GOVERNMENT OF TAMIL NADU

STANDARD ONE

TERM - I

VOLUME 2

MATHEMATICS
ENVIRONMENTAL SCIENCE

Untouchability is Inhuman and a Crime

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MATHEMATICS

MATHEMATICS

CONTENT

E–BOOK

EVALUATION

Unit 1   Geometry

1.1 Comparisons

Travel through

Keywords

Top – Bottom	Above – Below
Inside - Outside	Near – Far
On – Under	Big – Small

Sit sit sit
sit **inside** the class;

Jump jump jump
jump **on** the floor;

Crawl crawl crawl
crawl **under** the table;

Go go go
go **far** from the table;

Come come come
come **near** the board;

Play play play
play **outside** the class.

Teacher's note

Teacher can create a rhyme using other spatial vocabulary such as Top-Bottom, Above-Below and Big-Small.

9N6IW

Top - Bottom

Learn

The blue colour book is at the **top**.
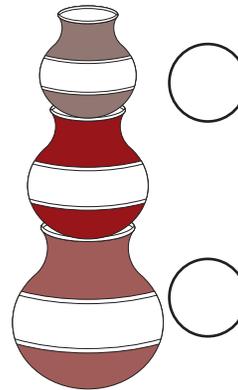The red colour book is at the **bottom**.

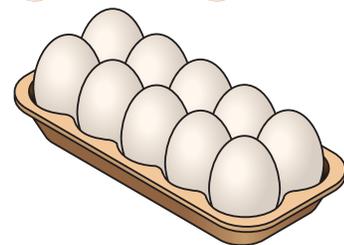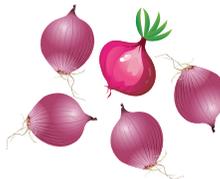## Practice

Tick (✓) the boy at the **bottom** of the slide.

Tick (✓) the pot at the **top**.

Try this

How will you arrange these items inside the bag? Why?

Inside - Outside

Learn

Papaya has its seeds **inside**.

Cashew has its nut **outside**.

Practice

Circle the dog **inside** the kennel.
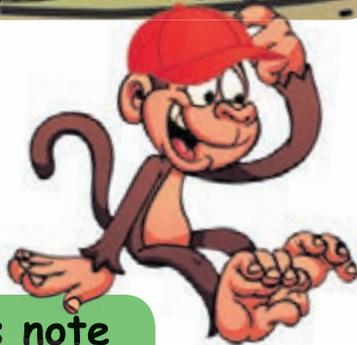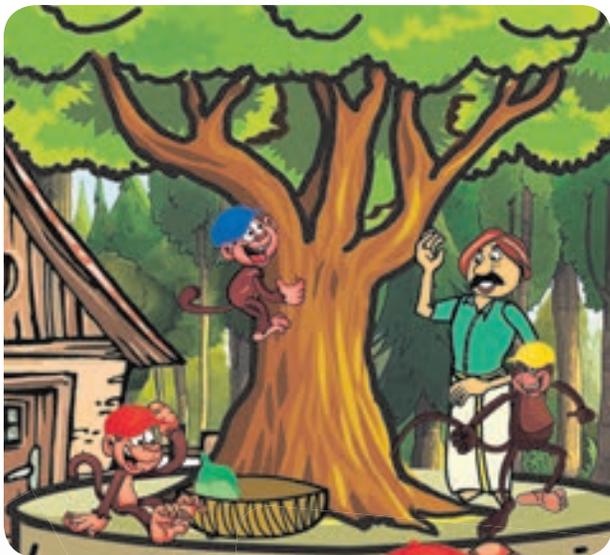
Circle the bird **outside** the nest.

Try this

Where will you play these games? Why?

On - Under

Learn

Teacher's note

Teacher narrates the story of '**Monkeys and the Cap seller**' for enhancing the spatial vocabulary, on - under.

Practice
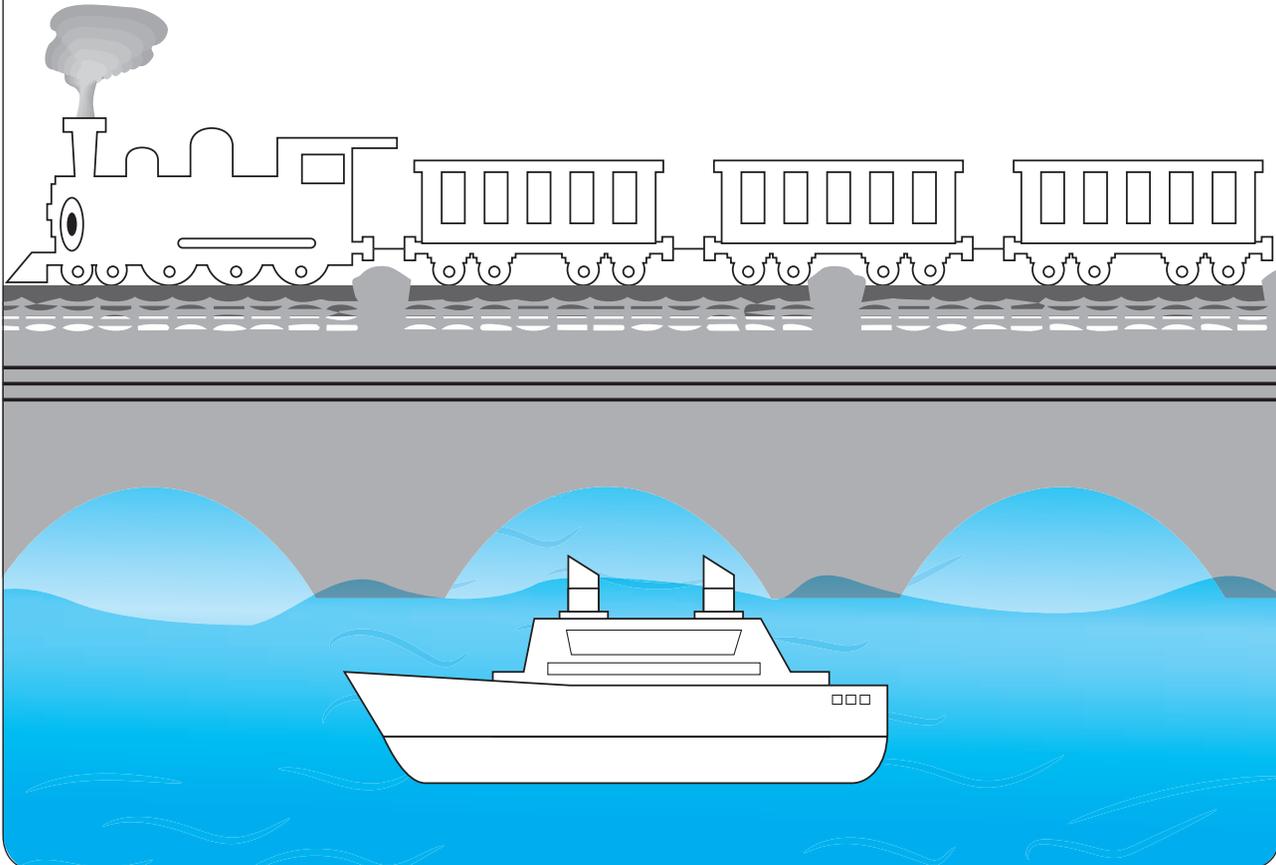
Circle the toy seen **under** the table.

Circle the ball lying **on** the bed.

Pleasure time

Colour the train moving **on** the bridge with **brown** and the ship moving **under** the bridge with **red**.

