Maths Magic

గణితంతో గమ్మత్తు

Class (తరగతి) - 1

Semester (సెమిస్టర్) - 1

Unit No. అధ్యాయం సంఖ్య	Name of the Unit అధ్యాయం	Month నెల	Pages పేజీలు
	Readiness Programme సంసిద్ధతా కార్యక్రమం *(Refer to Readiness book)*	*June & July* జూన్ & జూలై	
1.	Numbers (0 - 9) అంకెలు (0 - 9)	August-September ఆగష్టు - సెప్టెంబరు	100-171
2.	Addition కూడిక	October అక్టోబరు	172-193
3.	Subtraction తీసివేత	October అక్టోబరు	194-215
	Mind Map		216

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Z9Z2M1

Teacher corner

B9G4V3

Student corner

NEP - 2020

According to NEP 2020 and the National Curriculum Framework for Foundation Stage (NCF-FS) 2022, Mathematics learning in Classes 1 and 2 plays a key role in building a strong foundation for children. Children bring mathematical ideas from their daily life, home, and surroundings, and these experiences form the base for learning Mathematics. Early Mathematics focuses on understanding numbers, shapes, patterns, space, and measurement, while also developing higher-order skills such as problem-solving, reasoning, visualisation, communication, and making connections with real-life situations. Learning moves from simple to complex, helping children gradually build confidence and understanding. When Mathematics is taught in a joyful, activity-based, and meaningful way, it develops conceptual clarity, logical thinking, and a positive attitude, enabling children to enjoy learning and apply Mathematics in everyday life.

జాతీయ విద్యా విధానం – 2020 (NEP 2020) మరియు జాతీయ పాఠ్య ప్రణాళికా చట్రం పాఠశాల విద్య (NCF-FS) 2022, ప్రకారం, 1 మరియు 2 తరగతుల్లో గణిత అభ్యసన పిల్లలకు బలమైన పునాది వేయడంలో చాలా ముఖ్యమైనది. పిల్లలు తమ ఇంటి పరిసరాల నుండి, రోజువారీ జీవితం నుండి గణిత భావనలను తరగతికి తీసుకువస్తారు. అదే గణితం నేర్చుకోవడానికి ఆధారం అవుతుంది. ప్రారంభ దశలో పిల్లలు సంఖ్యలు, ఆకారాలు, నమూనాలు, స్థలం, కొలతలు వంటి భావనలను నేర్చుకుంటారు. అలాగే సమస్యలను పరిష్కరించడం, తర్కించడం, ఆలోచనలను వ్యక్తపరచడం, జీవితానికి గణితాన్ని అన్వయించడం వంటి నైపుణ్యాలను కూడా అభివృద్ధి చేసుకుంటారు. గణితం సరళం నుంచి క్లిష్టం దాకా, ఆనందంగా, కృత్యాల ద్వారా నేర్పితే పిల్లల్లో అవగాహన, ఆత్మవిశ్వాసం పెరిగి, గణితం నేర్చుకోవడం పట్ల ఆసక్తి కలుగుతుంది.

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Domain: Cognitive Development

For class 1 & 2: Cognitive Domain focuses on how children think, understand, and use knowledge. In mathematics, it helps learners observe, compare, reason, and solve problems logically. Developing cognitive skills enables students to build number sense and understand mathematical concepts meaningfully.

CG-7 Children make sense of world around through observation and logical thinking	C-7.1	Observes and understands different categories of objects and relationships between them
	C-7.2	Observes and understands cause and effect relationships in nature by forming simple hypothesis and uses observations to explain their hypothesis
	C-7.3	Uses appropriate tools and technology in daily-life situations and for learning
CG-8 Children develop mathematical understanding and abilities to recognize the world through quantities, shapes, and measures	C-8.1	Sorts objects into groups and sub-groups based on more than one property
	C-8.2	Identifies and extends simple patterns in their surroundings,shapes, and numbers
	C-8.3	Counts up to 99 both forwards and backwards and in groups of 10s and 20s
	C-8.4	Arranges numbers up to 99 in ascending and descending order
	C-8.5	Recognises and uses numerals to represent quantities up to 99 with the understanding of decimal place value system
	C-8.6	Performs addition and subtraction of 2-digit numbers fluently using flexible strategies of composition and decomposition
	C-8.7	Recognises multiplication as repeated addition and division as equal sharing
	C-8.8	Recognises basic geometric shapes and their observable properties
	C-8.9	Performs simple measurements of length, weight and volume of objects in their immediate environment
	C-8.10	Performs simple measurements of time in minutes, hours, day, weeks, and months
	C-8.11	Performs simple transactions using money up to ₹100
	C-8.12	Develops adequate and appropriate vocabulary for comprehending and expressing concepts and procedures related to quantities, shapes, space, and measurements
	C-8.13	Formulates and solves simple mathematical problems related to quantities, shapes, space, and measurements

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NIPUN Lakshyas

Grade	Skills	Subject : Maths	
CLASS 1	సంఖ్యాజ్ఞానం	Counts objects and correlates numerals up to 9	9 వరకు ఉన్న వస్తువులను లెక్కించి వాటిని అంకెలతో సరి పోల్చగలరు
		Recognizes, reads and writes numerals up to 9	సంఖ్యలను 9 వరకు గుర్తించగలరు, చదవగలరు, రాయగలరు.
		Identifies and copies/draws simple patterns.	చిన్నచిన్న నమూనాలను గుర్తించగలరు మరియు చూసి గీయగలరు
		Compares two groups in terms of number of objects and uses words like more than /less than/equal to etc.	రెండు సమూహాలలోని వస్తువులను, వస్తువుల సంఖ్యను పోల్చి అవి ఎక్కువ, తక్కువ లేదా సమానమా అనేది చెప్పగలరు.
		Arranges numbers/objects /shapes /occurrence of events in a sequence	అంకెలను, వస్తువులను, ఆకారాలను, సన్నివేశ క్రమాన్ని వరుసక్రమంలో ఉంచగలరు
		Classifies objects based on their observable characteristics and communicates the criteria of classification	వస్తువులను అవి కనిపించే లక్షణాల ఆధారంగా వర్గీకరించి, వర్గీకరణ ఏ ప్రమాణాల ప్రకారం చేయాలి అనేది చెప్పగలరు.
		Uses vocabulary for comparative words like longer, longest, taller, tallest, shorter, shortest, heavier than, lighter than etc. in the context of different objects around him/her.	తన చుట్టూ ఉన్న వివిధ సందర్భాలలో వస్తువులను పెద్దది, చాలా పెద్దది, పొడవైనది, చాలా పొడవైనది, చిన్నది, చాలా చిన్నది, దాని కంటే బరువైనది, దీని కంటే తేలికైనది, వంటి పోలిక కోసం పదజాలాన్ని ఉపయోగించ గలరు
		Counts objects and develops number sense up to 20	వస్తువులను లెక్కించడం ద్వారా 20 వరకు సంఖ్యా భావనను పెంపొందించుకుంటారు
		Identifies and extends simple patterns in their surroundings, shapes and numbers	చుట్టూవున్న నమూనాలను ఆకారాలను, అంకెలను నిత్యజీవితంలో గుర్తించి వివరిస్తారు.
		Using addition and subtraction of numbers up to 9 (sum not exceeding 20) in daily life situations.	నిత్యజీవితంలో 9 సంఖ్య వరకు కూడిక, తీసివేత చేస్తారు. (మొత్తం 20 కి మించకుండా)
		Estimates and verifies length using non-standard non-uniform units like hand span, footstep, fingers etc. and capacity using non-standard uniform units like cup, spoon, mug etc.	పిల్లలు ప్రామాణికం కాని కొలతలు చేతితో, కాలి అడుగుతో, వేళ్ళతో కొలవడం అలాగే చెంచాతో, కప్పుతో, మగ్గుతో కొలవడం చేయగలరు
		Identifies Indian currency notes and coins up to INR 20	రూ. 20 వరకు కరెన్సీని గుర్తించడం

గమనిక : NIPUN పునాది అక్షరాస్యత, సంఖ్యా జ్ఞానం సాధించడం పై పని చేస్తున్న మిషన్. ఇది ప్రాథమిక తరగతులలో సంవత్సరాంతానికి విద్యార్థులు సాధించవలసిన లక్ష్యాలను నిర్దేశించడం జరిగింది. వీటిని ప్రతి విద్యార్థి సంవత్సరాంతానికి సాధించాలి.

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UNIT 1

Numbers (0-9)

C6C1A9

Learner will be able to

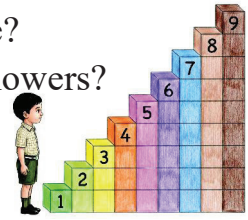
- Count things in groups.(CG-8)
- Compare the objects.(CG-8)
- Count objects up to 9.(CG-8)
- Separate similar things from the group, count and write the symbols up to 9.(CG-8)
- Identify the equal numbers, before, between and after numbers.(CG-8)
- Identify the bigger and smaller numbers.(CG-8)



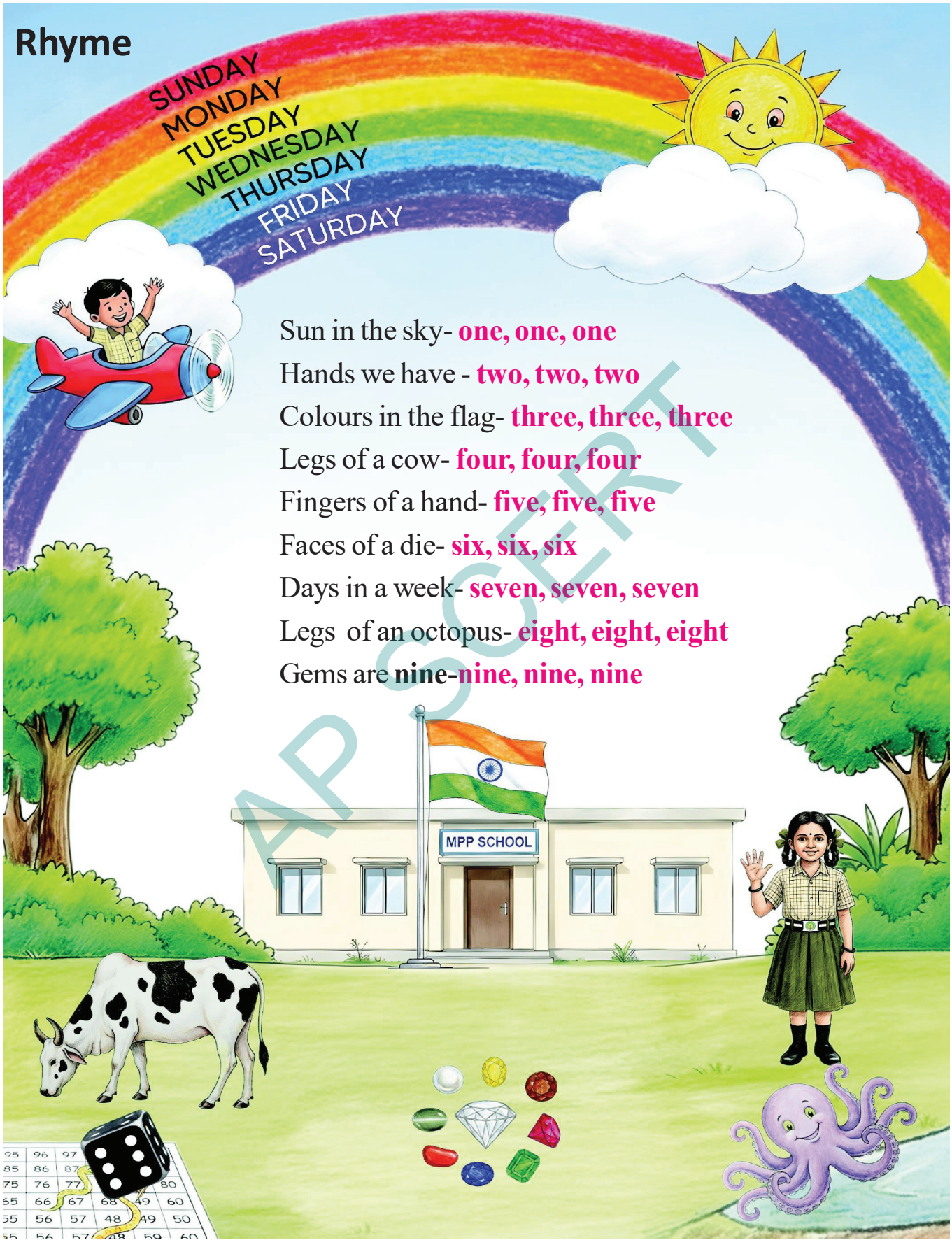
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Teacher note: Get your pupils to observe and speak about the picture. Ask the following questions and discuss.

1. What do you observe in the picture?
2. Do you see the teddy bear?
3. How many boys are there?
4. How many birds are there?
5. How many flower plants are there?
6. What are the children doing?
7. How many butterflies are there?
8. How many monkeys are there?
9. Which are more? Leaves or flowers?
10. How many balls are there?



Rhyme



Sun in the sky- **one, one, one**
Hands we have - **two, two, two**
Colours in the flag- **three, three, three**
Legs of a cow- **four, four, four**
Fingers of a hand- **five, five, five**
Faces of a die- **six, six, six**
Days in a week- **seven, seven, seven**
Legs of an octopus- **eight, eight, eight**
Gems are **nine-nine, nine, nine**

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Story Time

One fine morning in the garden,



One (1) little bird flew from its nest.



It saw two (2) squirrels playing.



Together they saw three (3) butterflies flying.

There was a pond near by the garden.



In the pond four (4) frogs were croaking.



They saw five (5) flowers blooming.



Nearby six (6) bees were buzzing.

On the other side of the pond,



Seven (7) ducklings were swimming.



Close by eight (8) ants were moving in a line.



Nine (9) children were playing.

Now you are reading. Ha…ha…ha….

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ONE - 1

Look at the picture given below. Count and say the number of things of each type.



How many?

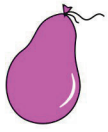
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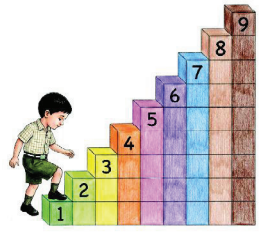
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Count and Read.

				1
ONE Balloon	**ONE** Dot	**ONE** Rupee coin	**ONE** Finger	**ONE**

Note: Ask the students to observe the different things in the picture. Help them to count and tell the number of each type of objects.

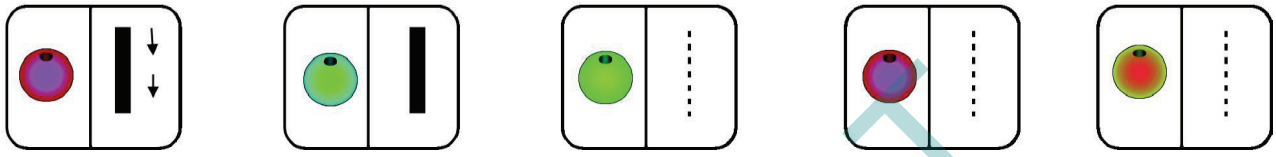


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Colour it

1 ONE 

Count the beads in each box. Read and write the number by joining the dots.



ONE ONE ONE ONE

Colour the diamonds according to the given number.

1



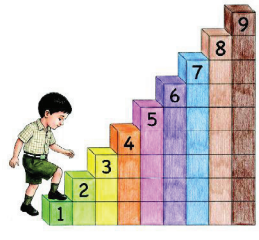


Use two match sticks to form a number 1.

Let us know



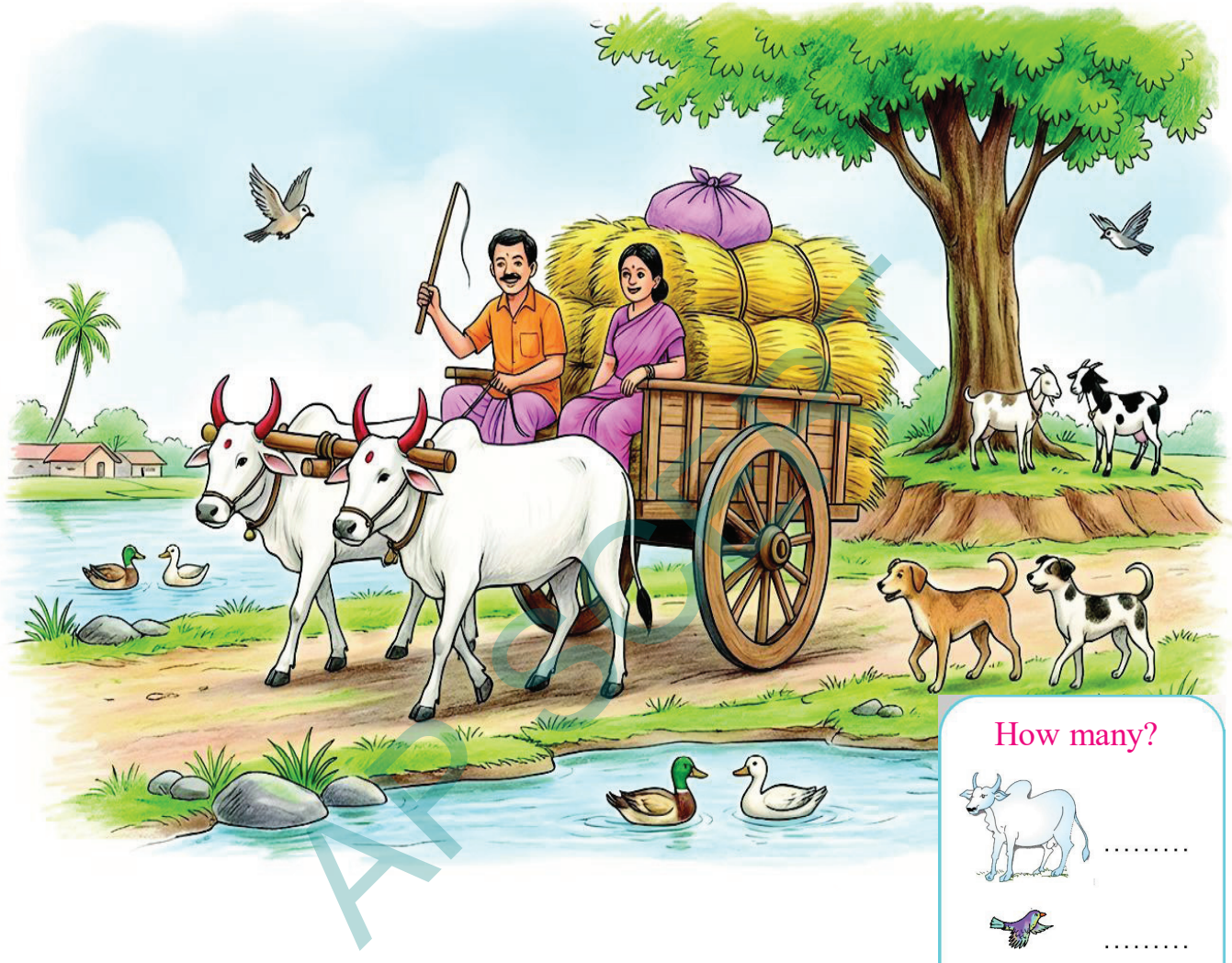
How many tails do animal have?



