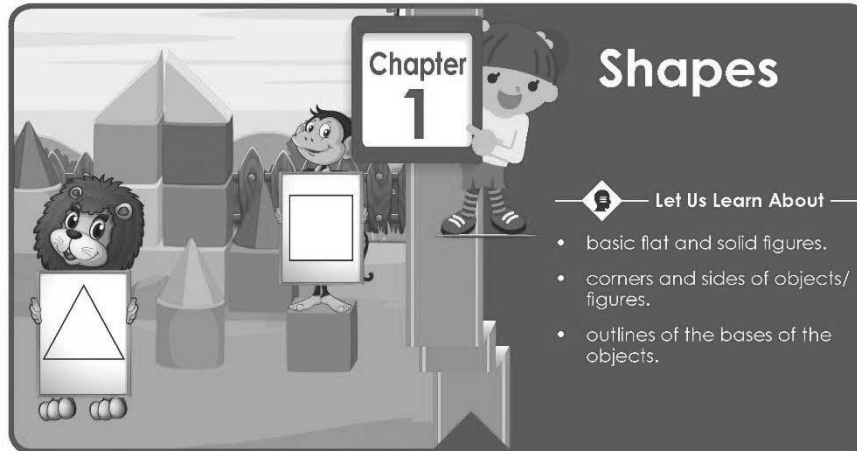
Actual Date:

Page(s):
1

Important Words

Duration: 1 min

- Today: die, outline, bases, shape



Chapter 1 Shapes

Let Us Learn About

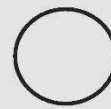
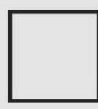
- basic flat and solid figures.
- corners and sides of objects/figures.
- outlines of the bases of the objects.

Concept 1.1: Understand Spatial Words



Think

Bantei has a glass, a book, a die and a birthday hat.
He drew the outlines of their bases. He has three shapes as shown.
Do you know what these shapes are called?



Transactional Tip(s)

Duration: 27 min



Guided Learning:

- Read TB: Pg. 1, 'Think'.
- Show and identify various objects given in the 'Think' section. Draw their basic shapes.
- Ask learners to share various examples of shapes which they know.
- Show a bangle to draw its basic shape.
- Name the shape. Guide learners to draw its shape.

Class Pulse Check

Duration: 2 min



- 1) What are the shapes of the biscuits we eat?
- 2) What is the shape of a duster?



- Last class: die, outline, bases, shape
- Today: on, under, above, below, near, far



Recall

Look at the positions of the cat with respect to the ball in these pictures.



on



under



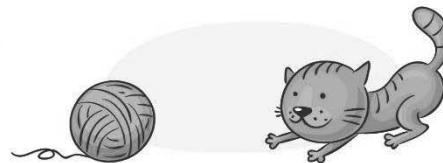
above



below



near



far

Transactional Tip(s)

Duration: 27 min



Guided Learning:

- Show the pictures on of the cat and the ball on TB: Pg. 2 .
- Explain the position of the cat with respect to the ball.
- Read the words aloud.
- Solve WB: Pg. 1, Q. 1.
- Relate and show different positions with different objects.
- Challenge learners to do the same.

Class Pulse Check

Duration: 2 min



- 1) The door is _____ me. (near/far from)
- 2) Your friend's bag is _____ the floor. (on/below)



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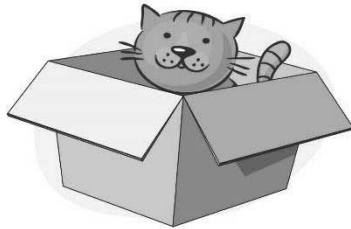
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3



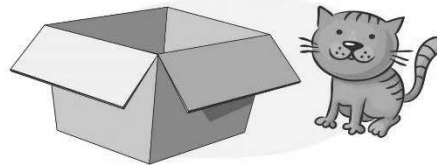
in front of



behind



inside



outside

Look at the picture given below. The mouse, the cat and the woollen ball are in a line.

The mouse is **before** the cat.

The cat is **between** the mouse and the woollen ball.

The woollen ball is **after** the cat.



Important Words

Duration: 1 min

- Last class: on, under, above, below, near, far
- Today: in front of, behind, inside, outside, before, between, after

Transactional Tip(s)

Duration: 27 min



Guided Learning (17 min):

- Show pictures of the cat given in the TB: Pg. 3, 'Recall'.
- Use letters of the English alphabet to explain meanings of 'before', 'between' and 'after'.
- Ask learners to solve WB: Pg. 1, Q. 2.