5
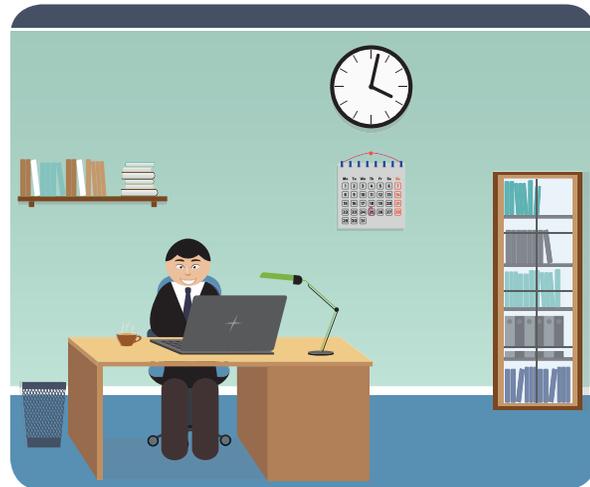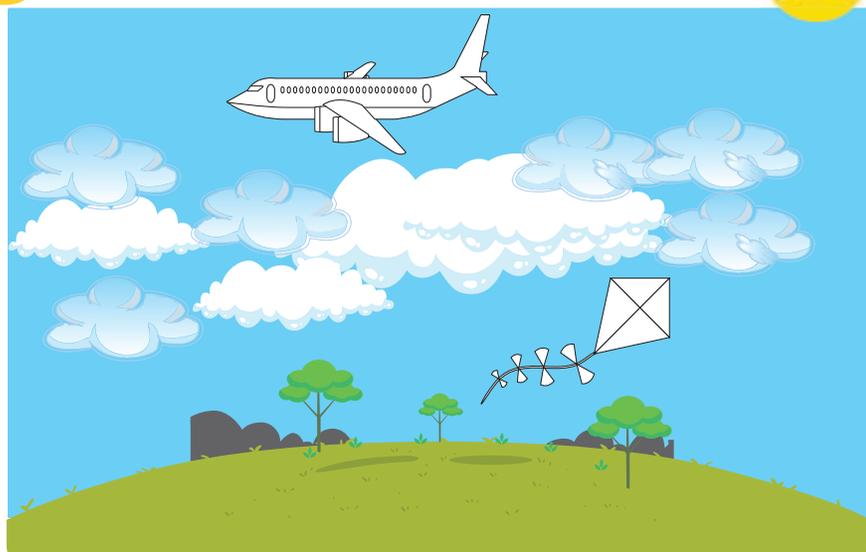
Near - Far

Learn

The bus is **near** the bus stop.

The car is **far** from the bus stop.

Practice

Colour the T-shirt of the boy who is **near** the football.

Circle the cat which is **far** from the milk bowl.

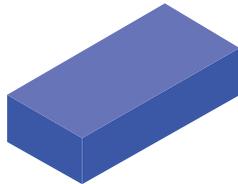### Try this

Who will win the race? Why?

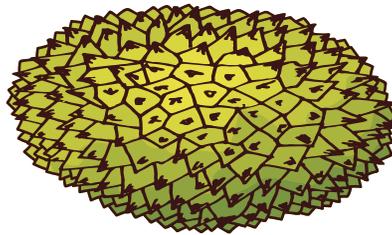## Big – Small

Learn

The shark is **big**. The zebra fish is **small**.
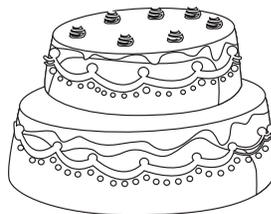
Practice

Tick (✓) the **bigger** one.

○　　　　○

Tick (✓) the **smaller** one.

○　　　　○

Pleasure time

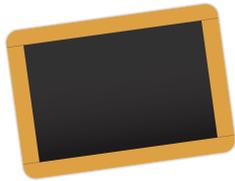Colour the **big** cake with **brown** and the **small** cake with **blue**.

AJN30

8

1.2 Shapes

Travel through

Keywords

Round	Corner
Flat	Edge

Eraser

35SZ9

Teacher can display the objects similar to the things shown above and help the children to identify each object. The teacher can help them say orally the names of the objects that are round and flat by touching the objects.

Learn

The ball is **round**.

The slate is **flat**.
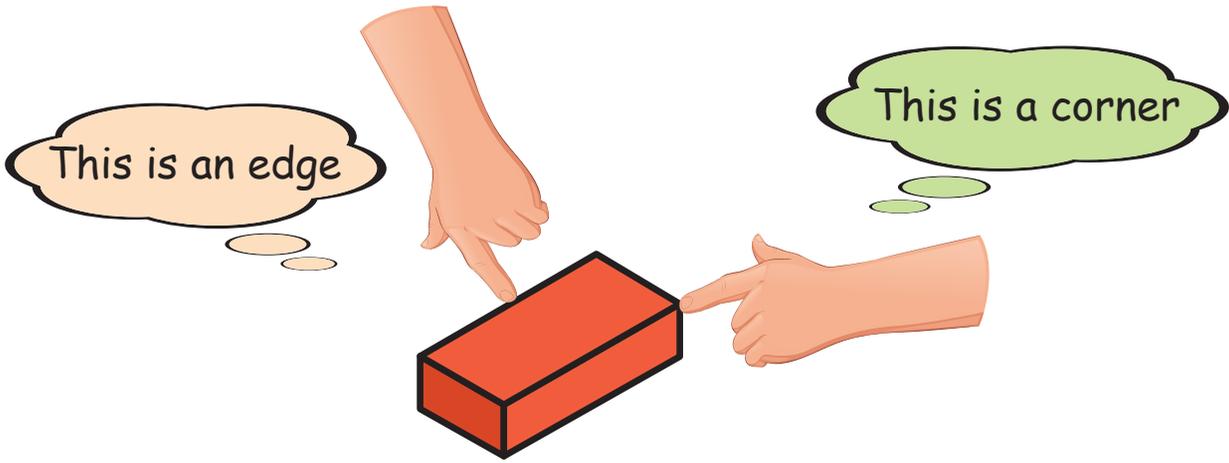
The book is **flat**.

The orange is **round**.

Practice

Tick (✓) the following objects as **round** or **flat**.

Object	Round	Flat

Corner, Edge

Learn

This is an edge

This is a corner

Practice

Colour the corner

Trace the edge

Think like a mathematician

Do round objects have corner?

Are there any objects that are both round and flat?

Unit 2   Numbers

2.1 Numbers from 1 to 9

Keywords

Numbers
Count
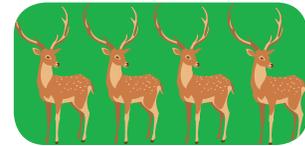More/Less
Order

Travel through

One little kitten is sitting
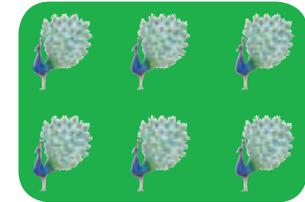in the garden;
Two pretty birds are flying
over there;
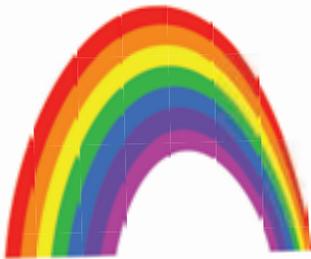Three clever monkeys are
jumping on the tree;
Four dotted deer are making
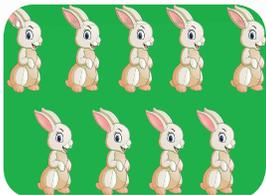them glad;
Five dark clouds are joining
over the sky;
Six pretty peacocks are
dancing side by side;
Seven coloured rainbow is
bowing its head;
Eight legged spider is knitting
its web;
Nine cute rabbits are watching
all these.

Teacher's note

Teacher should make the children to sing after her with
action and to count the numbers from 1 to 9 spontaneously.