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TWO - 2

Look at the picture given below. Count and say the number of things of each type.



How many?

 .....

 .....

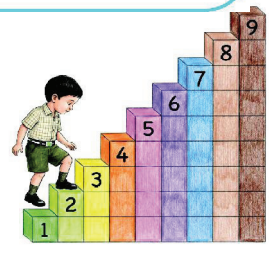
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Count and Read.

				2
TWO Balloons	**TWO** Dots	**TWO** Rupees	**TWO** Fingers	**TWO**

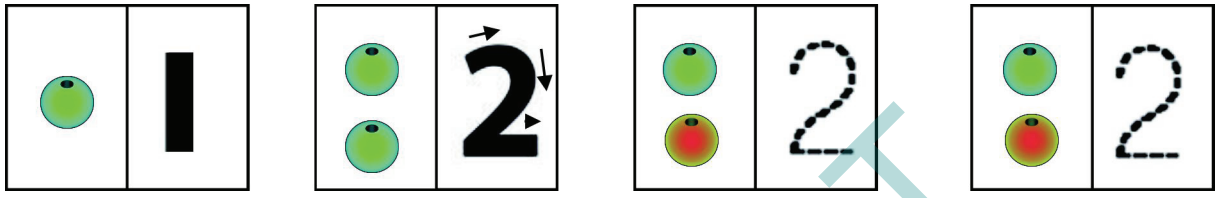
Note: Ask the students to look at the different things in the picture. Help them to count and tell the number of objects of each type.



Colour it

2 TWO  

Count the beads in each box. Read and write the number by joining the dots in each box.



TWO TWO TWO TWO

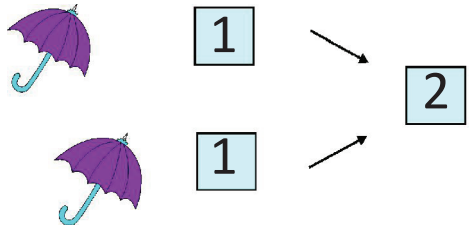
Colour the strawberries according to the given number.

2 

Colour the stars Labelled with number 2 and say the pattern in it.

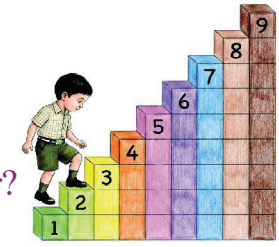








Let us know Can you tell the organs in our body that are 2 in number?



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THREE - 3

Look at the picture given below. Count and say the number of things of each type.



How many?

 .....

 .....

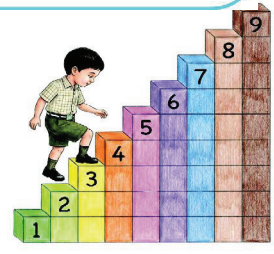
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Count and Read.

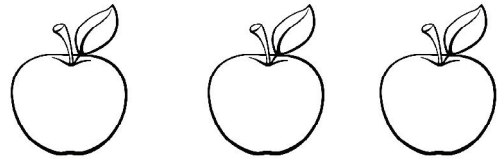
				3
THREE Balloons	**THREE** Dots	**THREE** Rupees	**THREE** Fingers	**THREE**

Note: Ask the students to look at the other things in the picture. Help them to count and tell the number of objects of each type.

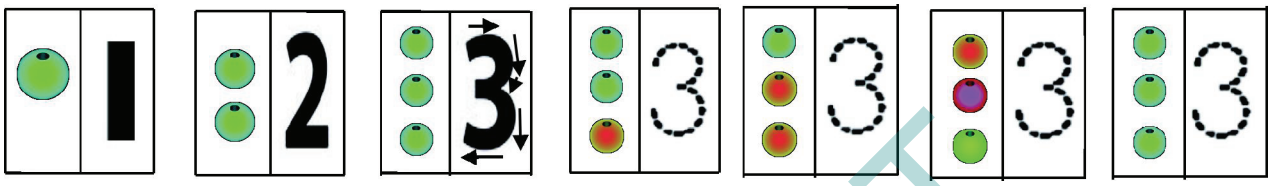


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Colour it

3 THREE 

Count the beads in each box. Read and write the number by joining the dots.



THREE THREE THREE THREE THREE

Colour the brinjals according to the given number.

3

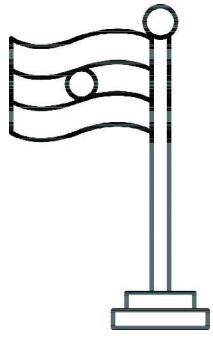


Let us know

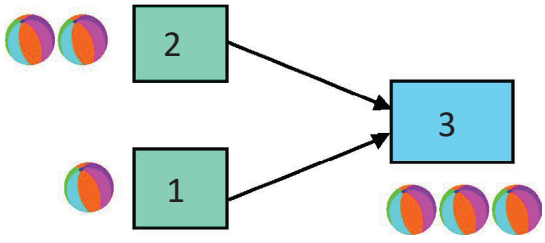


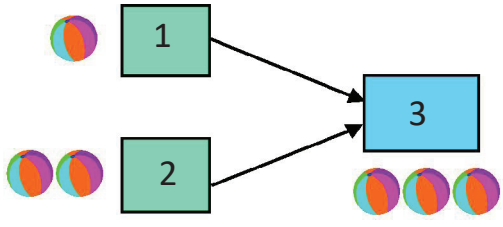
How many colours are there in Indian National Flag?

Colour the Flag of India with right colours.



Look and Count





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FOUR - 4

Look at the picture given below. Count and say the number of things of each type.



How many?

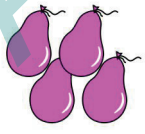
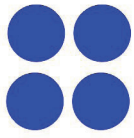
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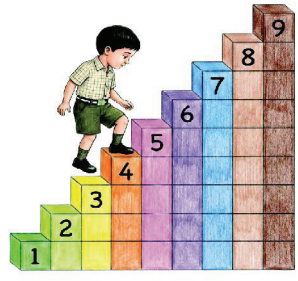
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 .....

Count and Read.

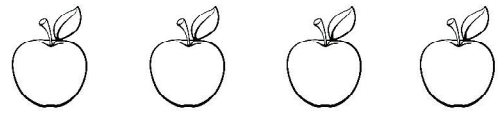
				4
FOUR Balloons	**FOUR** Dots	**FOUR** Rupees	**FOUR** Fingers	**FOUR**

Note: Ask the students to look at the other things in the picture. Help them to count and tell the number of objects of each type.

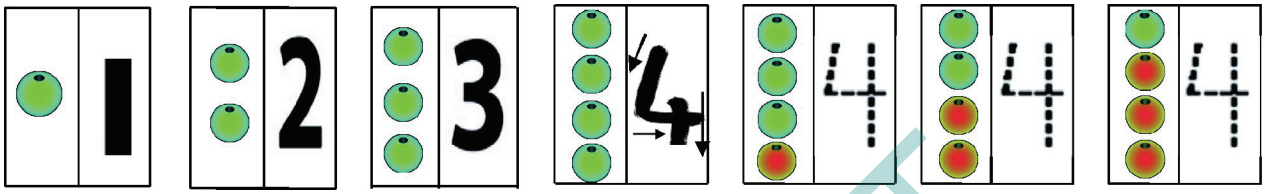


AP SCERT

Colour it

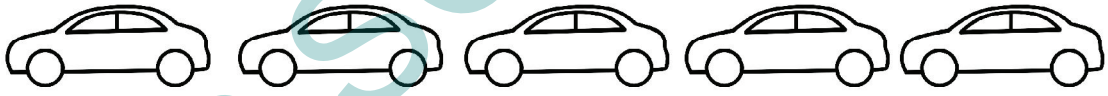
4 FOUR 

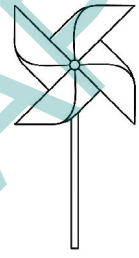
Count the beads in each box. Read and write the number by joining the dots.



FOUR FOUR FOUR

Colour the cars according to the given number.

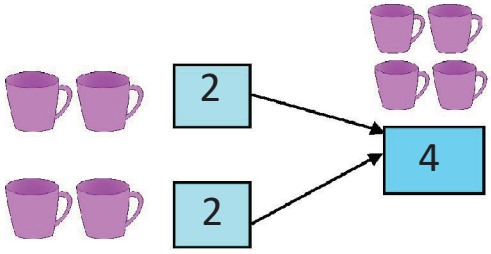
4 

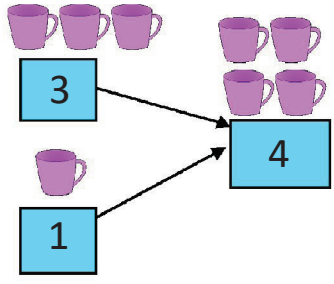
Colour the wind fan. 

Ask your teacher to prepare wind fan made by paper.



Look and Count





Let us know : There are 4 directions- East, West, North and South

ARSCERT



FIVE - 5

Look at the picture given below. Count and say the number of things of each type.



How many?

 .....

 .....

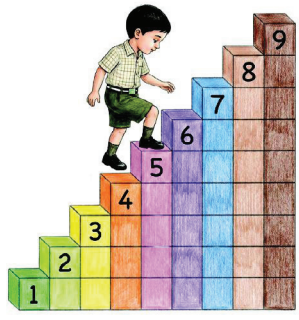
 .....

 .....

Count and Read.

				5
FIVE Balloons	**FIVE** Dots	**FIVE** Rupees	**FIVE** Fingers	**FIVE**

Note: Ask the students to look at the other things in the picture. Help them to count and tell the number of objects of each type.

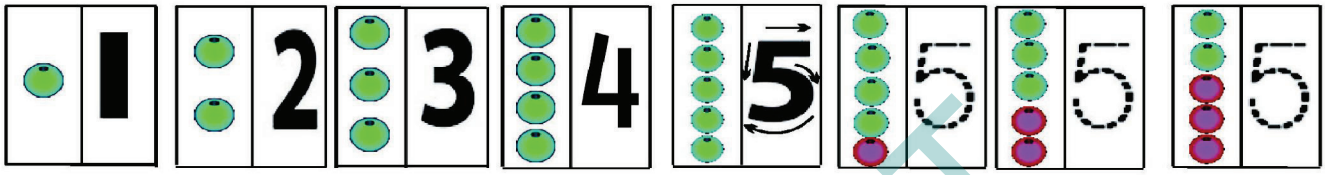


APSCERT

Colour it

5 FIVE 

Count the beads in each box. Read and write the number by joining the dots.



FIVE FIVE FIVE

Colour the pots according to the given number.

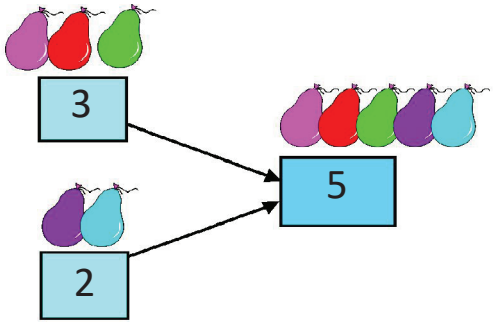
5 

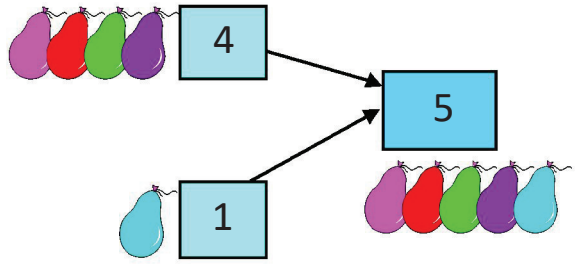
Let us know



The five sense organs in our body are eyes, nose, tongue, ears and skin.

Look and Count





© NCERT

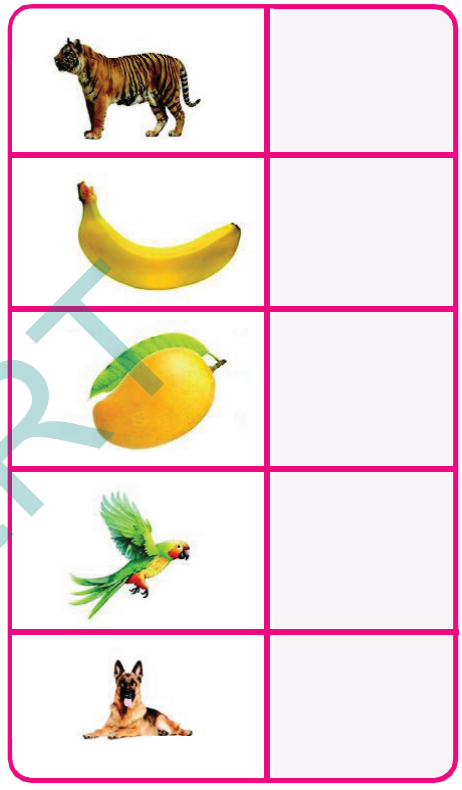
Do these

Observe the picture. Count each object and write the number in the table.

Pictures



Table



LET US PLAY

SHAKE AND SPILL (Number Combination Game)

Take four tamarind seeds (one side white). Shake and spill them on the ground. The white colour represents one number and the black colour represents another number. Count and write the numbers in the table given below.

4	
white	black
1	3

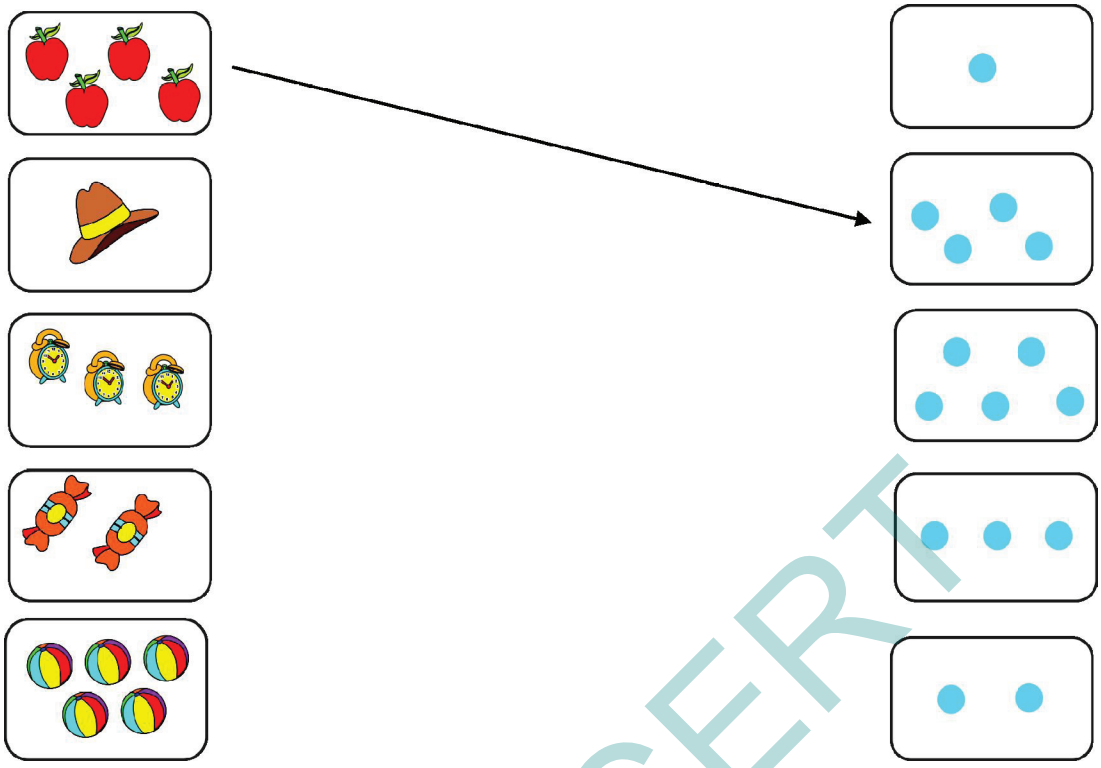


Note If the same combination occurs, continue the game till you get another combination.

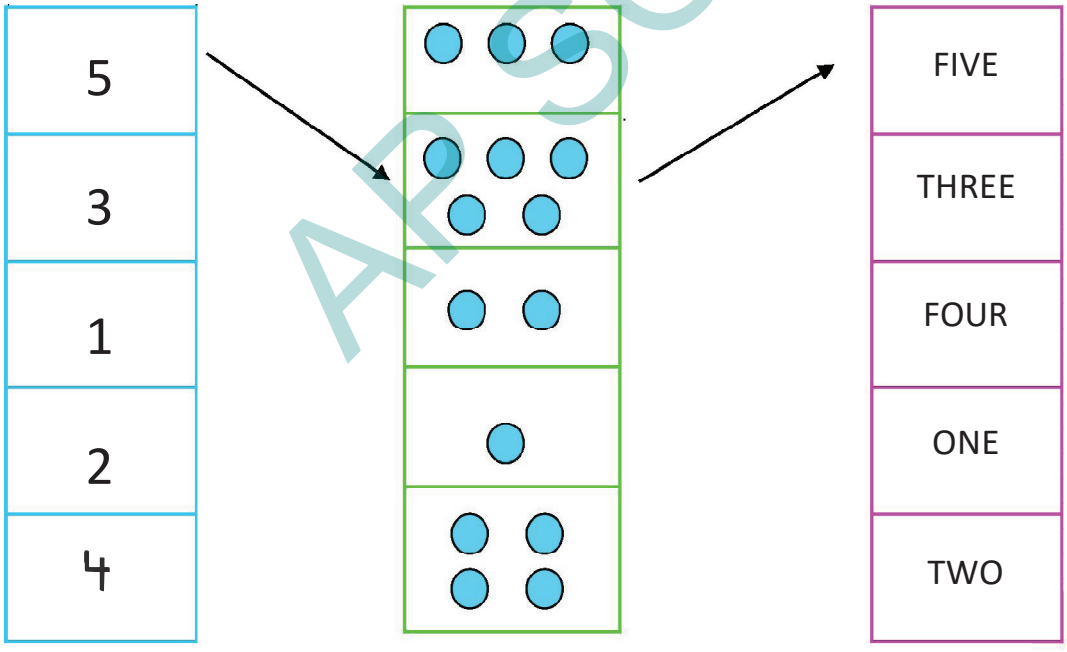
You can continue this game with a different number of tamarind seeds.