Questioning (10 min):

- Take a quiz using different objects. You may ask very short answer questions as well.
 - The food is _____ the tiffin box. (inside/outside)

Class Pulse Check

Duration: 2 min



- 1) Raj sat _____ a banyan tree. (under/in)
- 2) We park the car _____ (inside/outside) the house.

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Page(s):
3, 4

Important Words

Duration: 1 min

- Last class: in front of, behind, inside, outside, before, between, after
- Today: before, between, far away

Transactional Tip(s)

Duration: 27 min



Direct Instruction:

- Revise the special words from 'Recall'.
- Draw a star above a line on the blackboard. Frame questions based on the position of the star and the line.
- Solve:
 - TB: Pg. 4, 'Fill in the Blanks';
 - WB: Pg. 1, Q. 3.

Let us recall the concept of position. Choose the correct word to fill the blanks. One is done for you.



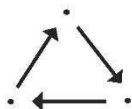
- The jug is on the table. (on/in)
- The ball is _____ the box. (outside/inside)
- The butterfly is _____ the dog. (above/under)
- The cat is _____ the table. (above/under)
- The dog is _____ the table. (far away from/near)
- The teddy bear is _____ the jug. (behind/in front of)



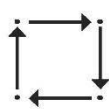
Remembering and Understanding

Let us learn about shapes through an example.

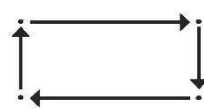
Example 1: Join the dots in order and name the shapes formed.



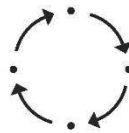
a)



b)



c)



d)



Class Pulse Check

Duration: 2 min



- 1) The dog is _____ (above/under) the butterfly.
- 2) The ball is _____ (far away from/ near) the cat.

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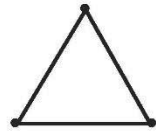
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Important Words

Duration: 1 min

- Last class: before, between, far away
- Today: square, triangle, corners, side

Solution:



a) Triangle



b) Square

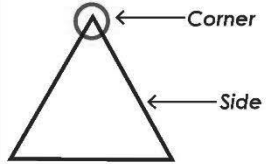

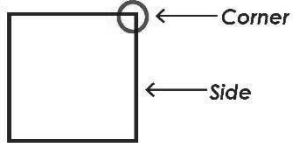

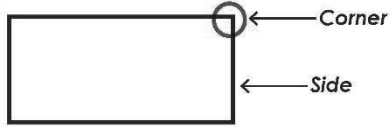

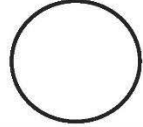



c) Rectangle



d) Circle

Figures such as triangle, square, rectangle and circle are called **flat figures**.
Let us learn more about flat figures. Study the following table.

Flat figure	Features	Object
	<ul style="list-style-type: none">• 3 sides• 3 corners	
	<ul style="list-style-type: none">• 4 equal sides• 4 corners	
	<ul style="list-style-type: none">• 4 sides• 4 corners• Opposite sides are equal	
	<ul style="list-style-type: none">• No sides• No corners	

Transactional Tip(s)

Duration: 27 min



Direct Instruction:

- Use Chart of Flat Figures to explain figures and its features. Also share examples of objects with those shapes.
- Solve and explain TB: Pg. 4, 5, Example 1.
- Ask learners to solve WB: Pg. 1, 2, Q. 4, 5, 12.
- Have a practice session for identifying flat figures and their features.
- Ask learners to solve TB: Pg. 6, Example 2.

Class Pulse Check

Duration: 2 min



- 1) How many sides does a triangle have?
- 2) Is square a flat figure?

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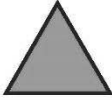
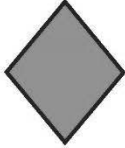
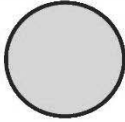
Page(s):
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Important Words

Duration: 1 min





- Last class: square, triangle, corners, side
- Today: rectangle, circle

Example 2: Write the number of corners of the given figures. One is done for you.

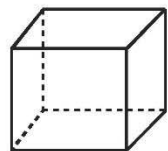
Figure	Number of corners
	3
	
	



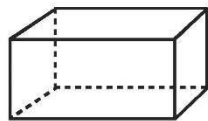
Application

Objects such as  (cube),  (cuboid),  (cone) and  (sphere) are called **solid objects**. Their figures drawn using straight or curved lines are called **solid figures**.

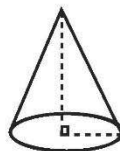
Observe the solid figure shown here.