11

Matching one to one

Learn

Practice

Observe the above pictures and colour the following.
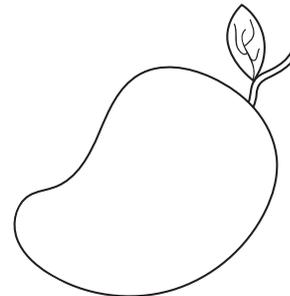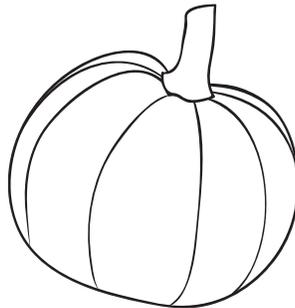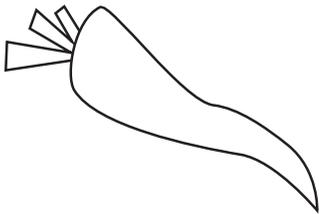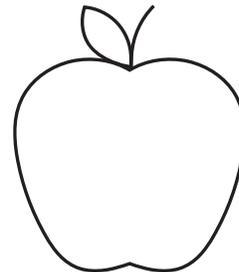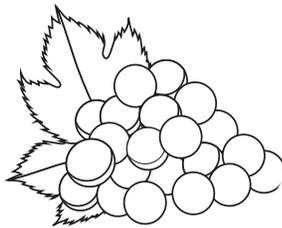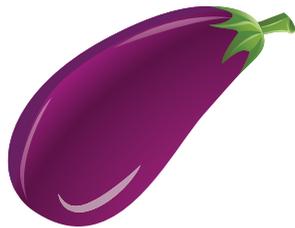
Learn

Connect the objects one to one
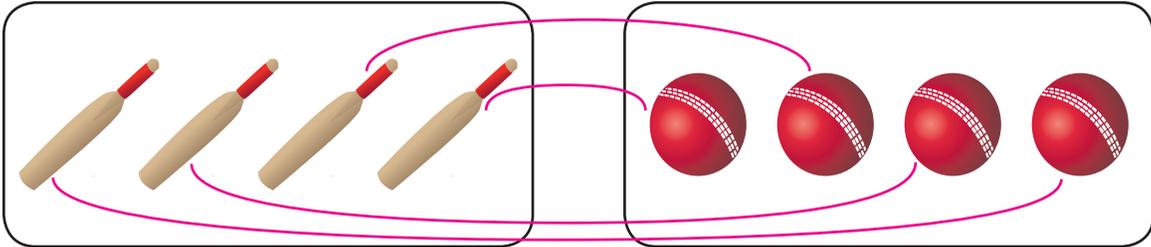
Practice
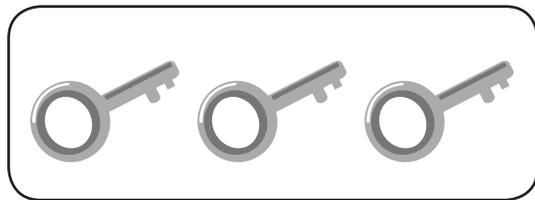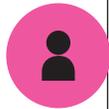
More or Less

Practice

Tick (✔) the box that has **more** watches.
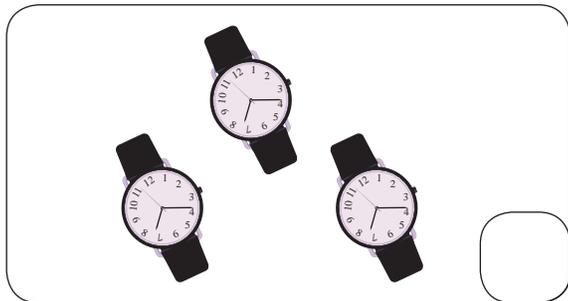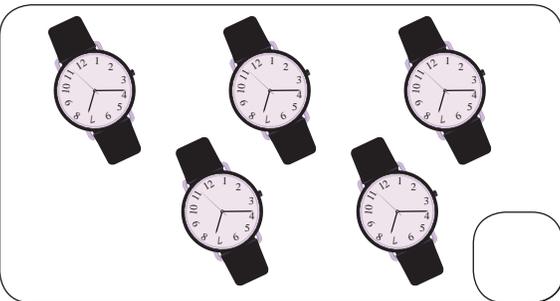
Tick (✔) the box that has **less** smileys.

13
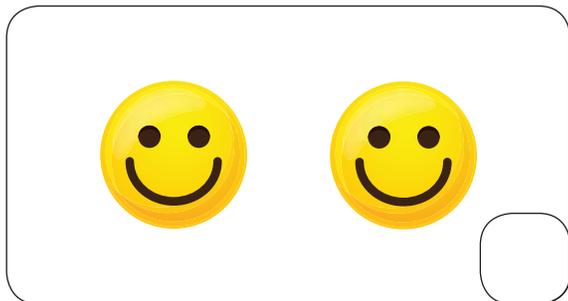
Practice

Connect the parrots one to one and match them.
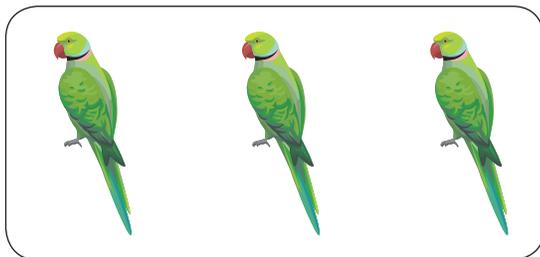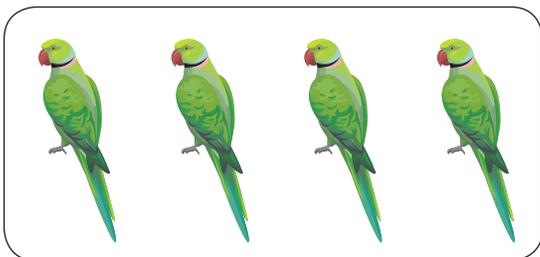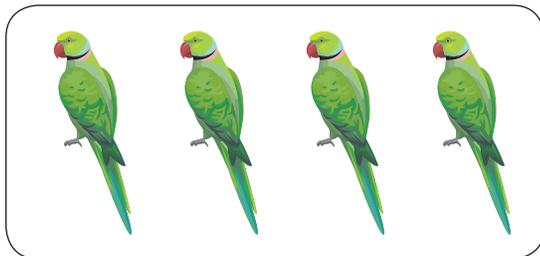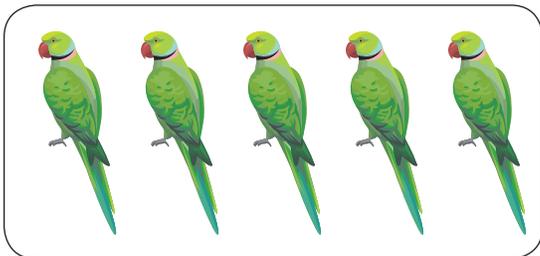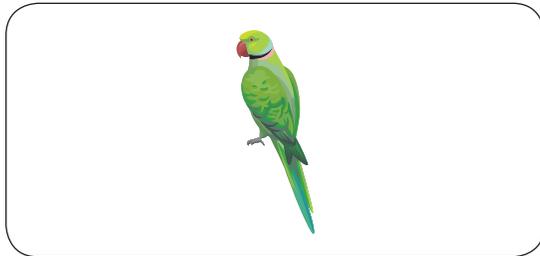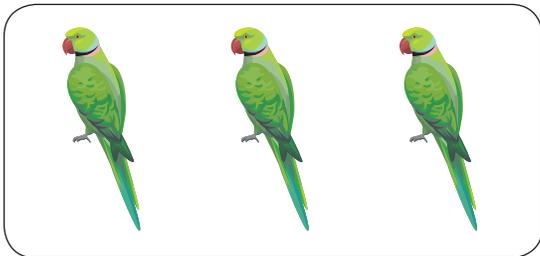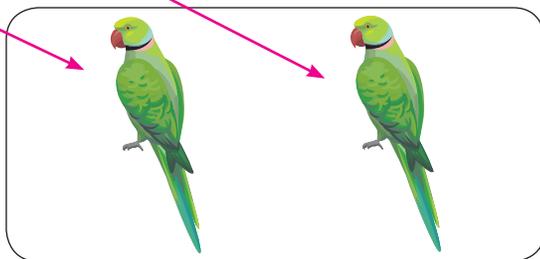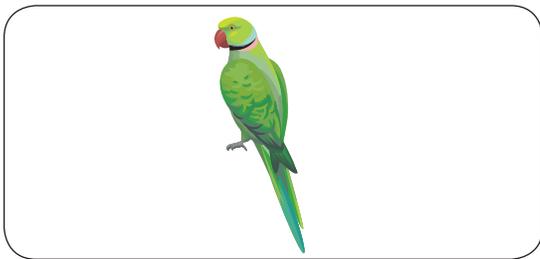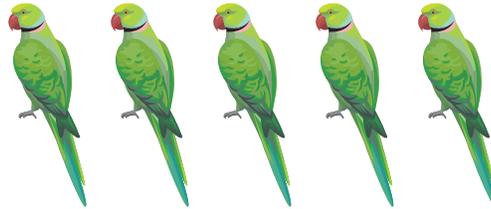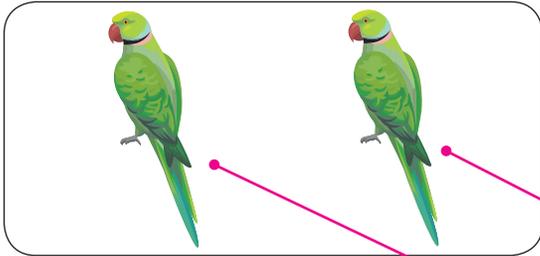
Number 1

Learn

Let us learn numbers from 1 to 9 in different ways.