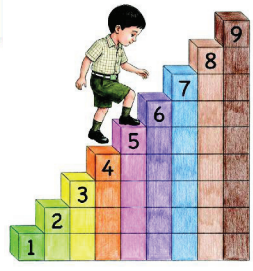
AP SCERT

Match the following.



Match the following.





APSCERT

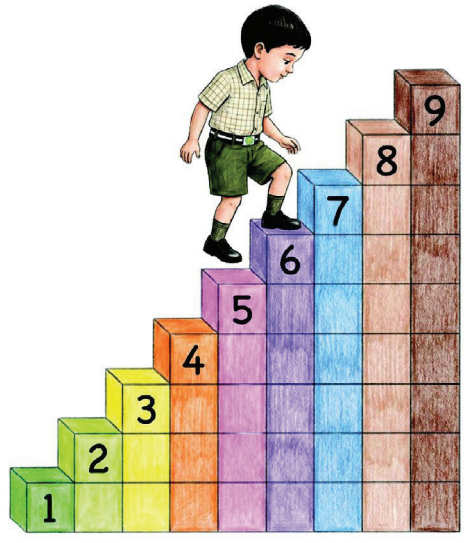
Numbers 6 to 9

Look at the picture given below. Count and say the number of things of each type.



Get your pupils to observe the above picture.

1. What do you observe in the picture?
2. How many children are there?
3. How many mangoes are there?
4. How many ants are there?
5. How many flowers are there?



Note: Ask some more questions based on the picture.

© NCERT



SIX - 6

Look at the picture given below. Count and say the number of things of each type.



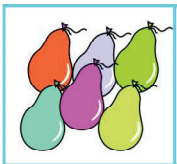
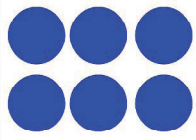
How many?

.....

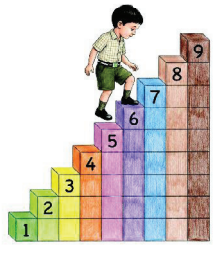
.....

.....

Count and Read.

			6
SIX Balloons	**SIX** Dots	**SIX** Rupees	**SIX**

Note: Ask the students to look at the other things in the picture. Help them to count and tell the number of objects of each type.

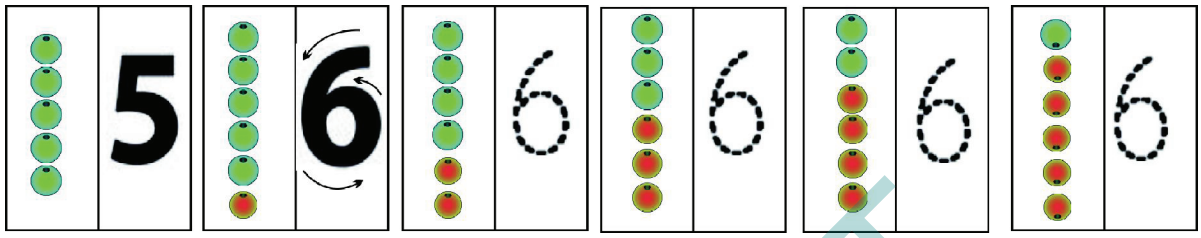


© NCERT

Colour it

6 SIX

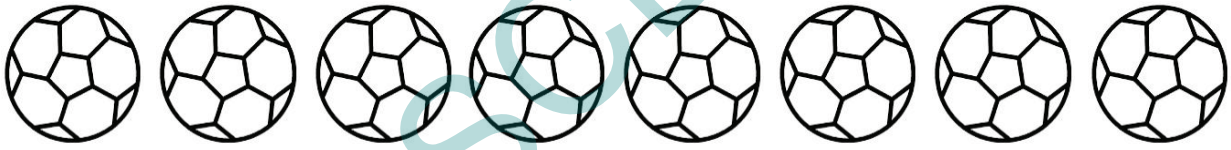
Count the beads in each box. Read and write the number by joining the dots.



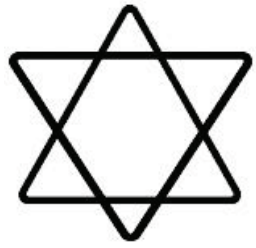
SIX SIX SIX

Colour the balls according to the given number.

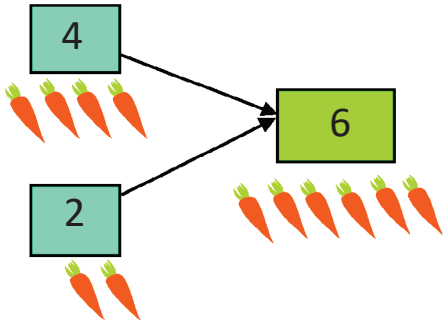
6

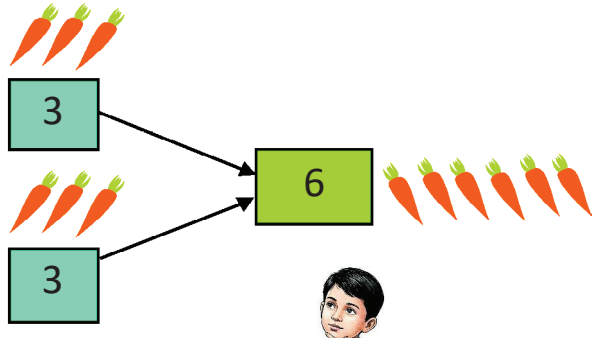


Make a star using six match sticks.



Look and Count







Let us know Do you know the names of six seasons ?

APSCERT

SEVEN - 7

Look at the picture given below. Count and say the number of things of each type.



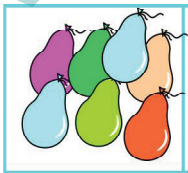
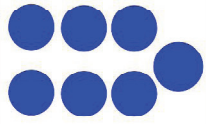
How many?

 .....

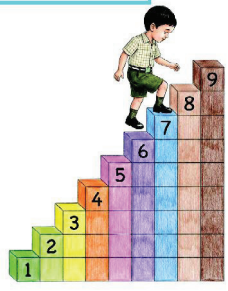
 .....

 .....

Count and Read.

			7
SEVEN Balloons	**SEVEN** Dots	**SEVEN** Rupees	**SEVEN**

Note: Ask the students to look at the other things in the picture. Help them to count and tell the number of objects of each type.

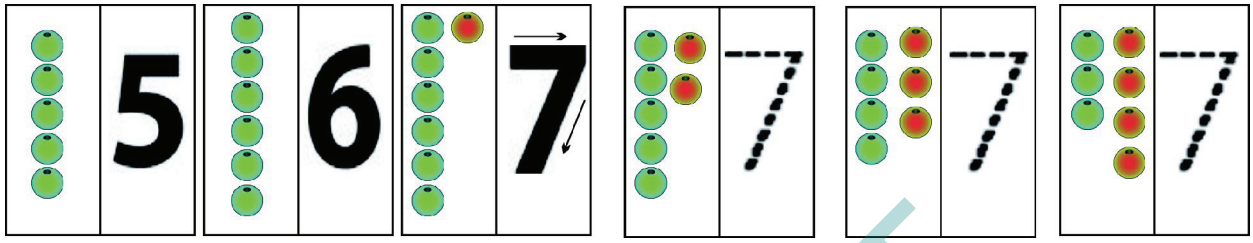


APSCERT

Colour it

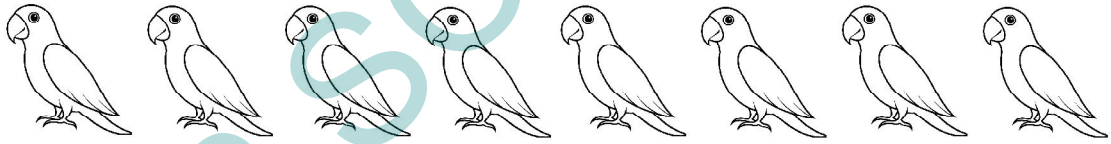
7 SEVEN 

Count the beads in each box. Read and write the number by joining the dots.



SEVEN SEVEN SEVEN

Colour the parrots according to the given number.

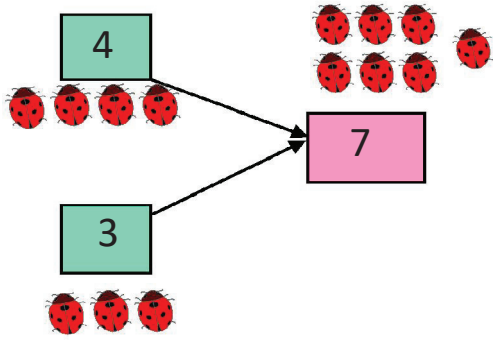
7 

Let us know

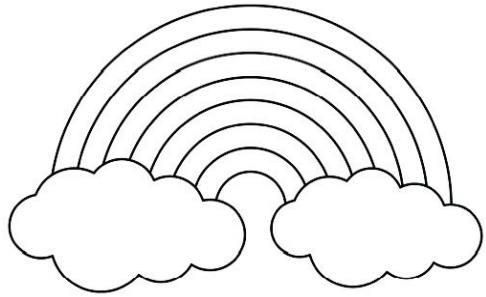


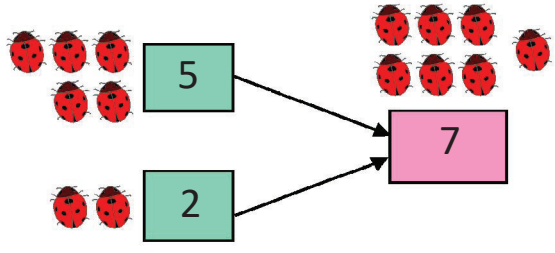
How many days in a week?

Look and Count



Colour the Rainbow.





APSCERT

EIGHT - 8

Look at the picture given below. Count and say the number of things of each type.



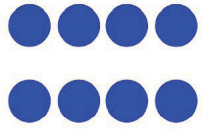
Count and Read.

How many?

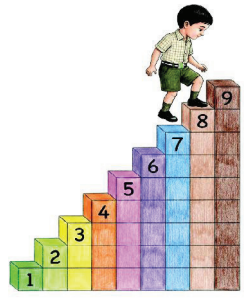
 .....

 .....

 .....

			8
EIGHT Balloons	**EIGHT** Dots	**EIGHT** Rupees	**EIGHT**

Note: Ask the students to look at the other things in the picture. Help them to count and tell the number of objects of each type.

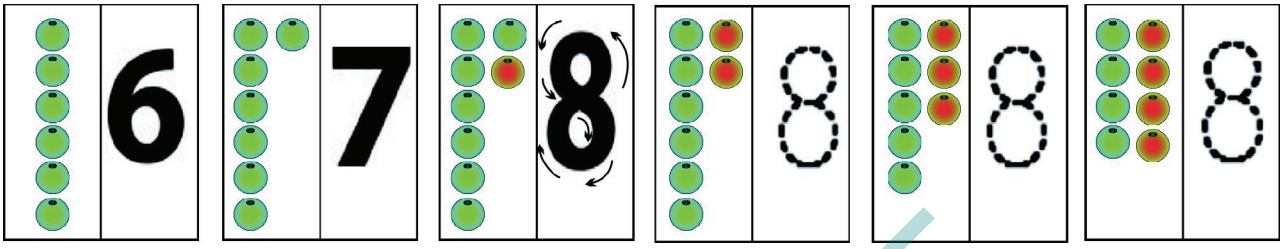


APSCERT

Colour it

8 EIGHT

Count the beads in each box. Read and write the number by joining the dots.



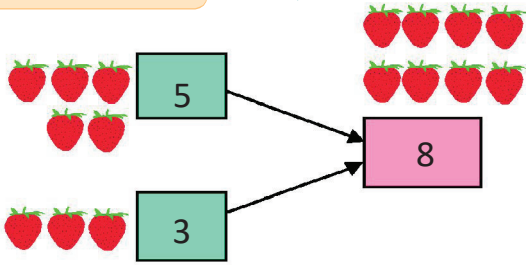
EIGHT EIGHT EIGHT

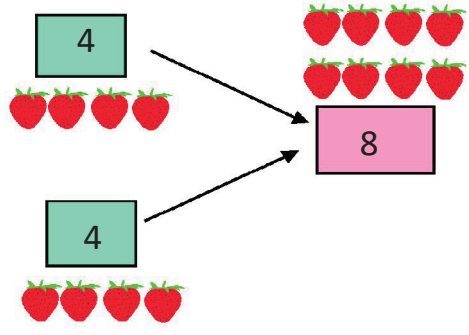
Colour the balloons according to the given number.

8



Look and Count





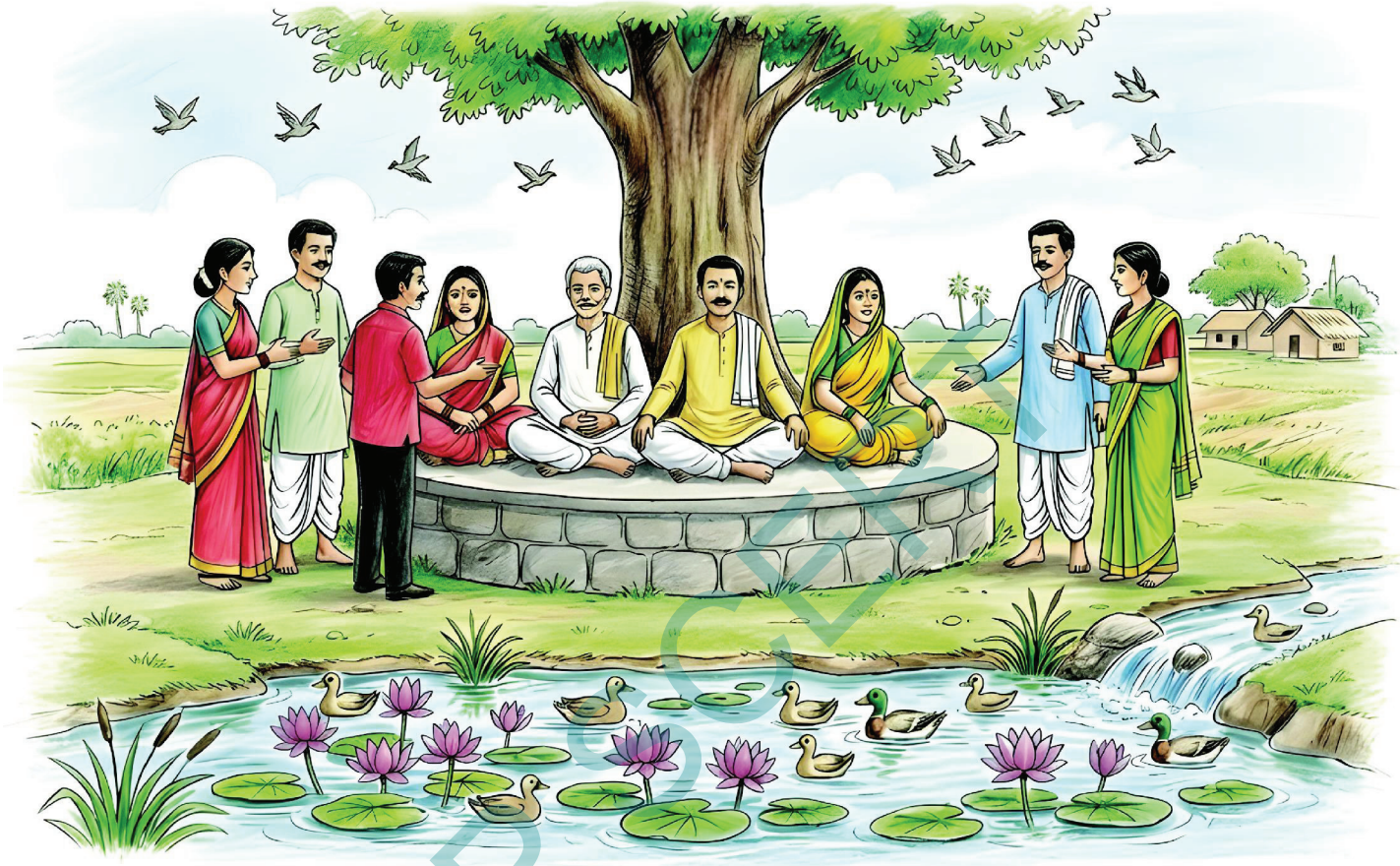
Let us know How many arms has an octopus?



ABSCERT

NINE - 9

Look at the picture given below. Count and say the number of things of each type.



How many?

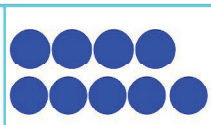


.....

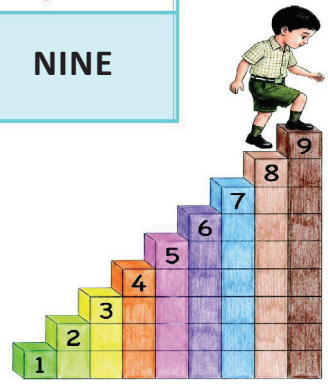
.....

.....

Count and Read.

			9
NINE Balloons	**NINE** Dots	**NINE** Rupees	**NINE**

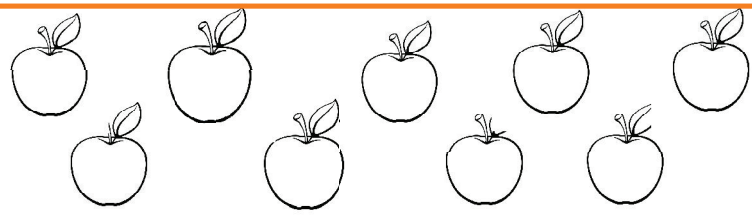
Note: Ask the students to look at the other objects in the picture. Help them to count and tell the number of objects of each type.