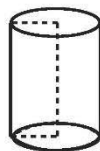
Cube



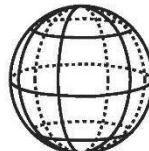
Cuboid



Cone



Cylinder



Sphere



Transactional Tip(s)

Duration: 27 min



Practising:

- Revise all flat figures and their features.
- Ask learners to use the Geoboard to find the correct number of corners in square, rectangle and triangle.
- Ask learners to find two objects that resemble a circle and a rectangle.
- Solve WB: Pg. 2, Q. 6-11, 13, 14.

Class Pulse Check

Duration: 2 min



- 1) What is the shape of a bangle?
- 2) What is the shape of a kite?

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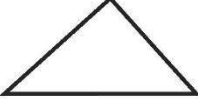



Page(s):
6, 7

Important Words

Duration: 1 min

- Last class: rectangle, circle
- Today: cube, cuboid, cone, cylinder, sphere

Example 3: Some objects are given here. Draw and name the outlines of their bases.

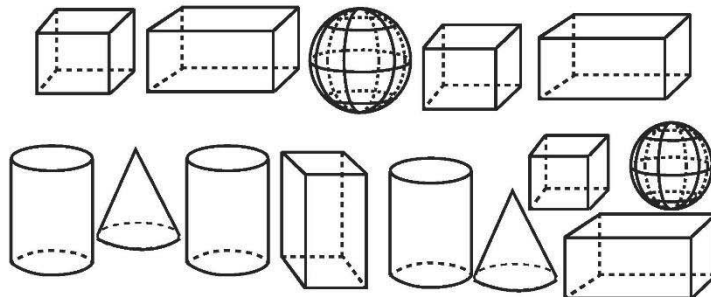
Object					
Outline of the base					
	Circle	Triangle	Rectangle	Circle	Square



Higher Order Thinking Skills (H.O.T.S.)

Let us try to identify the different solids through an example.

Example 4: Observe the given picture and answer the questions that follow.



- a) How many cubes are there? Colour them blue.
- b) How many cuboids are there? Colour them red.



Transactional Tip(s)

Duration: 27 min



Interactive Discussion:

- Ask learners to identify objects and their basic shapes given in TB: Pg. 6, 'Application'.
- Have a discussion around how these figures are different from the flat shapes learnt earlier.
- Explain solid figures with examples.
- Read through TB: Pg. 7, Example 3.
- Have a discussion around the similarity and difference between a cube and a square.
- Ask learners to solve WB: Pgs. 3, 4, Q. 15, 17.


Class Pulse Check

Duration: 2 min



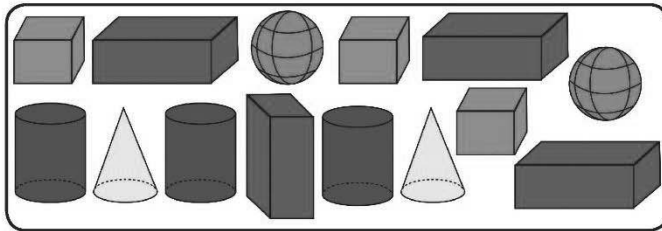
- 1) What is the shape of a pizza slice?
- 2) What is the shape of a cricket ball?

c) How many cones are there? Colour them yellow.

d) Name the solid figure shown:  Colour them brown.

e) How many  are there in the given picture? Colour them green.

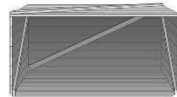
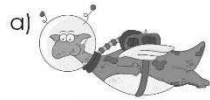
Solution: a) 3 b) 4 c) 2 d) Cylinder e) 2



Drill Time

Concept 1.1: Understand Spatial Words

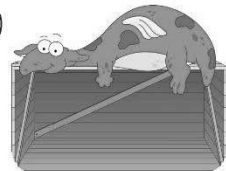
1) Where is the dragon with respect to the box in the given pictures?



b)



c)



d)



Important Words

Duration: 1 min

- Last class: cube, cuboid, cone, cylinder, sphere
- Today: –

Transactional Tip(s)

Duration: 27 min



Questioning:

- Ask a few one word answer questions in the class to revise the concept of solid figures. You may ask the following type of questions.
 - What is the shape of a gas cylinder?
 - What is the shape of a cupboard?
- Read TB: Pg. 7, 8, Example 4 and explain learners how to identify solid shapes. (How many cubes are there?).
- Then ask them to solve WB: Pgs. 3, 4, Q. 16, 18.