One bus	One bead	One finger	One

Practice

Count and write

Activity

How many tails do animals have?

15

Number 2

Learn

Two fishes	Two beads	Two fingers	**2**
			Two

Practice

2	2	2	2

Try this

Shade the stars that are numbered 2 and say the pattern in it.

2   1   2   1   2

List out the organs in our body that are 2 in number.

16

Number 3

Learn

			3
Three umbrellas	Three beads	Three fingers	Three

Practice

3	3	3	3

Look at the picture. Count that are three in numbers and circle them.

Know more

A few other names used to denote 3
triple, thrice.

Number 4

Learn

Four flowers	Four beads	Four fingers	Four

Practice

4	4	4	4

Look at the picture. Count the objects that are four in number and circle them.
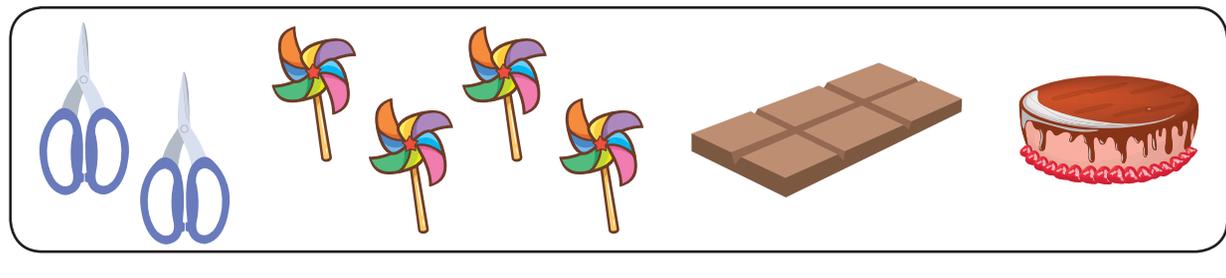
Know more

There are 4 directions north, east, west, south.

Number 5

Learn
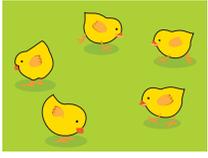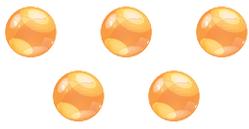
Five chicks	Five beads	Five fingers	Five
			5

Practice

5	5	5	5

Colour any five pots.

How did you choose them?

Know more

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

Practice

Look at the picture. Observe how many times each object is present. Write its count in the blank against the object.
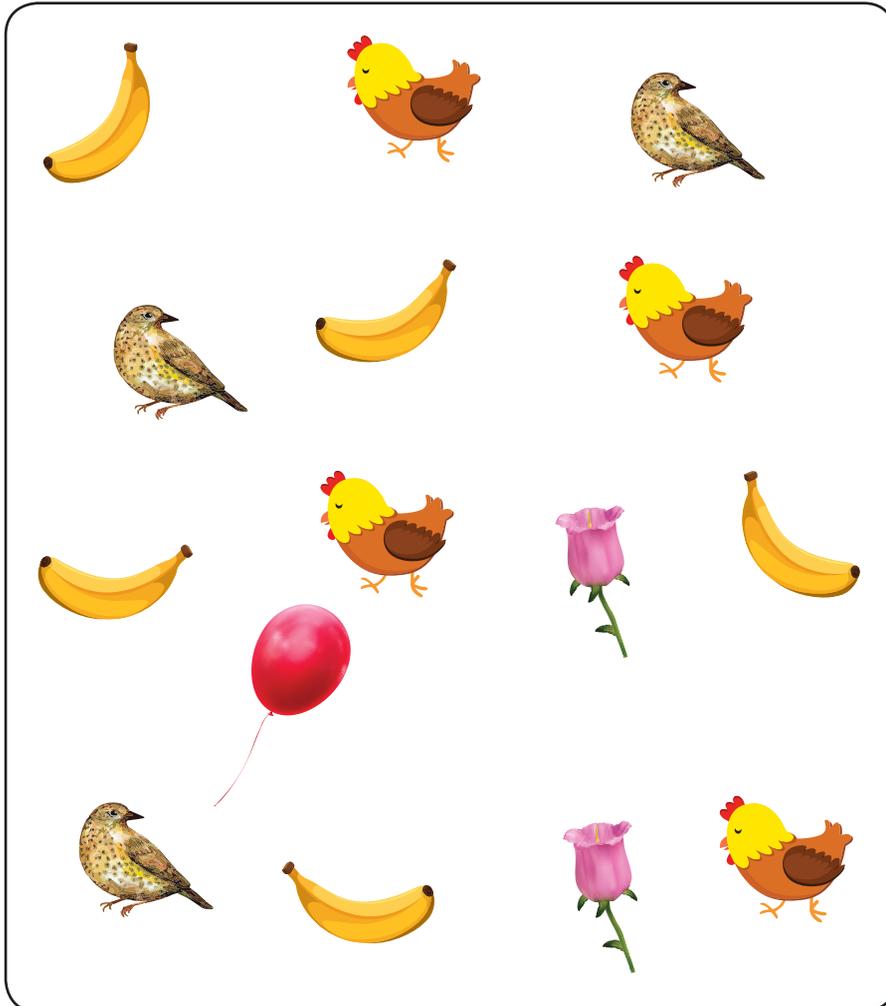
Activity

Keep some beads on the table. Ask the students to pick up the number of beads as instructed by the teacher and assess their counting.

EUPC4

Teacher's note

Use only numbers from 1 to 5.

Number 6

Learn
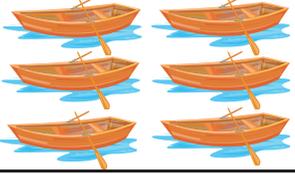
Six boats	Six beads	Six fingers	Six

Practice

6	6	6	6

Activity

Make the star with sticks similar to the picture given.
How many sticks you need?
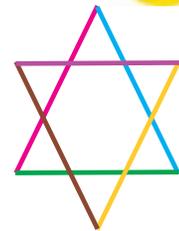
Try this

Underline the six lettered words.

parrot   boat   finger   teacher   pencil
colour   sharpener   bead   eraser   banana

21

Number 7

Learn

Seven birds	Seven beads	Seven fingers	Seven

Practice

٦	٦	٦	٦

Colour any seven trees.

How did you select these ?

Activity

How many colours are there in the rainbow?
Draw your own.

22

Number 8

Learn
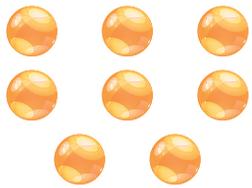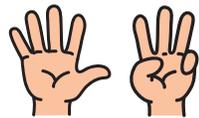
Eight starfishes	Eight beads	Eight fingers	Eight

Practice

8	8	8	8

Circle a group of eight balls. Is there any other way of selection?
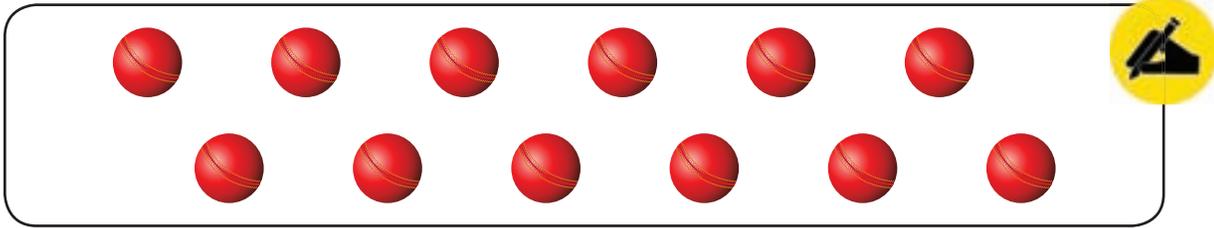
Activity

Shade all the penguins with black colour.
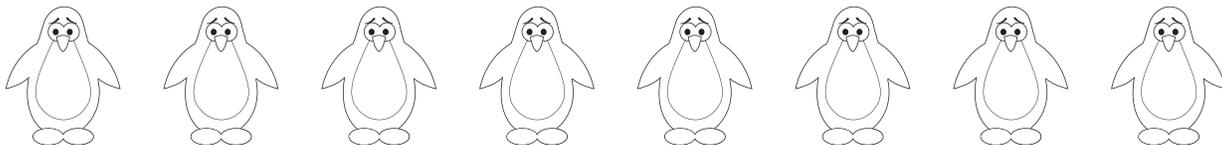
How many penguins did you shade?