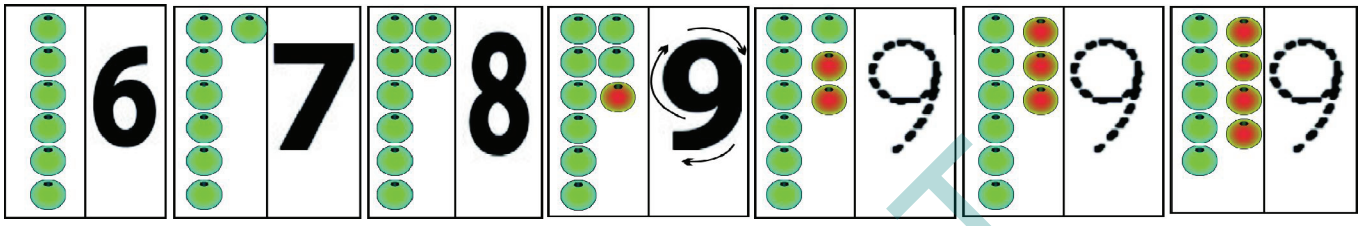
APSCERT

Colour it

9 NINE



Count the beads in each box. Read and write the number by joining the dots.



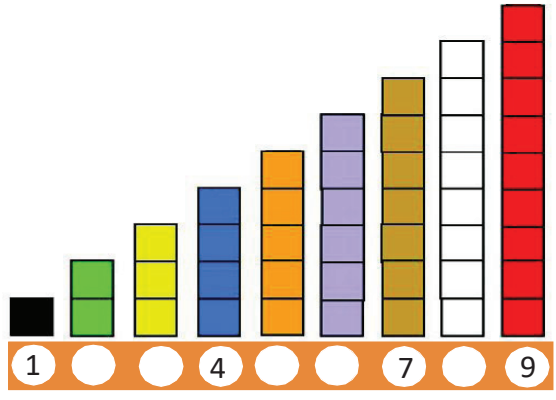
NINE NINE NINE

Colour the flowers according to the given number.

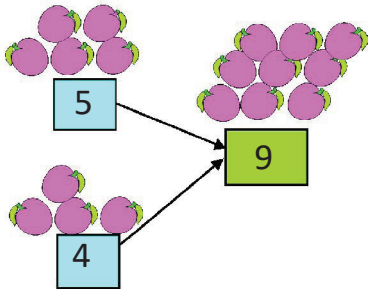
9

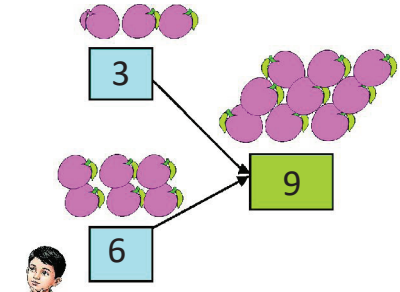


Count the blocks, write the number below the picture.



Look and Count



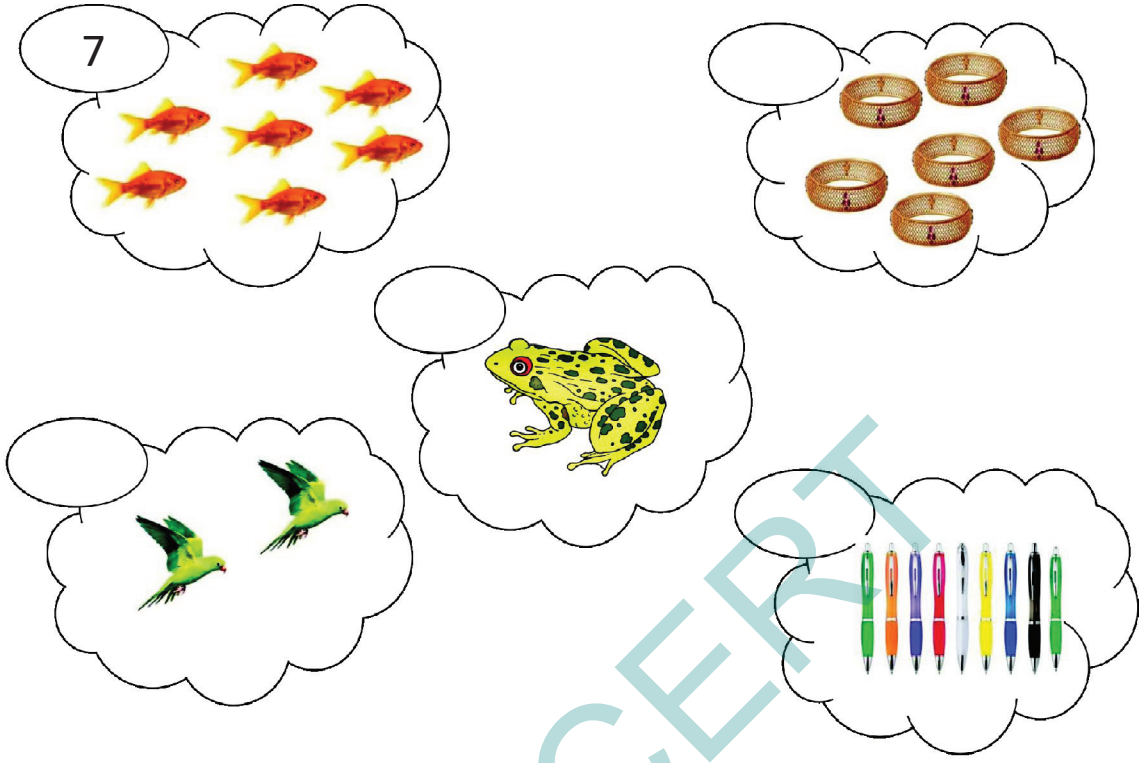




Let us know How many gems on the Earth?

APSCERT

Count the objects and write the correct number in the ◯ .



Circle the correct number.



1 3 5
9 2 4

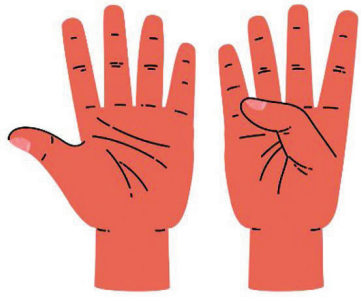
6 2 5
3 1 7



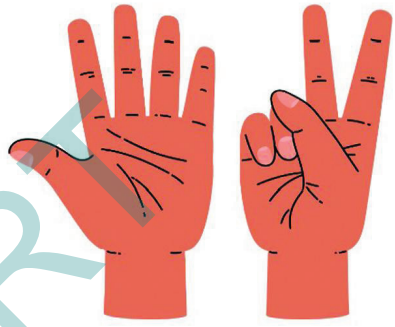
APSCERT

Match the number of birds on each branch with the correct number of fingers.

















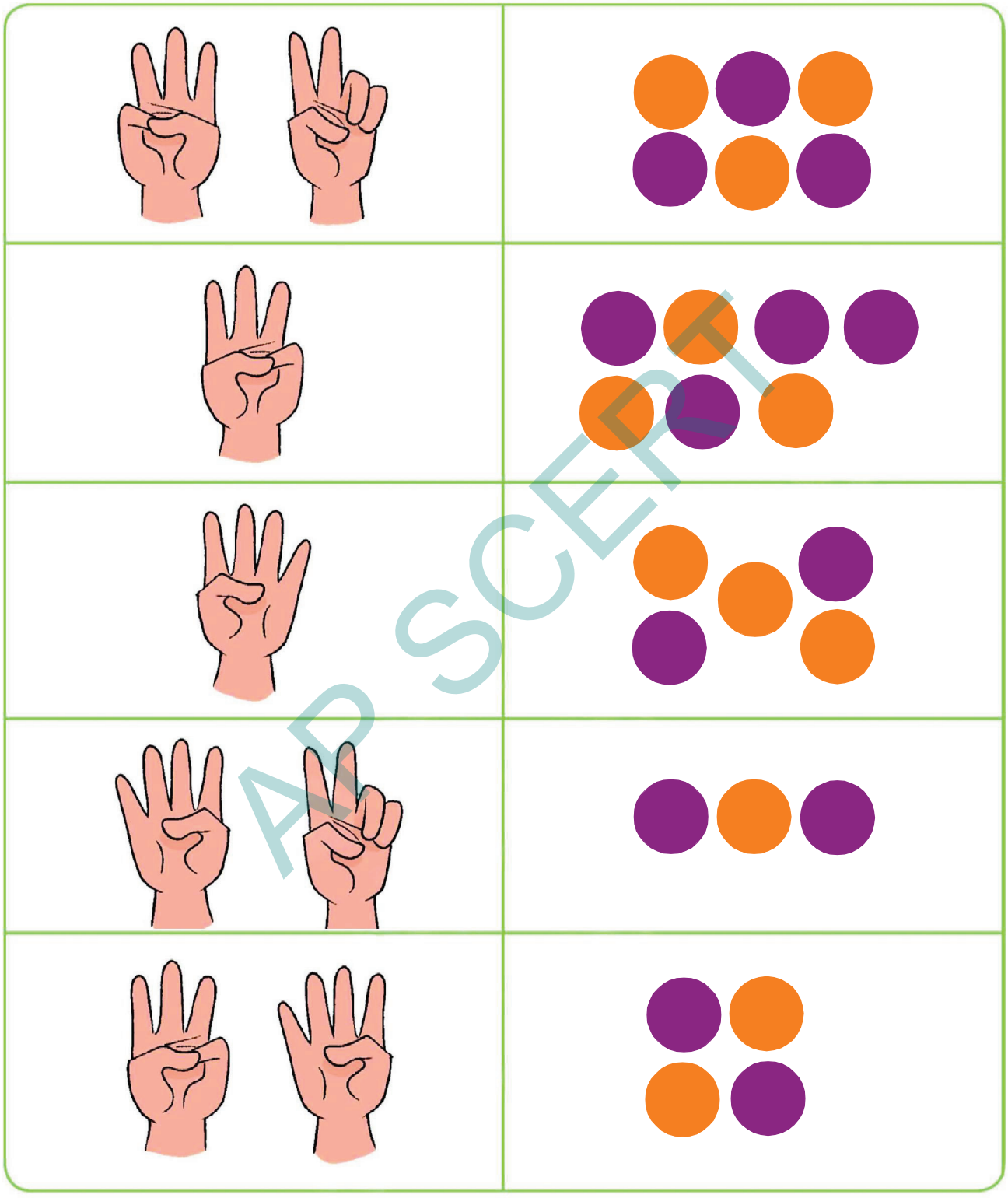
Let us Play - Number and clap

When the teacher says the number, the students have to clap according to the number.

For the number 4 - 4 claps the game continues..... ....

APSCERT

Match the fingers with correct number of dots.



AP SCERT



ZERO "0"

Let us Sing :

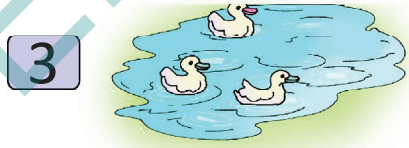
Zero, Zero, Zero	-	You are the Hero
You are something	-	You are nothing
You are special	-	You are crucial
Right side to the number	-	You are the hero
Left side to the number	-	You are the zero



Four little ducks are swimming in the pond.



One little duck went away.
How many ducks are there?



One more duck went away.
How many ducks are there?



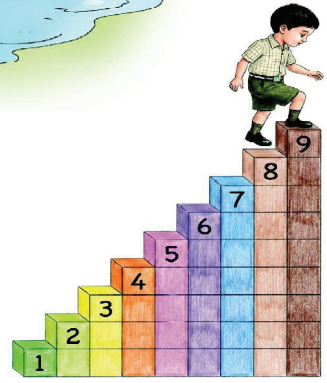
Another duck went away.
How many ducks are there?



The last duck also went away.
How many ducks are there?



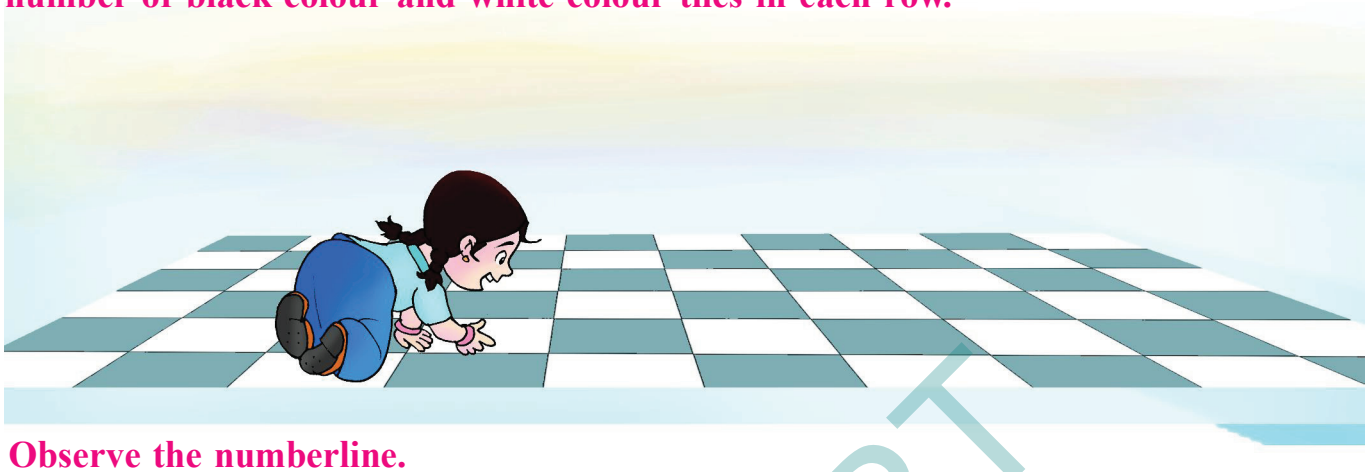
There are no ducks in the pond.
There are '0' ducks.



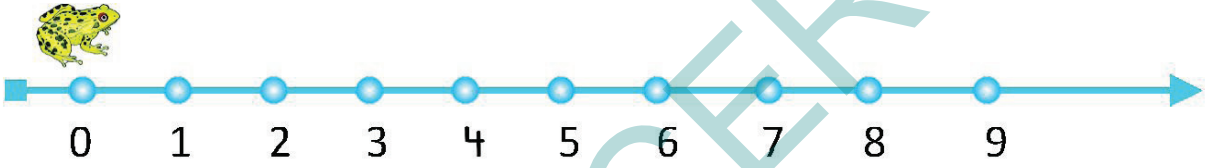
AP SCERT

Numberline

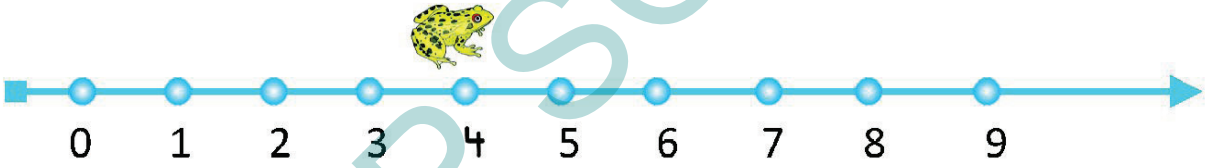
Jyothi is counting the tiles in a row. You also count each colour of the tile. Tell the number of black colour and white colour tiles in each row.



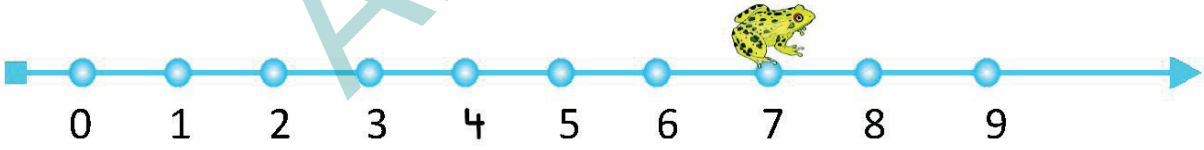
Observe the numberline.



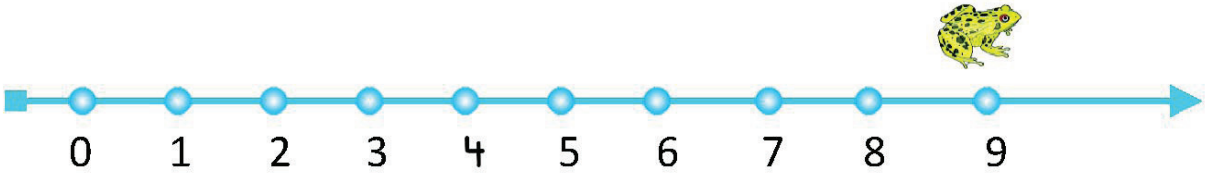
Frog is at point **"0".**



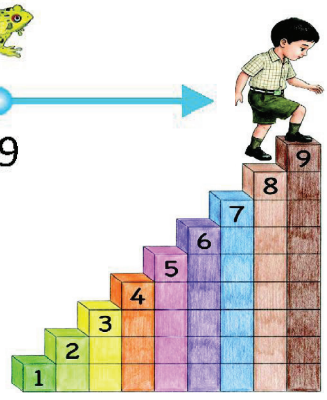
Frog is at point **"4".**



Frog is at point _____.

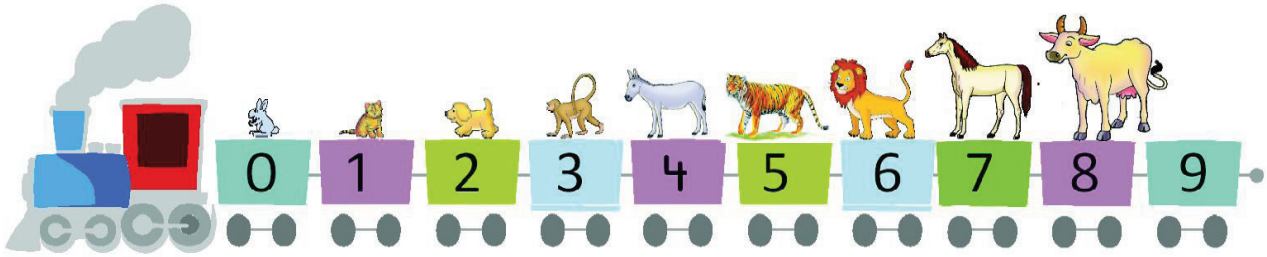


Frog is at point _____.