Class Pulse Check

Duration: 2 min



- 1) What is the shape of a watermelon?
- 2) What is the shape of an orange?

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Important Words

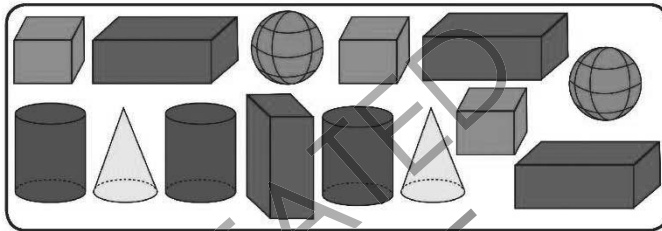
Duration: -

c) How many cones are there? Colour them yellow.

d) Name the solid figure shown:  Colour them brown.

e) How many  are there in the given picture? Colour them green.

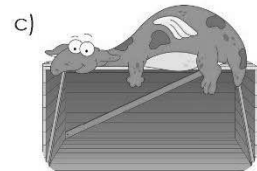
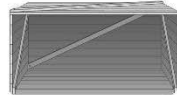
Solution: a) 3 b) 4 c) 2 d) Cylinder e) 2



Drill Time

Concept 1.1: Understand Spatial Words

1) Where is the dragon with respect to the box in the given pictures?



Transactional Tip(s)

Duration: 28 min



Practising :

- Write all the 26 letters on the blackboard and ask learners to find out letters which look like circle and which look like a triangle.
- Ask learners to draw 3 real life-objects that look like cone, cube, sphere and cuboid each.

Class Pulse Check

Duration: 2 min



- 1) What is the shape of the alphabet 'Q'?
- 2) What is the shape of a laptop screen?

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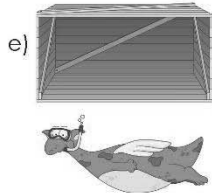
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8-11

Important Words

Duration: -



2) Complete the following table.

Object	Name of the solid figure
	
	
	
	

Transactional Tip(s)

Duration: 30 min



Peer Learning:

- Divide class into pairs and ask learners to solve TB: Pgs. 8-11, 'Drill Time'.
- Once they are done with solving ask them to exchange answers with other pairs and cross check.
- You may choose to give more practice questions for solving.

Class Pulse Check

Duration: -



Annual Day:

—

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Important Words

—

Duration: —



- 3) Circle the words that tell the position of the cat with respect to the ball. One is done for you.



h	y	p	m	y	z	d	x	i	c
z	c	j	y	f	l	g	m	h	i
k	x	e	q	b	e	l	o	w	n
a	b	o	v	e	w	m	s	x	f
f	e	b	p	t	d	j	g	s	r
e	h	o	y	w	p	z	l	m	o
m	i	n	m	e	w	j	f	z	n
o	n	z	p	e	g	q	c	k	t
e	d	l	u	n	d	e	r	d	o
h	t	r	h	j	a	d	t	a	f



- 4) Complete the following table.

Object	Shape of the base	Name of the figure formed
		
		

Transactional Tip(s)

Duration: —



- **Note:** The content in 'Drill Time' has already been covered.

Class Pulse Check

Duration: —



—

Annual Day:

—

Day:

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Actual Date:



Page(s):

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Important Words

Duration: —

—

Object	Shape of the base	Name of the figure formed
		
		

Transactional Tip(s)

Duration: —



- **Note:** The content in 'Drill Time' has already been covered.

Class Pulse Check

Duration: —



—



C – Exit Assessment

	Suggested questions to test the learning objective(s)	Learning objective(s)	Number of learners who answered correctly
1	What is the shape of a door? (Ans. Rectangle)	Periods 5, 6, 7, 8 - basic flat and solid figures	
2	How many sides does a rectangle have ? (Ans. 4)	Periods 5, 6, 7 - corners and sides of objects/figures	
3	Write the names of any three solids which have rectangular base. (Ans. Example: Book, brick, duster)	Periods 7, 8, 9 - outlines of the bases of objects	

Post-lesson Reflection		Handhold Learners	Challenge Learners
TB completed Yes <input type="checkbox"/> No <input type="checkbox"/> WB completed Yes <input type="checkbox"/> No <input type="checkbox"/>			
Enthusiastic participation <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Names		
Concept clarity in the classroom <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Exam Revision Strategy	Reteach <input type="checkbox"/> Revise <input type="checkbox"/> Practise <input type="checkbox"/>	
Concept clarity through the workbook <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	App Report	Number _____	Signature _____