23

Number 9

Learn
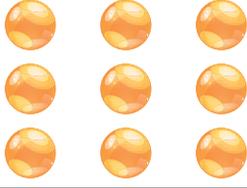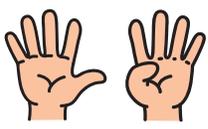
Nine pencils	Nine beads	Nine fingers	Nine

Practice

٩	٩	٩	٩

Colour any nine flowers.
Suggest one more way of colouring.
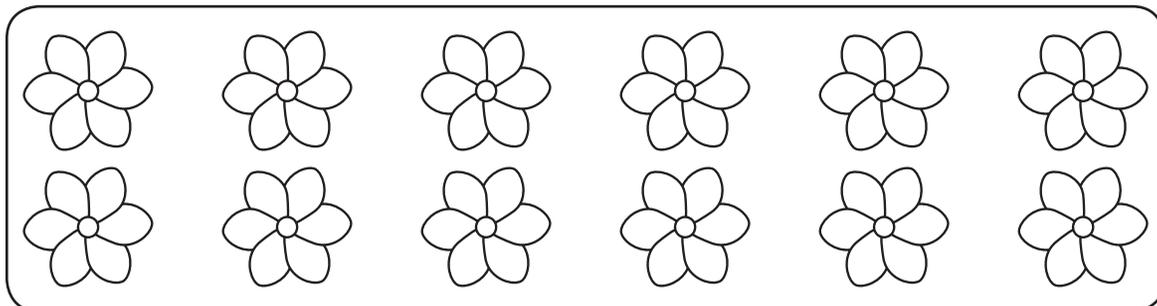
Draw the tail to the kites with number nine.

3   9   5   9   6   9   7

Pleasure time

Count the pictures and circle their correct number.

Pictures			
(7 turtles)	8	(7)	9
(5 ice creams)	5	6	8
(4 roses)	2	3	4
(6 octopuses)	6	7	5
(8 lamps)	5	4	8
(1 crocodile)	2	1	3
(3 seahorses)	2	3	1

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Comparison

Bigger Number - Smaller Number

Practice

Write the Count in ☐ and Tick (✓) the bigger number

5 ✓	3

☐	☐
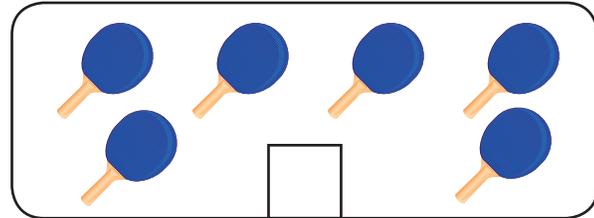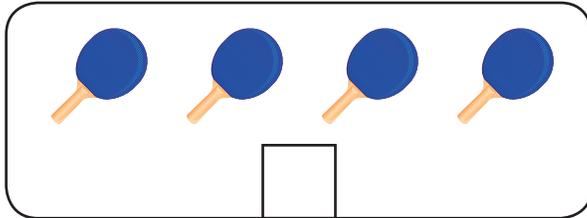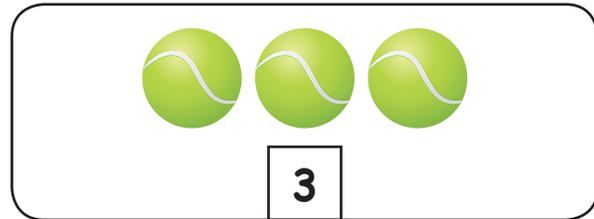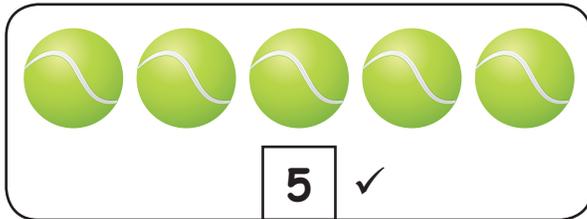
Write the Count in ☐ and Tick (✓) the smaller number

6	4 ✓

☐	☐
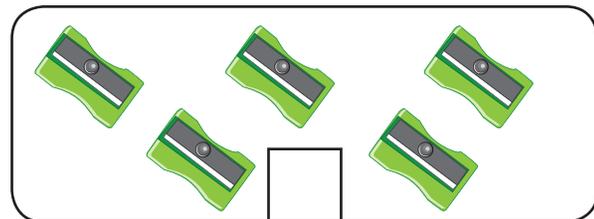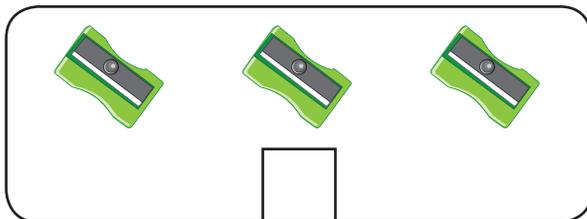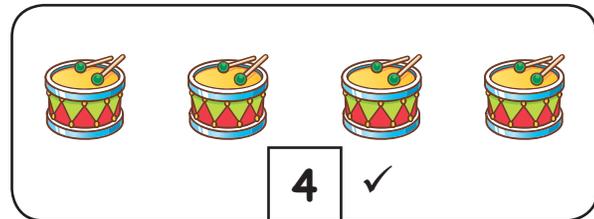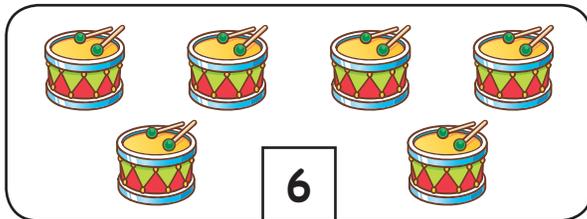
Pleasure time

- Circle the Bigger number:
  a) 7 , ⑧   b) 5 , 6   c) 9 , 4   d) 1 , 3

- Circle the Smaller number:
  a) ① , 5   b) 6 , 4   c) 8 , 3   d) 7 , 9

Forward - Backward

Learn

Forward

1 2 3 4 5 6 7 8 9

Backward

1 2 3 4 5 6 7 8 9
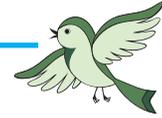
Try this

Fill in the missing numbers in the given trains.

| 1 | | | 4 | | | | 8 | |

| 8 | | | | | | | 1 |
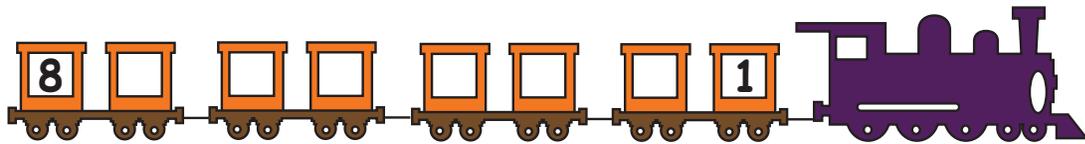
How are the numbers arranged in the two trains from the engine?