APSCERT

Before – Between – After



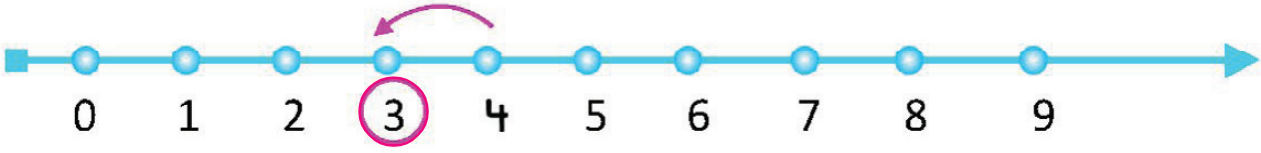
1. Tell the names of animals.
2. What is your favourite animal?
3. Which animal is before the donkey?
4. Which animal is after the donkey?
5. Which animal is between the dog and the donkey?
6. What is the number of the bogie in which the donkey is found?
7. Which bogie is before the bogie number 4?
8. Which bogie is after the bogie number 4?
9. Tell the number in between 6 and 8.
10. Which number lies between 7 and 9?

Note: Let your pupils to observe the above picture. Ask questions to understand the concept "before – between – after".

AP SCERT

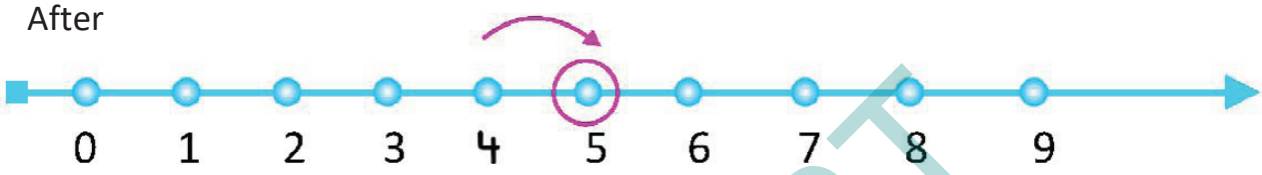
Observe the numberline.

Before



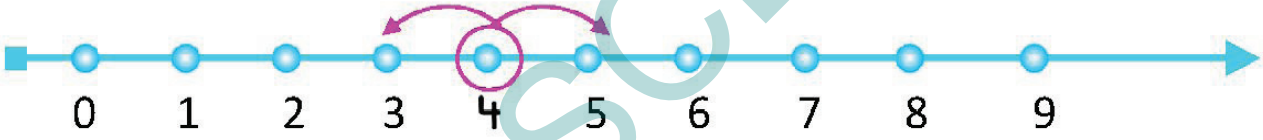
3 comes before 4.

After



5 comes after 4.

Between



4 is between 3 and 5.

APSCERT

Do These

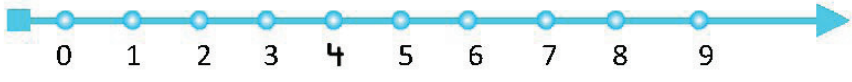
1) Circle the number before 6.



2) Circle the number before 5.



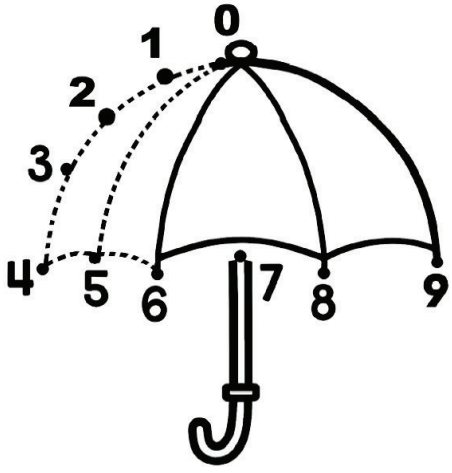
3) Circle the number after 3.

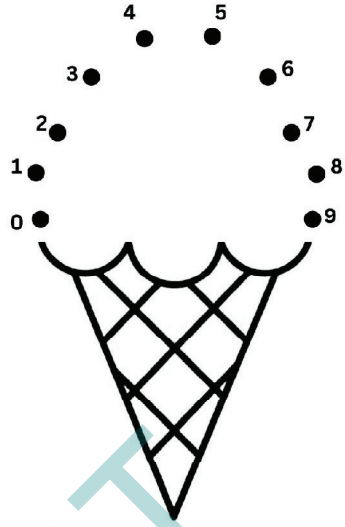


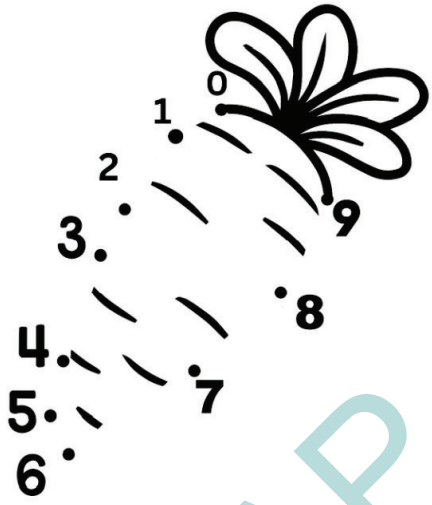
4) Circle the number after 7.



Complete the pictures by connecting the numbers in correct order and colour it.









Join the dots to make numbers.

1 1 1 1 1 1 1 1

2 2 2 2 2 2 2 2

3 3 3 3 3 3 3 3

4 4 4 4 4 4 4 4

5 5 5 5 5 5 5 5

6 6 6 6 6 6 6 6

7 7 7 7 7 7 7 7

8 8 8 8 8 8 8 8

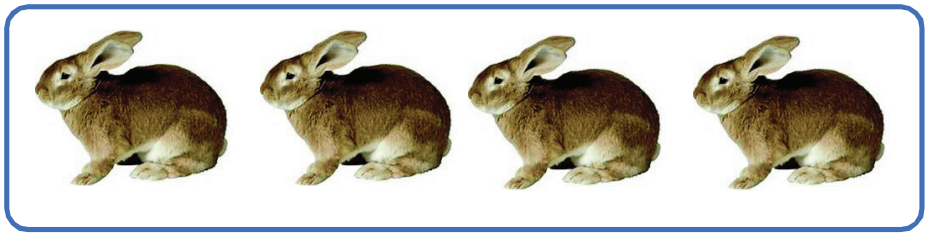
9 9 9 9 9 9 9 9

0 0 0 0 0 0 0 0

AP SCERT

Do these

Count and match.



5



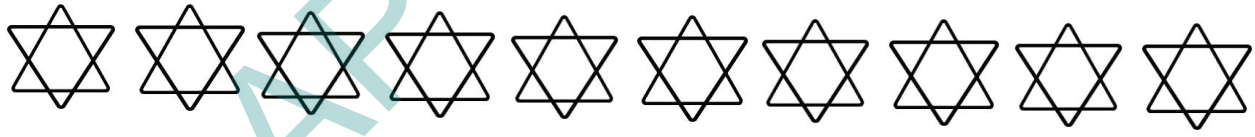
4



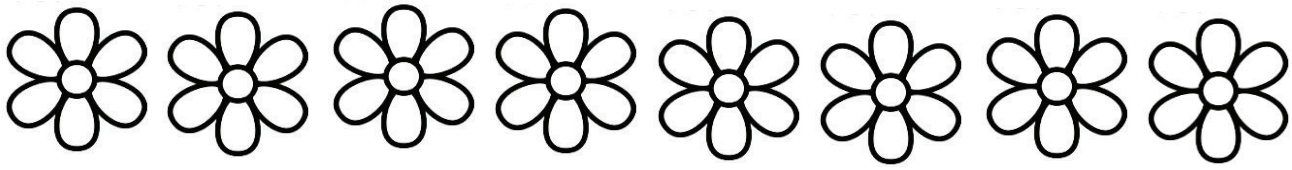
6

Count and colour

Colour 8 stars.



Colour 6 flowers.

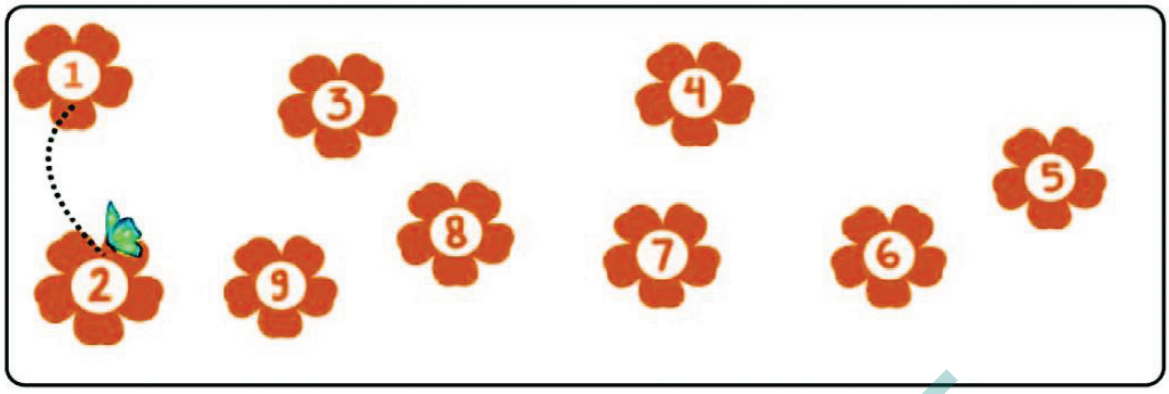


Colour 5 balls.



AR SCERT

Draw a line from number 1 to 9 in the correct order. The lines should not cross each other.



Rishi covered some numbers with his hand prints. Write the numbers covered with hand prints.

a) 3, ,5, ,7 Ans: ▢▢

b) , 3, 4, 5, Ans: ▢▢

c) 5, 6, , 8, Ans: ▢▢

d) 4, ,6, ,8 Ans: ▢▢

Colour the biggest number in Red and the smallest number in Green.

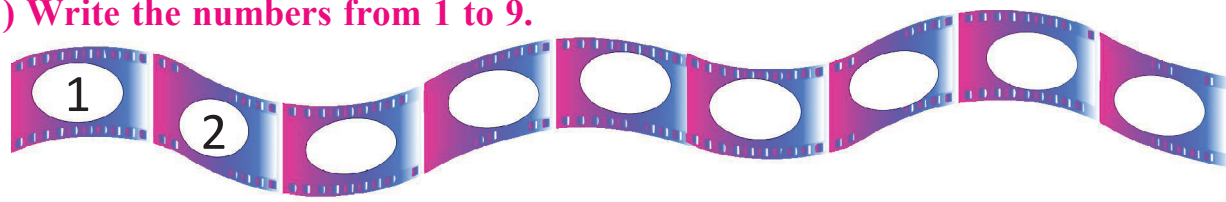
“589627”

Project work : Write numbers from 1 to 9 on a paper with gum (With a stick). Pour sand on the paper. See what happens? Present it in your class room. You can try it with colours also.

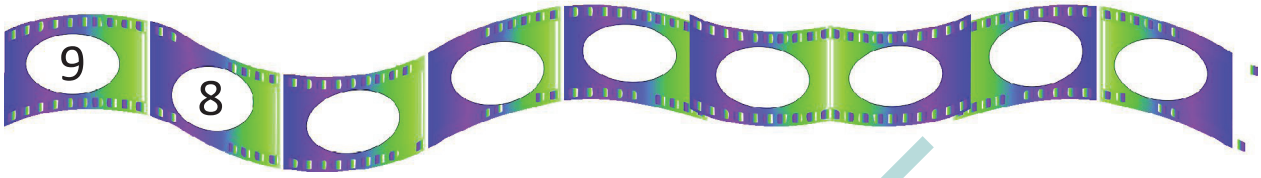
APSCERT

EXERCISE

1) Write the numbers from 1 to 9.



2) Write the numbers from 9 to 1.



3) Write the before numbers.

a) ☐ 7

b) ☐ 4

c) ☐ 2

4) Write the after numbers.

a) 6 ☐

b) 3 ☐

c) 1 ☐

5) Write between numbers.

a)	6		8	b) 4		6
c)	2		4	d) 1		3
e)	7		9	f) 3		5

6) Which number comes after 5? ( )

a) 4 b) 6 c) 7

7) Identify the number THREE. ( )

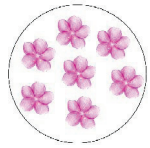
a) 3 b) 4 c) 5

AP SCERT

Improve your learning

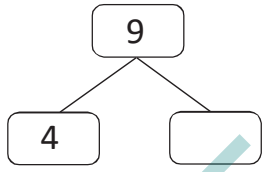
1. What is the number form of EIGHT? ( )
   a) 8 b) 8th c) 18th

2. How many flowers are there in the picture? ( )



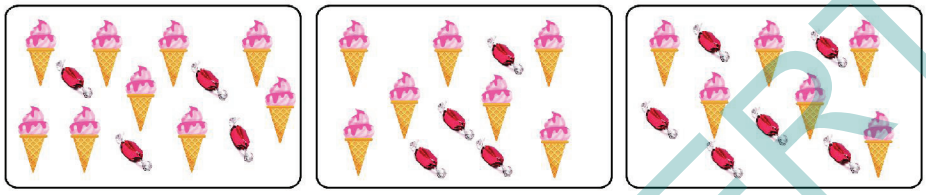
   a) 6 b) 7 c) 8

3. Choose the correct number to fill the box. ( )



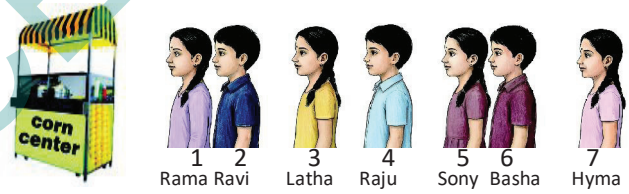
   a) 3 b) 4 c) 5

4. Select the box with 9 icecreams. ( )



   a b c

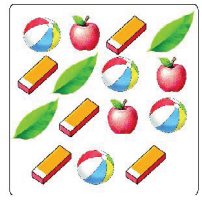
5. Who is standing on number 6? ( )



   a) Sony b) Basha c) Hyma

6. i) How many erasers are there in the picture? _____

   ii) How many balls are there in the picture? _____



Mapping of Domains with Concepts - Examples

S.No	Domain	Concepts
1.	Physical development	Recite the rhyme with action, Tracing numbers, Arranging objects from 1-9
2.	Cognitive development	Counting objects, Sorting things
3.	Socio - Emotional and Ethical development	Recite the rhyme with action
4.	Language and literacy development	Recite the rhyme with action, Giving answers to the questions
5.	Aesthetic and cultural development	Recite the rhyme with action, Colouring

Hari learnt 0 to 9 numbers. The domain he achieved is _____.

AP SCERT

UNIT 2

Addition

F5H8G8

Learner will be able to

- Say the number which is one more than the given number (after number). (CG-8)
- Do additions whose sum is less than or equal to 9.(CG-8)
- Do additions vertically and horizontally.(CG-8)
- Identify and use the symbol of addition ' + '.(CG-8)

LET US SING

Addition, Addition
I am an Addition
Adding, Adding
Group of things – together -together
Combining, joining - all are same - all are same
The symbol "+" represents me.
Addition, Addition……..



Observe the above picture. Answer the following questions.

1. How many ducks are there in the pond ?
2. How many ducks are outside the pond ?
3. How many ducks are there in total?

3 and 2 make 5

1. How many red flowers are there ?
2. How many white flowers are there ?
3. How many flowers are there in total ?

4 and 3 make 7

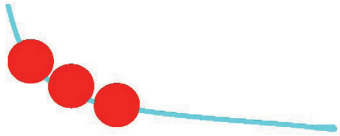
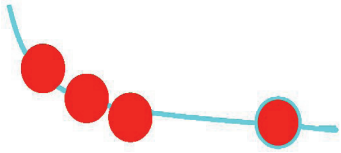
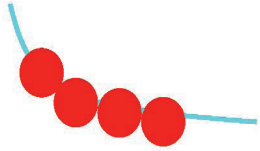
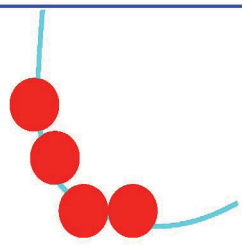
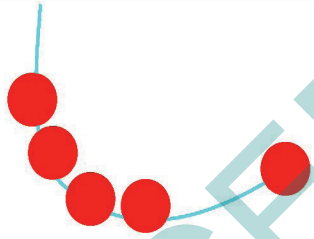
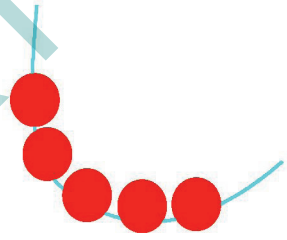
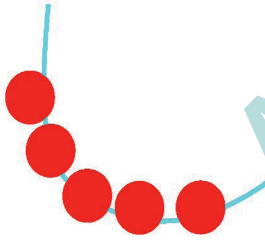
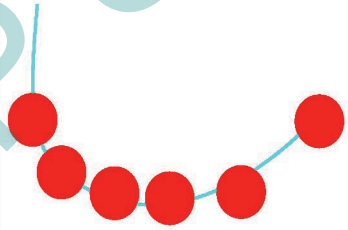
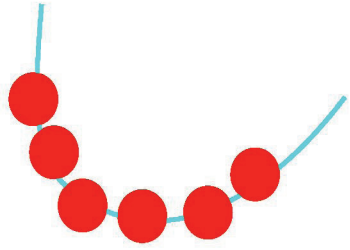
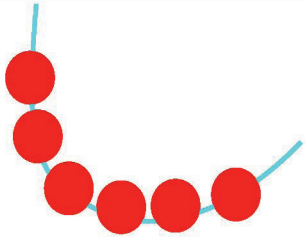
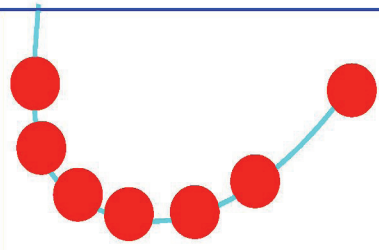
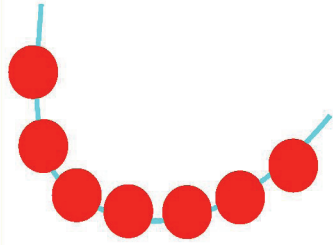
1. How many girls are playing in the park?
2. How many boys are playing in the park ?
3. How many children are playing in the park in total?

2 and 4 make 6

Combining the things in different groups together is called 'addition.'

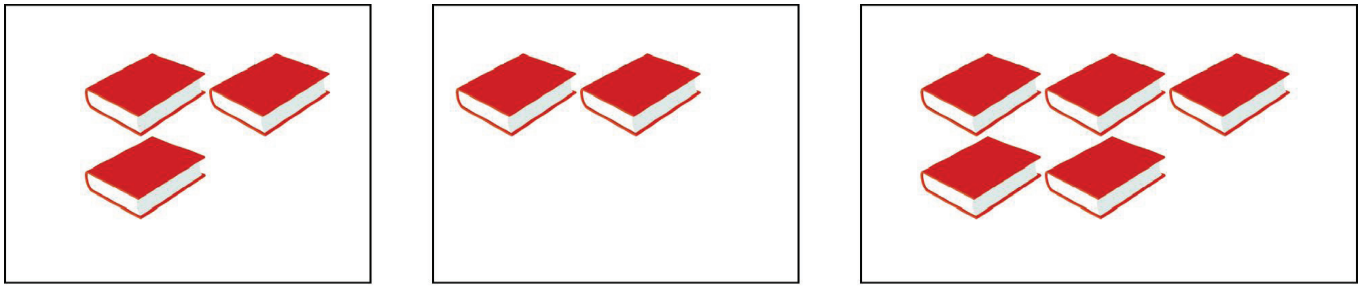
APSCERT

Look at the first picture in each row. Add one more bead and say the total. Write it in the third box.

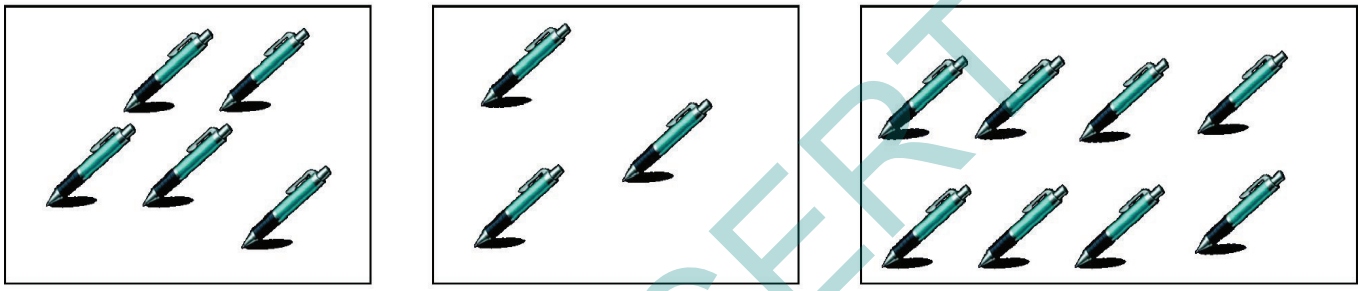
 3	 1 added to 3	
 4	 1 added to 4	
 5	 1 added to 5	
 6	 1 added to 6	

APSCERT

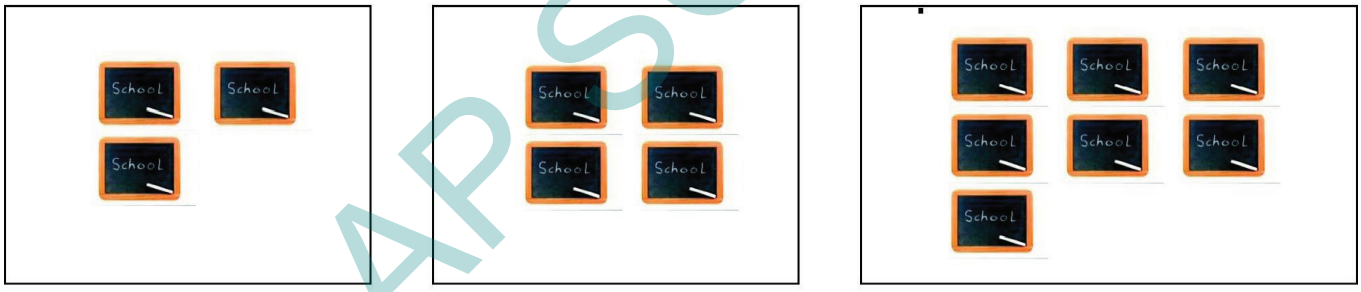
Count and write. One is done for you.



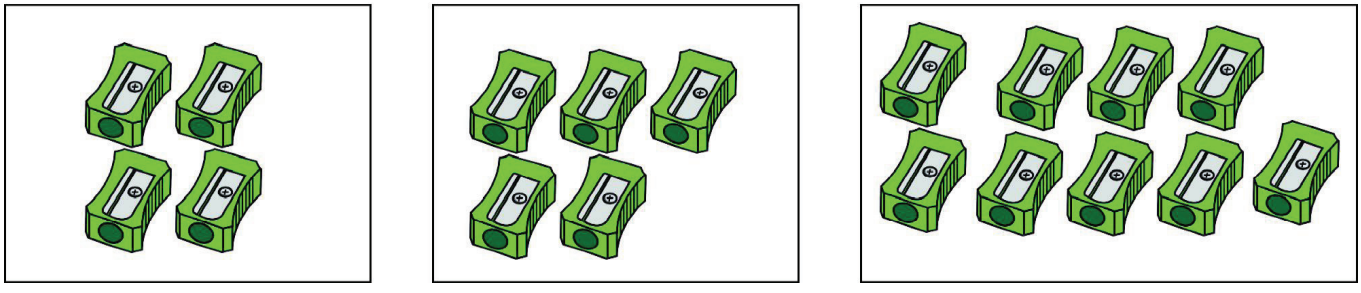
3 + 2 = 5



__ + __ = __



__ + __ = __

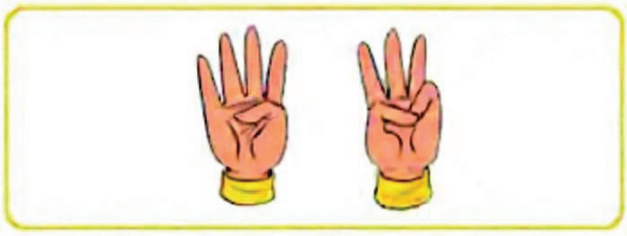


__ + __ = __

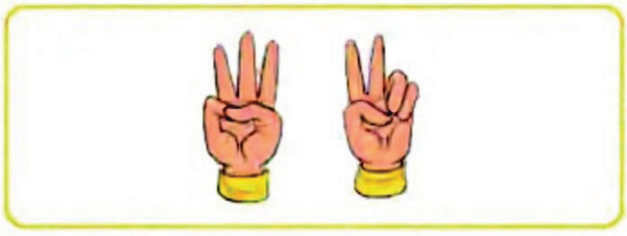
4 and 5 make 9. It is written as 4 + 5 = 9.

APSCERT

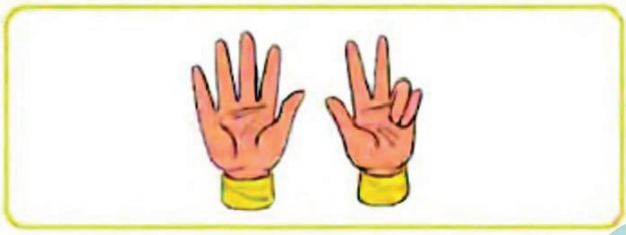
Count and write the total number of fingers.



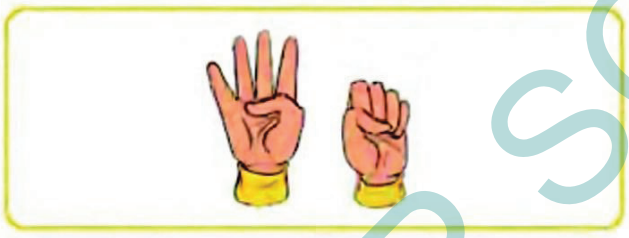
4 + 3 =



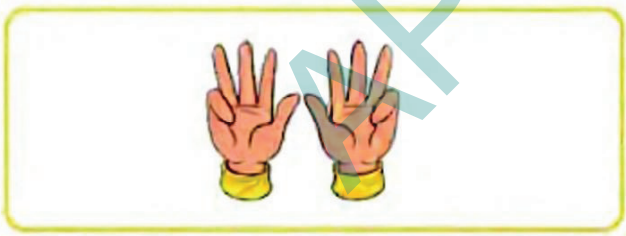
3 + 2 =



5 + 3 =



4 + 0 =



4 + 4 =

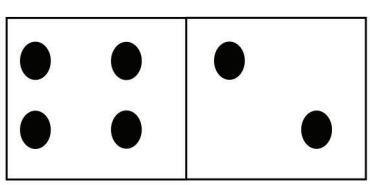
AP SCERT

Play Time :

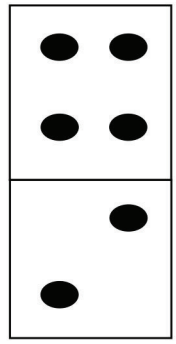
- Make two groups
- Give number cards having 0 - 9 numbers for both groups.
- One group will show two numbers.
- The other group has to add both the numbers and show the correct number.

2	+	3	=	5
Group -A				Group -B

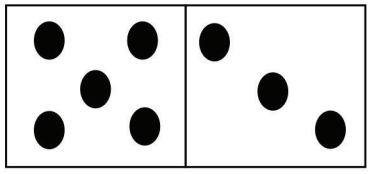
Add the dots and write the sum. One is done for you.



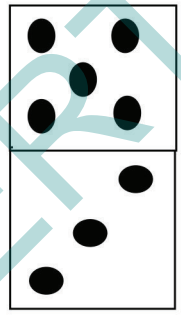
4 + 2 = 6



4
+ 2
6

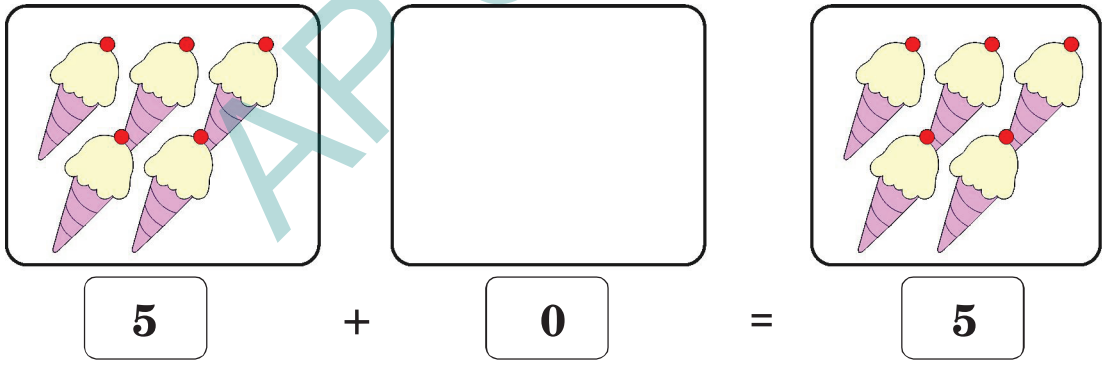


5 + 3 = ____

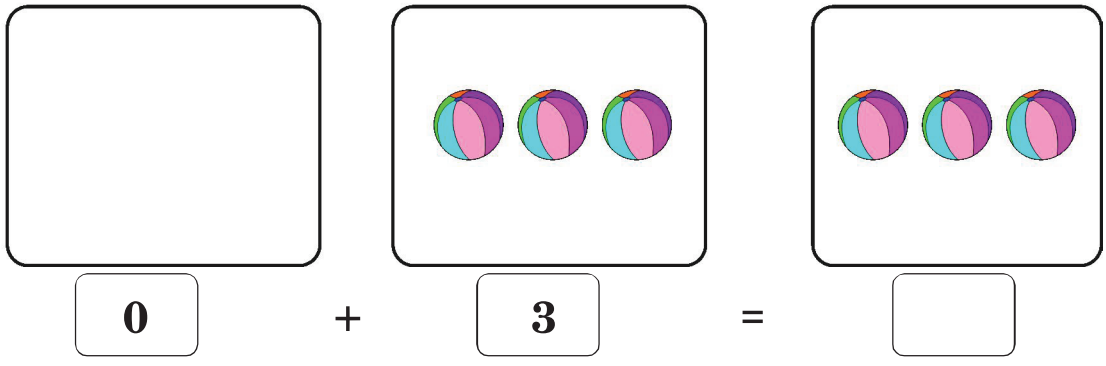


5
+ 3
____
____

Look at the pictures in each box. Count them and write the number in the given box. One is done for you.



5 + 0 = 5

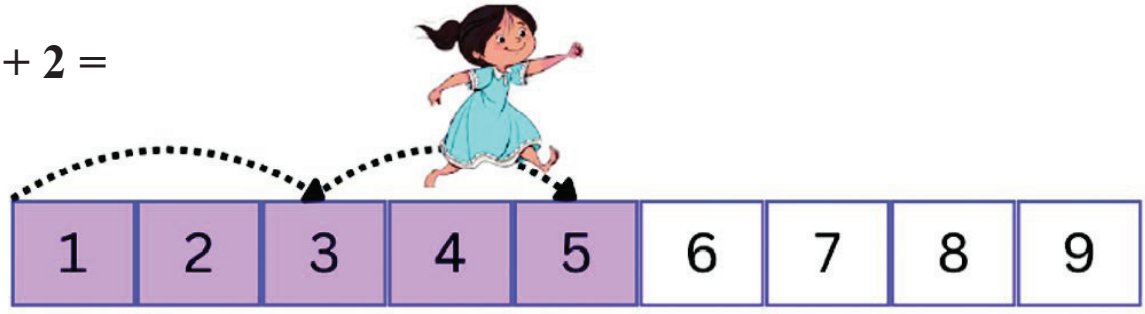


0 + 3 = ____

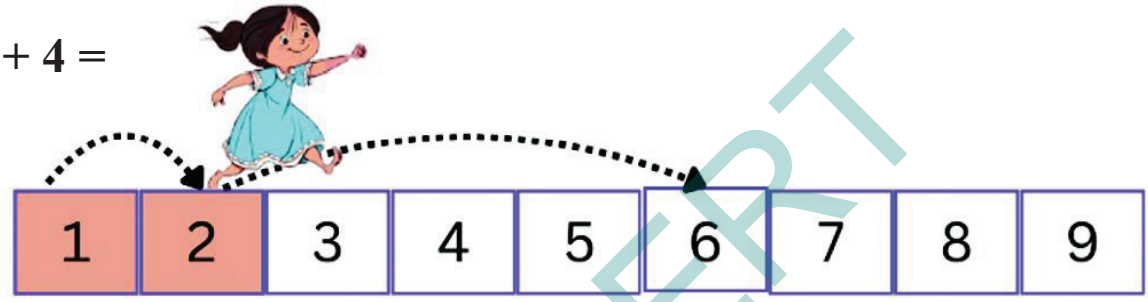
AP SCERT

Hop and find the sum.

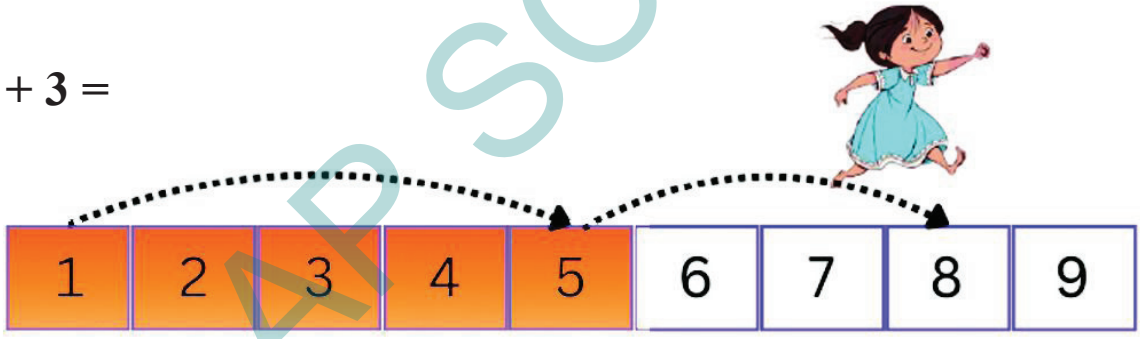
$3 + 2 =$



$2 + 4 =$



$5 + 3 =$



AP SCERT

Do the addition in your own way (by using lines / fingers / dots / objects).

A. $5 + 2 =$ ____

B. $4 + 5 =$ ____

C. $6 + 3 =$ ____

D. $4 + 1 =$ ____

E. $3 + 5 =$ ____

F. $6 + 2 =$ ____

Do the Addition

Ramu and Radha are adding numbers in two different ways. Help them to find the addition.



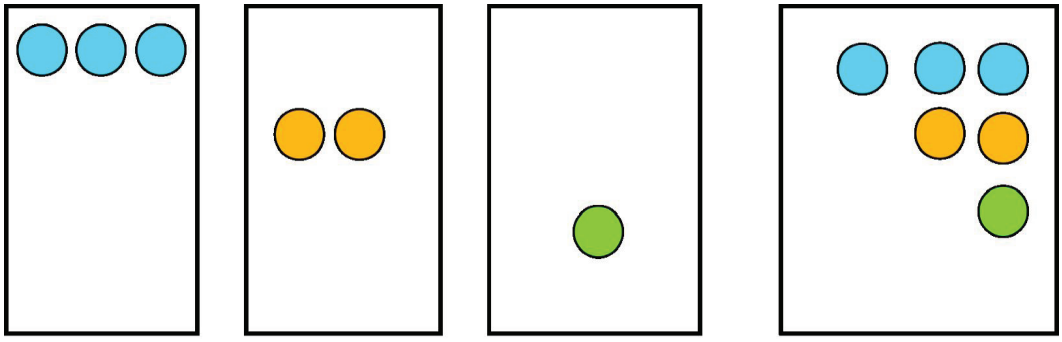
2 +4 =	2 + 4 =
5 +2 =	5 + 2 =
2 +2 =	2 + 2 =
6 +2 =	6 + 2 =
4 +4 =	4 + 4 =

Discuss : What do you observed?