Practice

After

5 ⃝ 6 △

1 ⃝ △

7 ⃝ △

⃝ △

Before

6 ⃝ 7 △

⃝ 3 △

⃝ 9 △

⃝ △

Between

5 ⃝ 6 ▢ 7 △

1 ⃝ ▢ 3 △

7 ⃝ ▢ 9 △

⃝ ▢ △
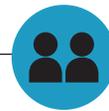
Ordinal numbers

Travel through

Look at the Fruit Babies on the stage

1st 2nd 3rd 4th 5th 6th 7th 8th 9th

Oral Questions:

1. Name the fruit-baby standing in first position.

2. 🍉 is standing in the _____ position.

3. Name the fruit-baby standing in the 7th position.

4. 🍊 is standing in the _____ position.

5. Which fruit-baby do you like the most? Why?

Practice

3rd: ⭐ ⭐ ⭐ ⭐ ⭐ ⭐ ⭐ ⭐

8th: ⏰ ⏰ ⏰ ⏰ ⏰ ⏰ ⏰ ⏰

6th: 🦋 🦋 🦋 🦋 🦋 🦋 🦋 🦋

7th: 🔍 🔍 🔍 🔍 🔍 🔍 🔍 🔍

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Pleasure time

1. Join the dots in order and colour the picture.

6

5

4

3   7

2   8

1
1   9

2

3

4   5   6   7

8

9
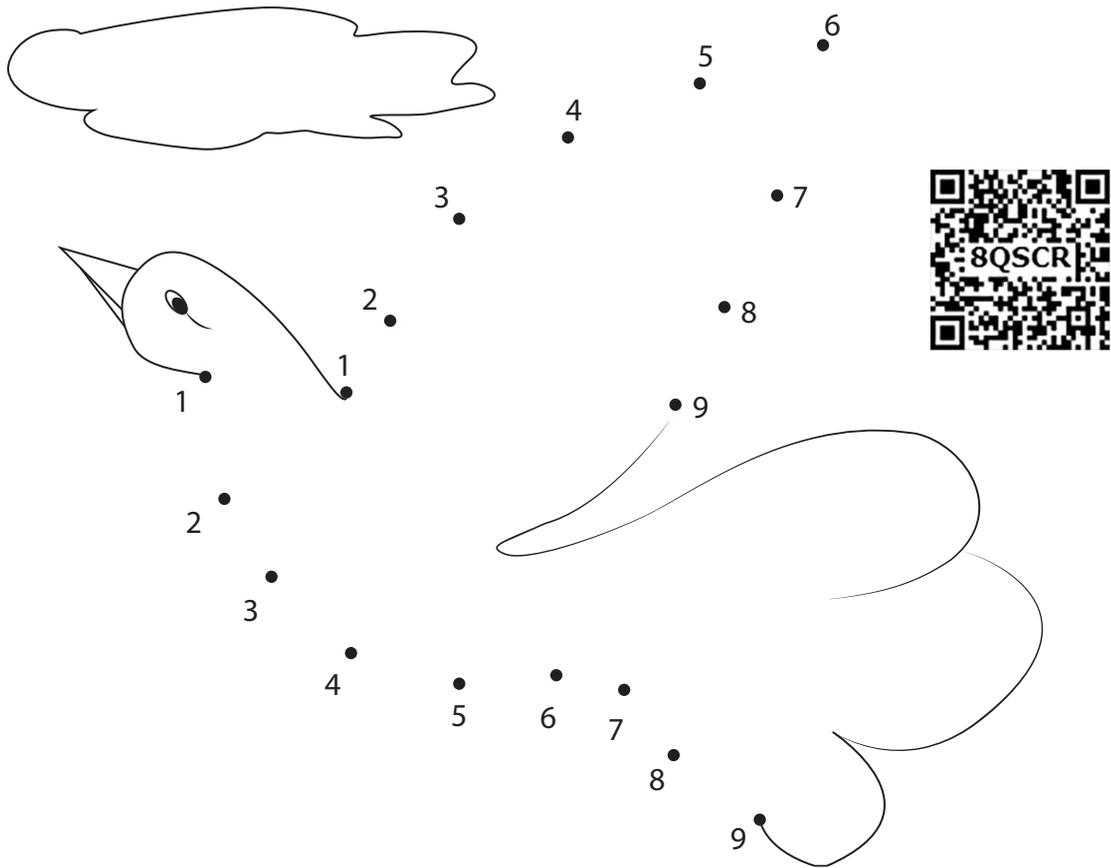
2. Form the picture like ![caterpillar] using bindhis.
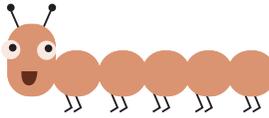
4 bindhis

3 bindhis

5 bindhis

9 bindhis

7 bindhis

29

3. Frame the numbers 1 to 9 by using match sticks.

The number 2 can be framed as [figure]. Try other numbers.

4. Colour the boxes with nine different colours.

Postion	1st	2nd	3rd	4th	5th	6th	7th	8th	9th
Colours									

Colour the boxes with the specified position.

9th [ ]   2nd [ ]   8th [ ]   1st [ ]   4th [ ]

Slide and Ladder

Game

Objective: 1. To be familiar with numbers from 1 to 6.

2. To inculcate moral values.

Materials required: A dice, different coloured buttons.

Method:

1. Students can play alone or in a group of two or more.

2. Each player should throw the dice and move their button in the game chart from their starting point.

3. Throwing the dice should be done in rotation.

4. Whenever they reach the bottom of the ladder, they should climb up and when they reach the head of the slide, they should come down to the bottom of the slide.

5. The player who reaches the end will be the winner.

30

End

Start

2.2 Addition

Keywords

Add

Total

Altogether

More

Travel through

Teacher's note

Teacher can extend the story up to number 9.

Combine together

Learn

Addition means combining or putting things together.

+ is the sign for addition.

	and		makes	
⚽	and	⚽	makes	⚽ ⚽
⚽ ⚽	+	⚽	=	⚽ ⚽ ⚽

Practice

Count and Draw together

③	+	①	=	④
④	◯	①	=	◯
◯	◯	◯	=	◯

Practice

Add and write

$$5 + 2 = 7$$

$$\bigcirc + \bigcirc = \bigcirc$$

$$\bigcirc + \bigcirc = \bigcirc$$

$$\bigcirc + \bigcirc = \bigcirc$$

$$\bigcirc + \bigcirc = \bigcirc$$

34

Practice

Write addition facts
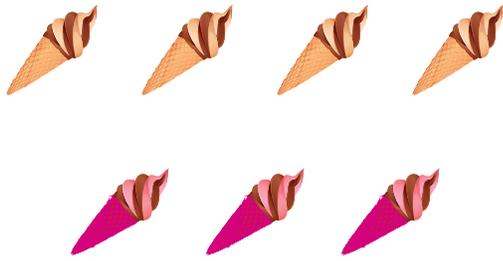
$4 + 3 = 7$

$3 + 4 = 7$
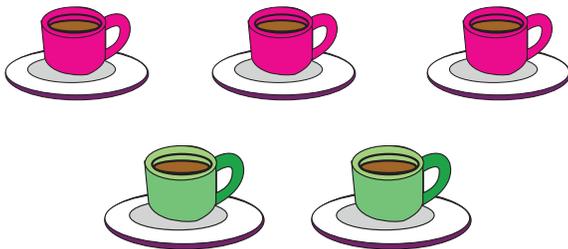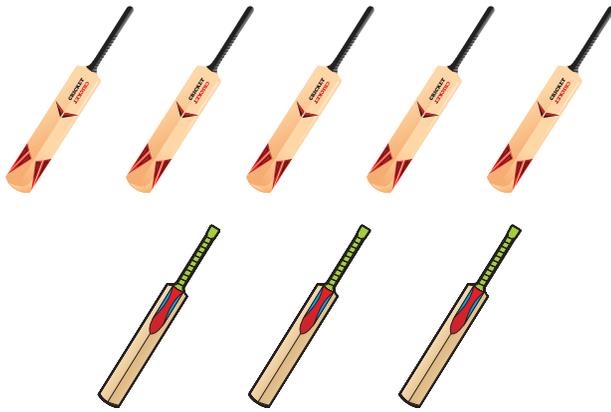
Think like a mathematician

Addition facts of 3

$2 + 1$ and $1 + 2$

Find all addition facts of 5.