AP SCERT

Count and write. One is done for you.

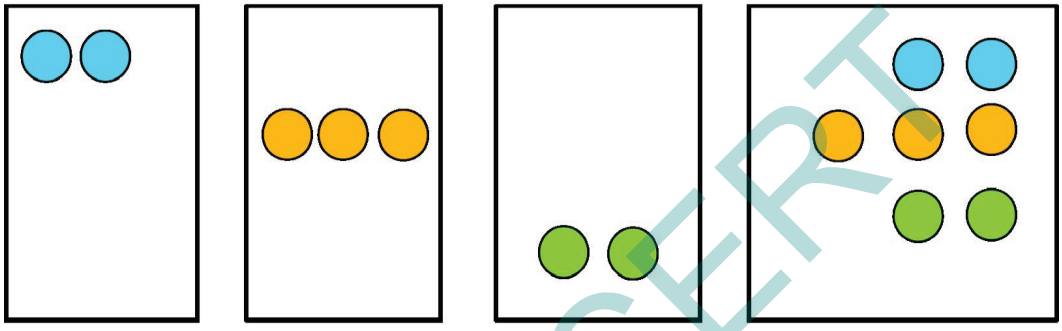
a)



3 + 2 + 1 = 6

$$\begin{array}{r} 3 \\ 2 \\ +\ 1 \\ \hline 6 \\ \hline \end{array}$$

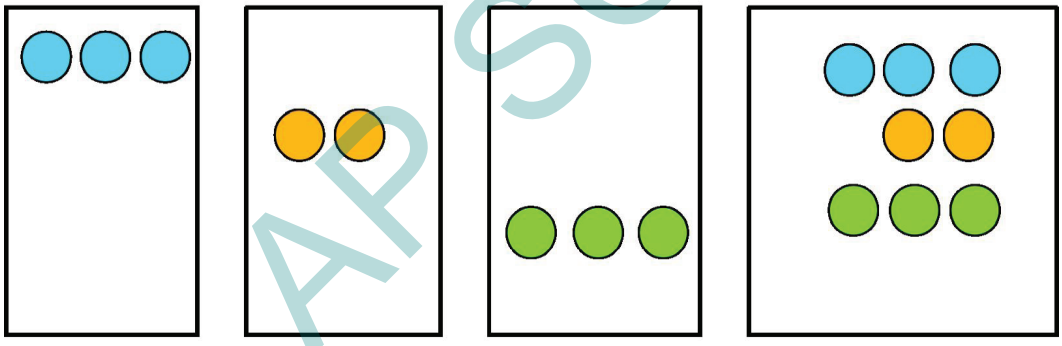
b)



2 + 3 + 2 = ☐

$$\begin{array}{r} 2 \\ 3 \\ +\ 2 \\ \hline \\ \hline \end{array}$$

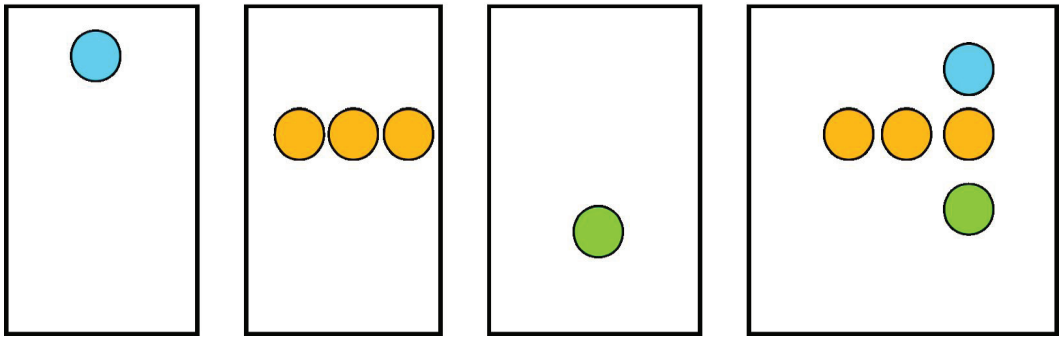
c)



☐ + ☐ + ☐ = ☐

$$\begin{array}{r} 3 \\ 2 \\ +\ 3 \\ \hline \\ \hline \end{array}$$

d)

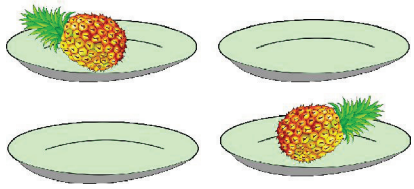


☐ + ☐ + ☐ = ☐

$$\begin{array}{r} 1 \\ 3 \\ +\ 1 \\ \hline \\ \hline \end{array}$$

APSCERT

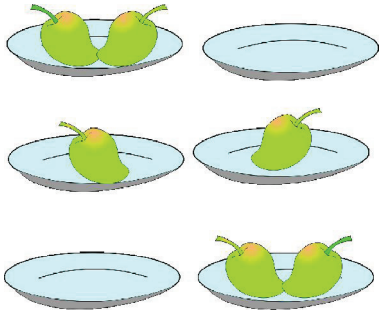
Addition facts for "1"



1 + 0 = 1

0 + 1 = 1

Addition facts for "2"



2 + 0 = 2

1 + 1 = 2

0 + 2 = 2

Do these

Add and match the following.

2 + 4	9	2 + 5
5 + 3	7	3 + 3
4 + 5	8	6 + 3
7 + 0	6	7 + 1

Let us practice one word problem on Addition.

Joy has 5 rupees. Sumi gave her 4 rupees. How much money do joy has now?

Sol : The money with joy = ₹ ☐

The money given by Sumi = (+) ₹ ☐

The money now Joy has = ₹ ☐

Project work :

- Take ten cards having numbers 0 to 9.
- Arrange the cards in such a manner that their sum must be 9.
- There are many ways to do it. In how many ways can you do it?

☐ + ☐ = 9

☐ + ☐ + ☐ = 9

☐ + ☐ = 9

AP SCERT

EXERCISE

1) Add the two numbers.

a) 3 + 2 =..... b) 6 + 3 = ... c) 5 + 1= ..... d) 2 + 4 = ...

e) 4 + 0= ..... f) 4 + 1 =..... g) 7 + 2= ..... h) 3 + 4= .....

2) Do the additions.

IIII □
III □

□


□
□
□

5	3	4	6	5	3
+ 1	+ 5	+ 3	+ 2	+ 4	+ 3
------	------	------	------	------	------
------	------	------	------	------	------

3) Match the following

1)

a) ●●●● + ●●		5
b) ●●● + ●●		6
c) ●●●●●● + ●		8
d) ●●●●● + ●●●		7

2)

a) 6 + 3	7
b) 4 + 4	8
c) 5 + 2	9
d) 2 + 4	6

4) Which pair of numbers adds, equal to 9? ( )

a) 6,2 b) 5,3 c) 7,2

5) Find the odd one? ( )

a) 2+6 b) 6+3 c) 4+4

AP SCERT

Improve your learning

1. Which of the following additions equals 7? ( )

   a) 5+3 b) 0+7 c) 9+4

2. 2 + 6 = _____

3. Which of these has the SAME value as 4 + 3? ( )

   a) 2+2+3 b) 4+2+2 c) 2+2+2

4. Mother served 3 idlis' to Janu and 3 idlis' to Rama. How many idlis' they ate in total?

   ans) _____

5. Which addition statement is related to the given picture? ( )



   a) 4 + 3 = 7 b) 3 + 4 = 6 c) 3 + 3 = 6

6. Which of the following picture is equals to 5 + 4 = 9? ( )



   a b c

7. Madhavi had some eggs in her bowl. 3 eggs are broken. She had 4 eggs left. How many eggs did Madhavi have at first?

Mapping of Domains with Concepts - Examples

S.No	Domain	Concepts
1.	Physical development	Recite the rhyme with action, Addition by beads and objects
2.	Cognitive development	Counting with fingers, Card Game
3.	Socio - Emotional and Ethical development	Recite the rhyme with action, Project work
4.	Language and literacy development	Recite the rhyme with action, Giving answers to the questions
5.	Aesthetic and cultural development	Recite the rhyme with action, Project work

Rama learnt addition by regrouping. The domain she achieved is _____

AP SCERT

Unit 3

Subtraction

I5F3S5

Learner will be able to

- Say the number which that is one less than a given number (before number).(CG-8)
- Do subtraction up to 9 (not regrouping). (CG-8)
- Do subtractions vertically and horizontally. (CG-8)
- Identify and use the symbol of Subtraction'-'. (CG-8)

Let us sing :

Minus is the sign
Subtraction is mine
Digits are nine
Learn to shine
Use digits nine
Draw a line
Before nine to dine
You will be fine



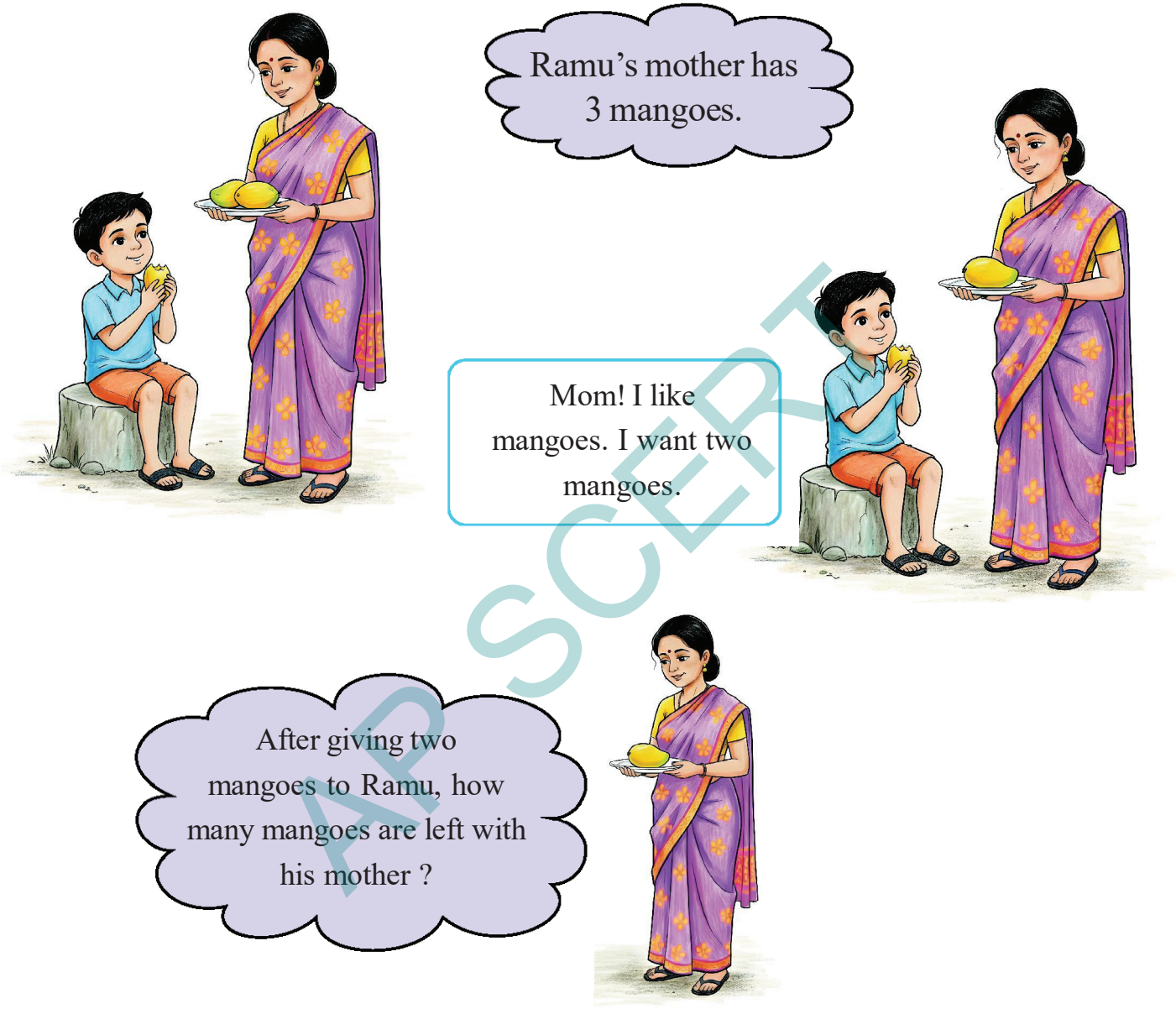
1. What do you observe in the above picture ?
2. How many birds are there ?
3. How many birds are flying away ?
4. How many birds are left on the tree ?
5. How many carrots are there?
6. How many carrots are being eaten by the rabbits?
7. How many carrots are not eaten by the rabbits ?

Note : Frame similar questions to develop a clear idea among the students on the concept of subtraction.

APSCERT

How many ?

Look at the pictures.



APSCERT

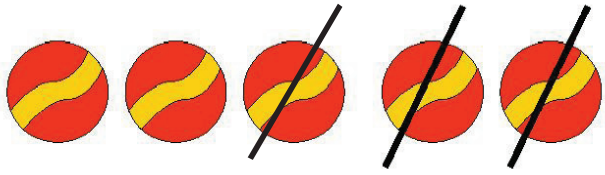
The result is 1. It is written as 3 – 2 = 1.

This symbol in between 3 and 2 is used to denote the process of subtraction.

It is denoted as " – " and read as 'MINUS'.

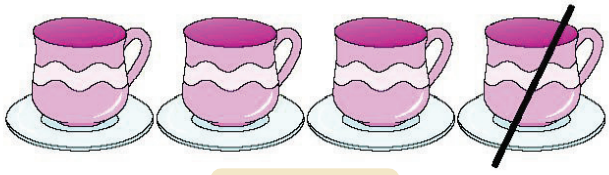
We read 3 - 2 as **"three minus two."**

How many are left ? One is done for you.



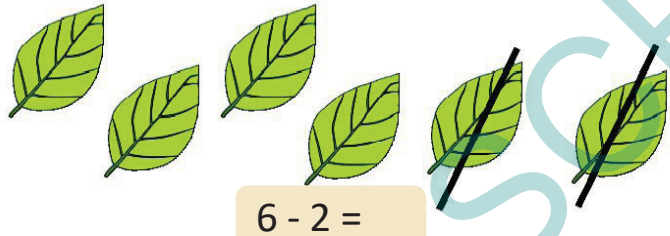
5 - 3 = 2

5
− 3
2



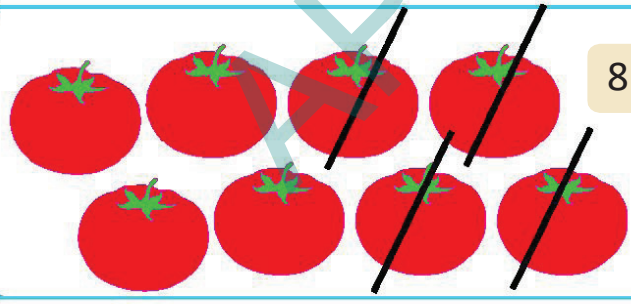
4 - 1 =

4
− 1



6 - 2 =

6
− 2



8 - 4 =

8
− 4



7 - 3 =

7
− 3

APSCERT

Vertical Subtraction

The bigger number has to write on the top. The smaller number has to write below the bigger number with a minus sign (-) before it.

Eg :

$$\begin{array}{r} 5 \\ -\ 3 \\ \hline 2 \\ \hline \end{array}$$



Observe the pictures.

Jeevan bought 2 ice creams.

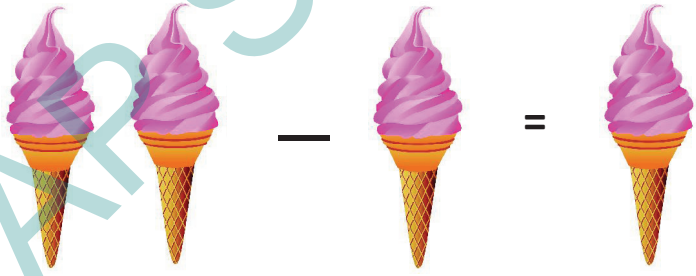
He ate 1 ice cream.

How many ice creams are left with Jeevan ?





How many are remaining?



2 - 1 = 1

Do these

4	5	6	8	7	6
− 2	− 1	− 5	− 3	− 4	− 1

APSCERT

Take away

Observe the picture.



APSCERT

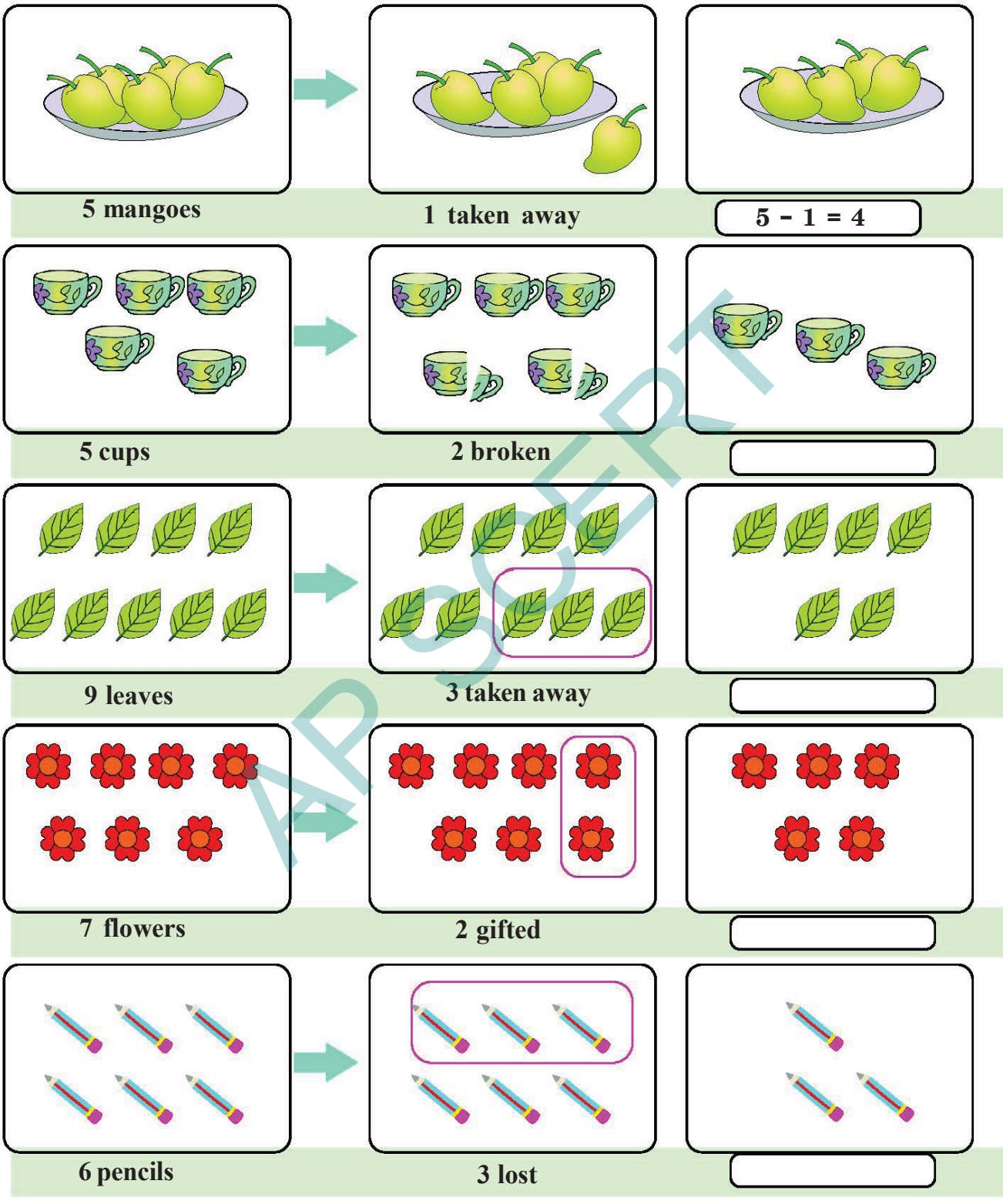
So, if we take away 1 from 4 we get 3.

We denote it as : 4 – 1 = 3

We read it as 4 minus 1 is equal to 3.

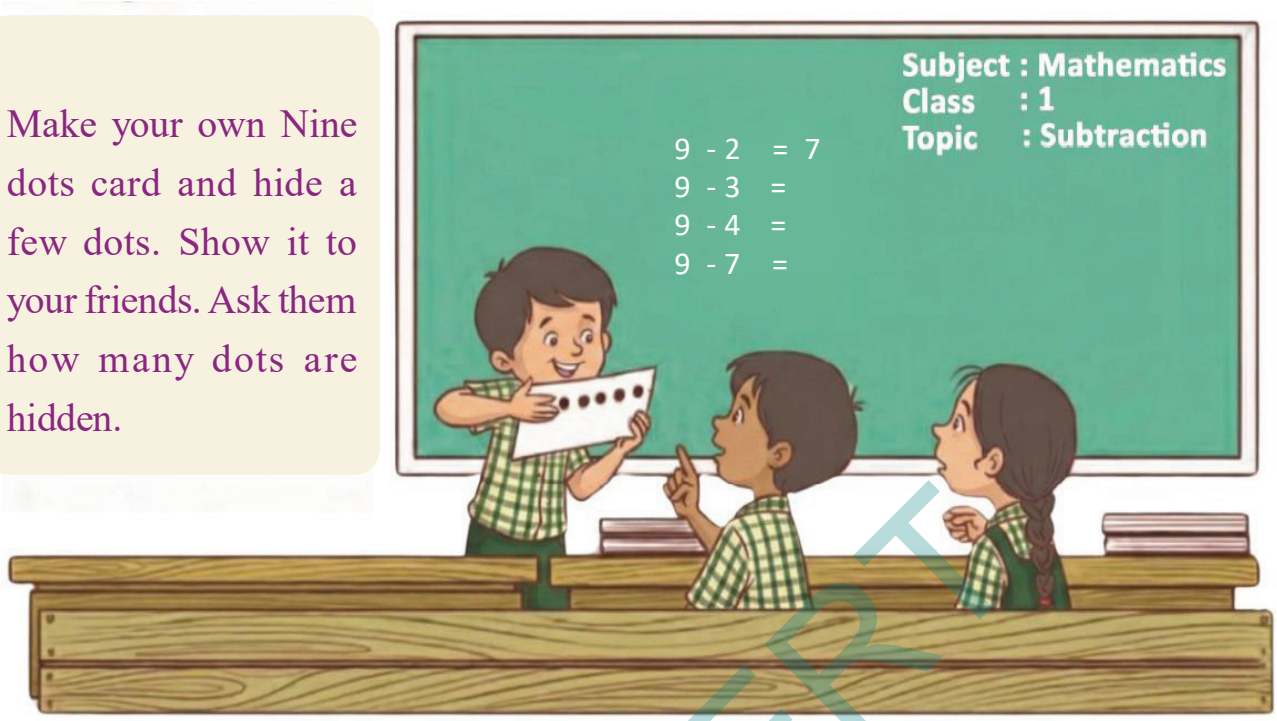
It means when we subtract 1 from 4, we get 3.

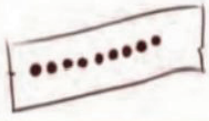
Subtraction (taking away)



APSCERT

Make your own Nine dots card and hide a few dots. Show it to your friends. Ask them how many dots are hidden.



Total Dots 9	Visible Dots	Hidden Dots
	9	0
	7	
	5	
	4	

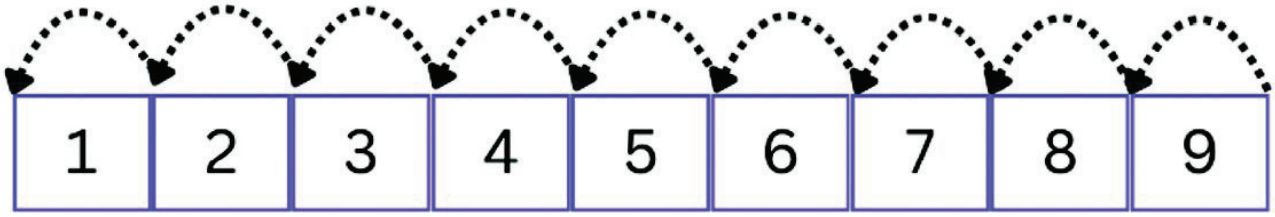
Project work :

Prepare one project on subtraction as mentioned here. One clue is given to you.

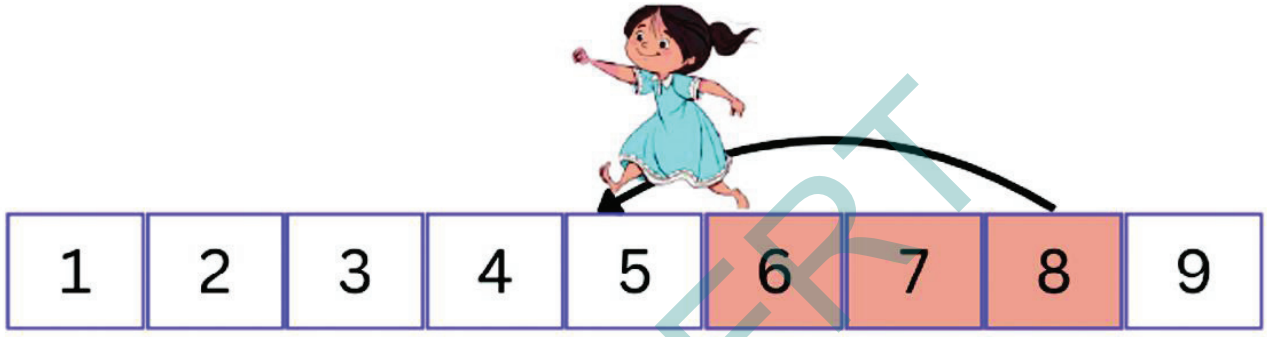


AP SCERT

Hop backwards on the number strip.



A. Jump 3 steps back from 8.



8 - 3 = 5

B. Jump 4 steps back grom 9.



9 - 4 = ____

AP SCERT

Do the subtractions.

A. 6 - 2 = ____

B. 7 - 3 = ____

C. 8 - 5 = ____

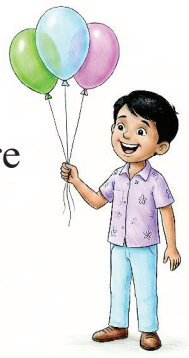
D. 5 - 3 = ____

E. 4 - 1 = ____

F. 6 - 2 = ____

Observe the picture.

How many balloons are there with the boy?



How many balloons are now left with the boy?



So , 3 – 3 = None. Thus , 3 – 3 = 0

Do these

1) 2 – 2 = ☐ 2) 4– 4 = ☐ 3) 7 – 7 = ☐

4) 5 – 5 = ☐ 5) 8 – 8 = ☐ 6) 9 – 9 = ☐

Word problems

1. Girish has 3 pencils. How many more pencils does he need to make a bundle of 8 pencils?

   Number of pencils to be bundled = 8

   Number of pencils Girish has = (-) 3

   Number of more pencils needed = 5

   Answer : Girish needs 5 more pencils.

   Let us practice one word problem on Subtraction.

2. Latha has 9 balloons. She gave 4 balloons to Rishi. Now how many balloons Latha has?

   The balloons with Latha = ☐

   No.of balloons given to Rishi = (-) ☐

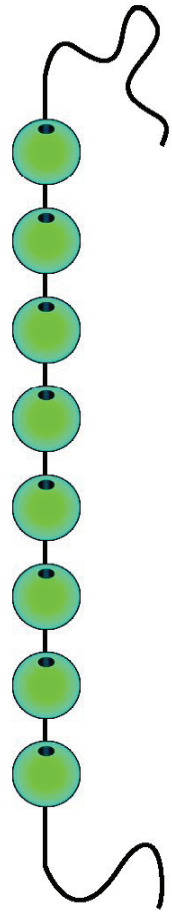
   Number of balloons now Latha has = ☐

   Latha has ____ Balloons now.

AP SCERT

EXERCISE

Circle the correct option.



1. Take away 2 from 7, we get _____

   a) 7 b) 5 c) 4 d) 6

2. Take away 4 from 6, we get _____

   a) 2 b) 3 c) 5 d) 4

3. 5 – 0 = _____

   a) 0 b) 2 c) 3 d) 5

4. 9 – 5 means

   a) take away 5 from 9 b) take away 9 from 5

   c) take away 5 from 5 d) take away 9 from 9

5. 2 – ___ = 2

   a) 2 b) 0 c) 1 d) 3

6.  How can we write this?

   a) 5 – 3 b) 4 – 2 c) 5 – 1 d) 4 – 3

7. 8 – 1

   a) 6 b) 5 c) 8 d) 7

8. **Match the following.**

a) 4 – 1	2
b) 7 – 5	8
c) 8 – 0	0
d) 3 – 3	3

AP SCERT

Improve your learning

1.  This Picture represents ( )

a) 5-3 = 2 b) 5-2 = 3 c) 3-2 = 5

2. 6 - 4 = 2 Choose the correct Picture representation. ( )

a) 

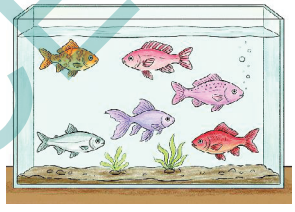
b) 

c) 

3. Ramya picked 7 balls from the following balls. How many balls will remain?_____



4. "There are a total of 9 fish in Tank A and Tank B combined. If there are 6 fish in Tank B, how many fish are in Tank A?" _____

A)  B) 

5. _____ apples are more than oranges.



6. 6 birds are sitting on a tree. 2 birds flew away. How many birds are remaining on the tree?

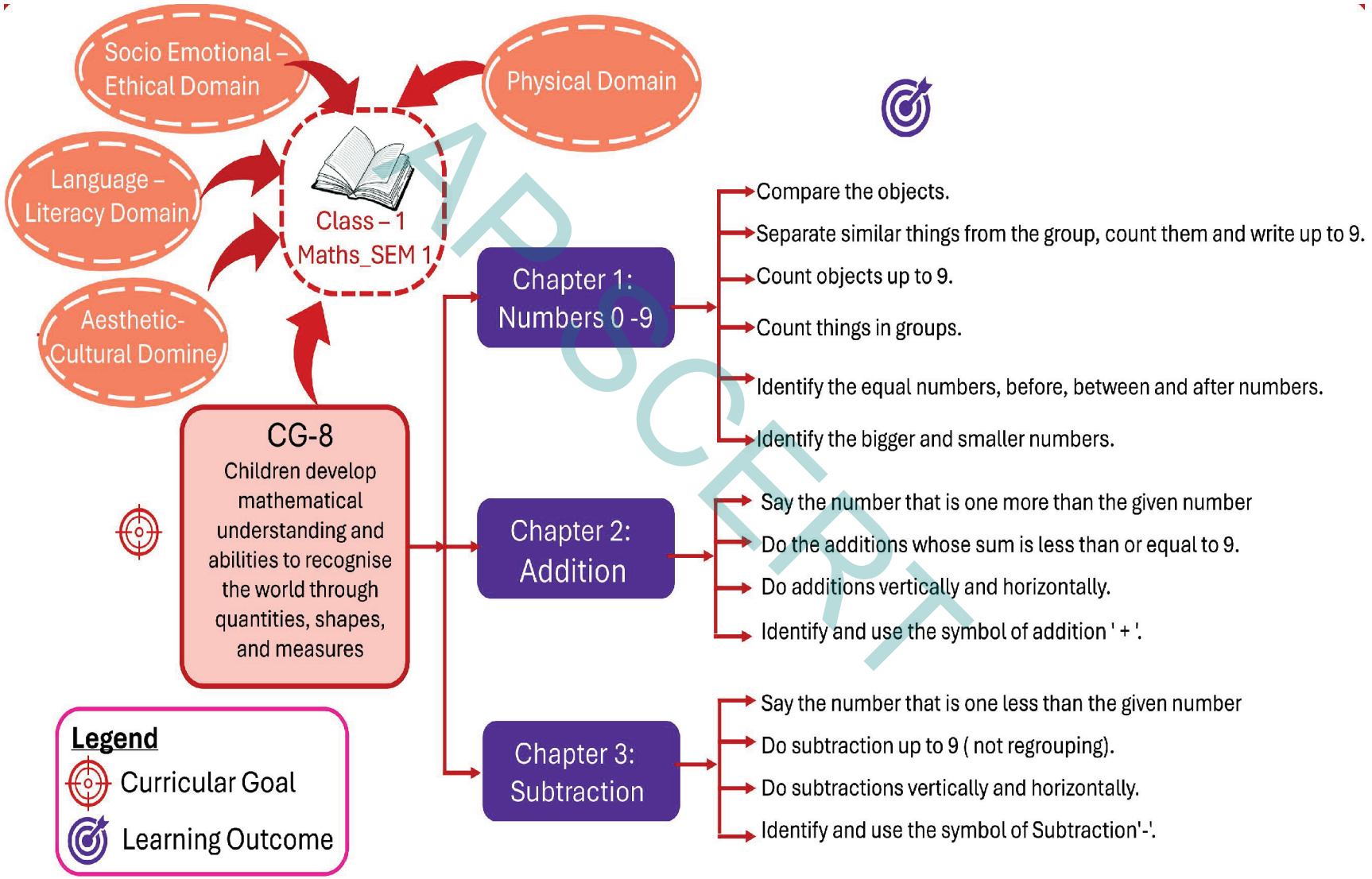
Mapping of Domains with Concepts - Examples

S.No	Domain	Concepts
1.	Physical development	Recite the rhyme with action, Project work, Jumping
2.	Cognitive development	Project work
3.	Socio - Emotional and Ethical development	Recite the rhyme with action, Doing 'How many' activity
4.	Language and literacy development	Recite the rhyme with action, Giving answers to the questions
5.	Aesthetic and cultural development	Recite the rhyme with action, Dots game

Shama learnt subtraction horizantally and vertically. The domain she achieved is _____

AP SCERT

MIND MAP



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SCERT

FUNDAMENTAL DUTIES

Fundamental duties: It shall be the duty of every citizen of India-

(a) to abide by the Constitution and respect its ideals and institutions, the National Flag and the National Anthem;

(b) to cherish and follow the noble ideals which inspired our national struggle for freedom;

(c) to uphold and protect the sovereignty, unity and integrity of India;

(d) to defend the country and render national service when called upon to do so;

(e) to promote harmony and the spirit of common brotherhood amongst all the people of India transcending religious, linguistic and regional or sectional diversities; to renounce practices derogatory to the dignity of women;

(f) to value and preserve the rich heritage of our composite culture;

(g) to protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures;

(h) to develop the scientific temper, humanism and the spirit of inquiry and reform;

(i) to safeguard public property and to abjure violence.

(j) to strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievement;

(k) who is a parent or guardian, to provide opportunities for education to his child or, as the case may be ward between the age of six and fourteen years.

- Constitution of India,
Part IV A (Article 51 A)

APSCERT

Right of Children to Free and Compulsory Education (RTE) Act, 2009

The RTE Act provides for the right of children to free and Compulsory Education to every child in the age group of 6 – 14 years which came into force from 1st April 2010 in Andhra Pradesh.

Important provisions of RTE Act

- Ensure availability of schools within the reach of the children.
- Improve School infrastructure facilities.
- Enroll children in the class appropriate to his / her age.
- Children have a right to receive special training in order to be at par with other children.
- Providing appropriate facilities for the education of children with special needs on par with other children.
- No child shall be liable to pay any kind of fee or charges or expenses which may prevent him or her from pursuing and completing the elementary education. No test for admitting the children in schools.
- No removal of name and repetition of the child in the same class.
- No child admitted in a school shall be held back in any class or expel from school till the completion of elementary education.
- No child shall be subjected to physical punishment or mental harassment.
- Admission shall not be denied or delayed on the ground that the transfer and other certificates have not been provided on time.
- Eligible candidates alone shall be appointed as teachers.
- The teaching learning process and evaluation procedures shall promote achievement of appropriate competencies.
- No board examinations shall be conducted to the children till the completion of elementary education.
- Children can continue in the schools even after 14 years until completion of elementary education.
- No discrimination and related practices towards children belonging to backward and marginalized communities.
- The curriculum and evaluation procedures must be in conformity with the values enshrined in the constitution and make the child free of fear and anxiety and help the child to express views freely.