Find all addition facts of 6.

Learn

Addition using beads

$$
\begin{array}{r}
3 \\
+\ 4 \\
\hline
7
\end{array}
$$
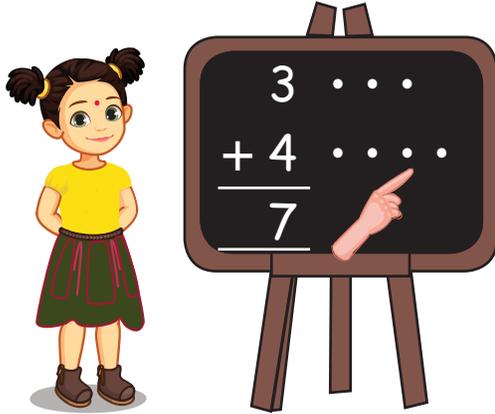
$$
\begin{array}{r}
5 \\
+\ 1 \\
\hline
6
\end{array}
$$

Practice

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

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

$$
\begin{array}{r}
4 \\
+5 \\
\hline
\end{array}
$$

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

$$
\begin{array}{r}
1 \\
+7 \\
\hline
\end{array}
$$

$$
\begin{array}{r}
3 \\
+4 \\
\hline
\end{array}
$$

$$
\begin{array}{r}
4 \\
+2 \\
\hline
\end{array}
$$

$$
\begin{array}{r}
7 \\
+2 \\
\hline
\end{array}
$$

Learn

Addition using fingers

3 + 5
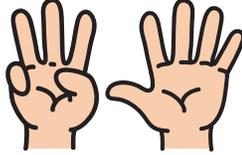
$$\begin{array}{r} 3 \\ + 5 \\ \hline \\ \hline \end{array}$$

8

Practice

2 + 3 = 5	$\begin{array}{r} 2 \\ +3 \\ \hline 5 \\ \hline \end{array}$
4 + 4 = ☐	$\begin{array}{r} 4 \\ +4 \\ \hline \\ \hline \end{array}$
5 + 1 = ☐	$\begin{array}{r} 5 \\ +1 \\ \hline \\ \hline \end{array}$
2 + 7 = ☐	$\begin{array}{r} 2 \\ +7 \\ \hline \\ \hline \end{array}$

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Pleasure time

Add and tick (✓) the correct answer.

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

Colour two numbers which make 8.

④	①(pink)	③	⑦(pink)	⑥
①	②	⑥	⑤	④
⑨	②	③	⑦	⑤

Colour two numbers which make 9 in different ways.

④(blue)	①(pink)	⑤(blue)	③	⑧(pink)
③	④	⑥	②	⑦

EZFGS

Try this

Circle the numbers which give a sum of 9.

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

Mind math

Look at the first one and do the rest.
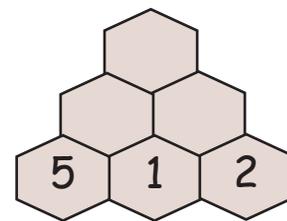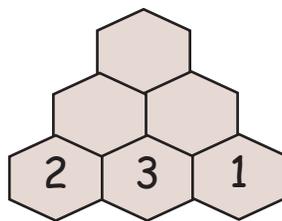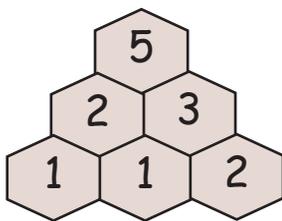
Mind math (To be done orally).

1. Akilan has 4 pencils. Mukilan gives him 2 more. How many pencils does he have **totally**?

2. There are 5 flowers in a plant and 3 flowers are there in another plant. How many flowers are there **altogether**?

3. Ruby's father gave her 6 chocolates and her mother gave 2 chocolates for her birthday. **Totally** how many chocolates does Ruby have in her hand?

Think like a mathematician

5   4   2   3

1. Pick a pair from the above numbers. Write addition fact for it.

2. Pick another pair of numbers. Write addition fact for it.

3. Keep doing it. How many different answers will you get?

2.3 Subtraction

Travel through

80TM6
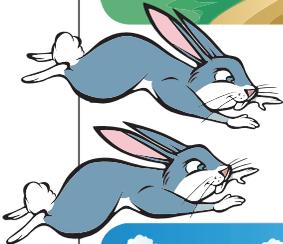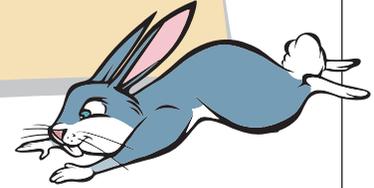
Teacher's note

Teacher narrates the above pictures for enhancing the vocabularies such as **difference, less, move away, go away** to denote subtraction.

Take away

Learn

Subtraction means to 'take away'.

From 3   take away 1   left 2
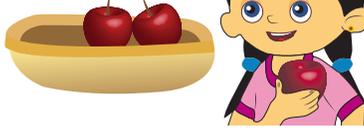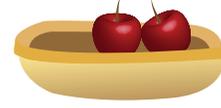
Practice
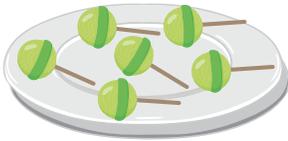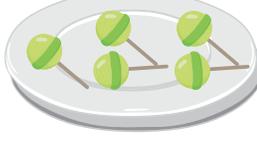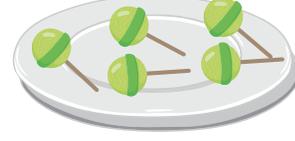
From [ ]   take away [ ]   left [ ]

From [ ]   Move away [ ]   left [ ]

From [ ]   go away [ ]   left [ ]

From [ ]   fly away [ ]   left [ ]

42

Subtract

Learn

' – ' is the sign of subtraction.

| 5 | – | 2 | = | 3 |

Practice

| ☐ | – | ☐ | = | ☐ |

| ☐ | – | ☐ | = | ☐ |

| ☐ | – | ☐ | = | ☐ |

| ☐ | – | ☐ | = | ☐ |

43
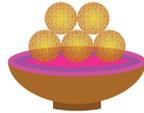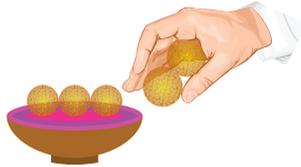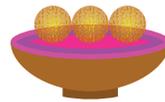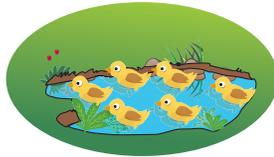
Learn

Complete the subtraction fact by circling.

7 − 3 = 4

Practice

5 − 2 =

6 − 4 =
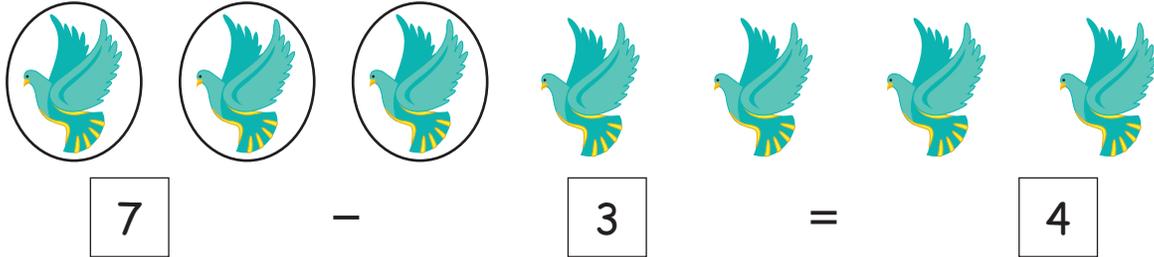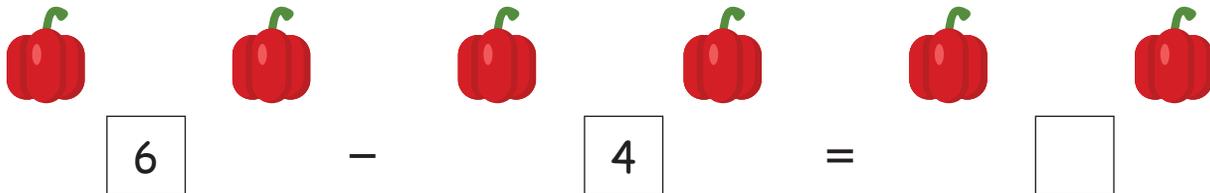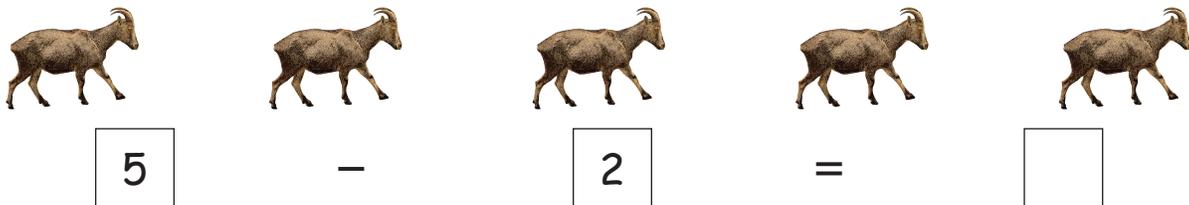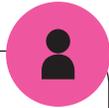
Learn

Complete the subtraction fact by striking.

4 − 3 = 1

Practice

9 − 6 =
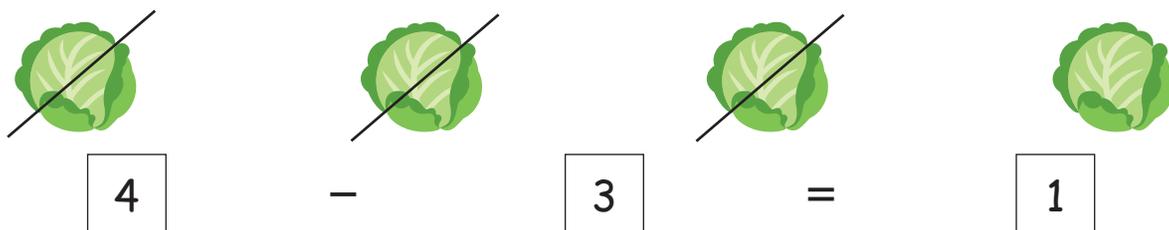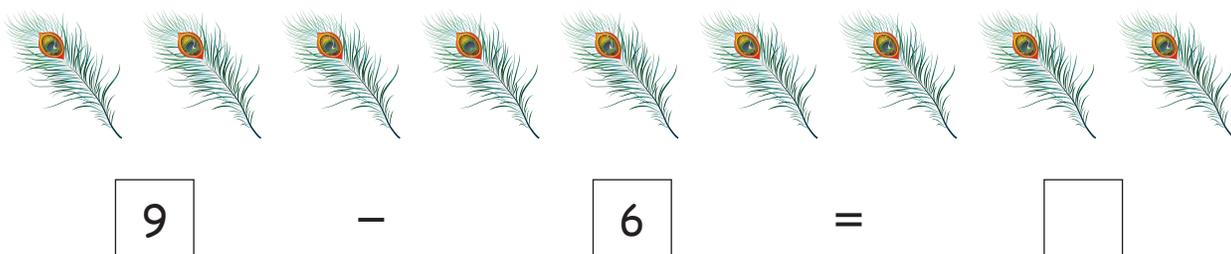
Subtraction using lines

Learn

3 − 2 = 1
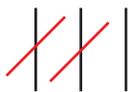
$$\begin{array}{r} 3 \\ -\ 2 \\ \hline 1 \end{array}$$

Practice

$\begin{array}{r} 6 \\ -\ 1 \\ \hline \\ \hline \end{array}$	$\begin{array}{r} 5 \\ -\ 2 \\ \hline \\ \hline \end{array}$	$\begin{array}{r} 9 \\ -\ 4 \\ \hline \\ \hline \end{array}$

Subtraction using beads

Learn

5 − 1 = 4

$$\begin{array}{r} 5 \\ -\ 1 \\ \hline 4 \end{array}$$

Practice

$\begin{array}{r} 6 \\ -\ 1 \\ \hline \\ \hline \end{array}$	$\begin{array}{r} 5 \\ -\ 2 \\ \hline \\ \hline \end{array}$	$\begin{array}{r} 9 \\ -\ 4 \\ \hline \\ \hline \end{array}$

Try this

Create your own subtraction fact ☐ − ☐ = ☐

TN_GOVT_Maths_Ch02.indd 45   19-12-2019 16:42:37

Mind math

Fill in the boxes to get 3.

$\square - 4$

$9 - 6$

3

$8 - \square$

$\square - \square$
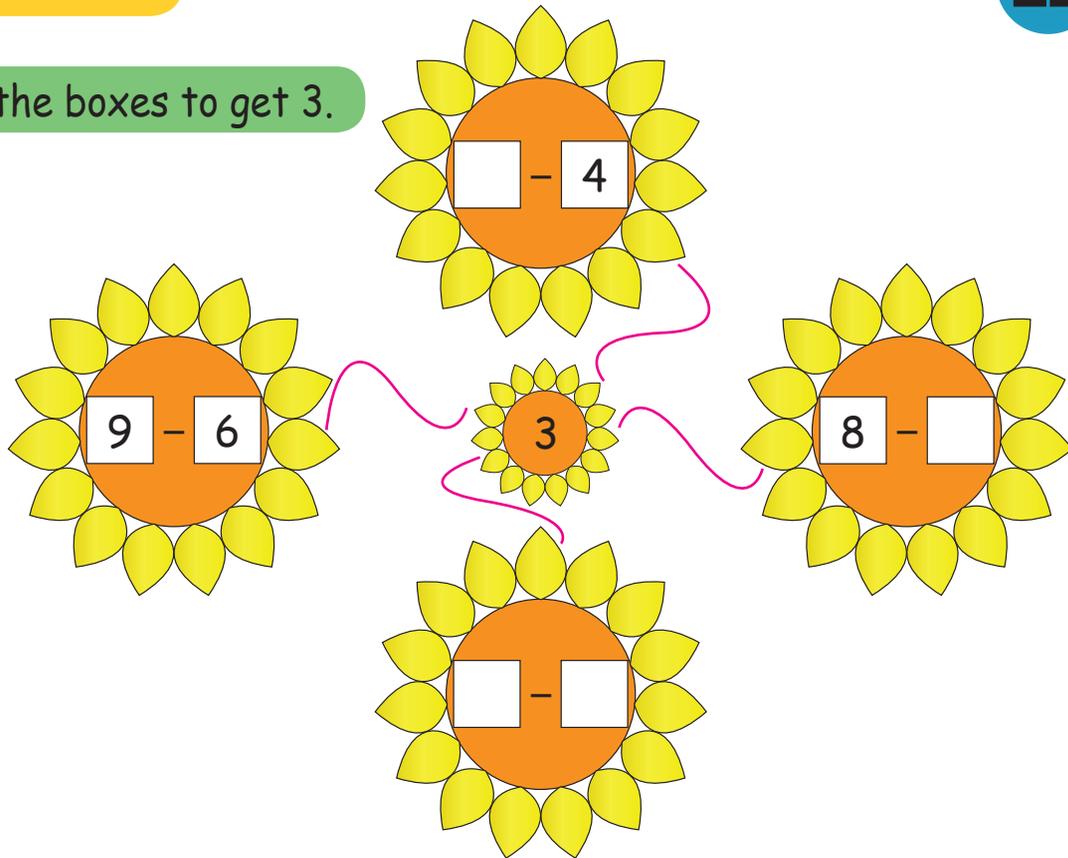
Mind math (Oral)

1. Pari bought 7 bananas. His brother ate 2 of them. How many bananas are left with Pari?

2. Mani bought 6 eggs. 3 of them were broken. How many eggs are left?

3. Thendral is 8 years old. Her sister Nila is 2 years younger than her. How old is Nila?

Think like a mathematician

How can I fill these boxes using the numbers 8, 5, 3?

$\square - \square = \square$

Pleasure time

Fill in the circle by $+$ or $-$

3	+	2	=	5
4	◯	2	=	2
8	◯	3	=	5

3	◯	3	=	6
9	◯	2	=	7
2	◯	6	=	8

FGHPT

Try this
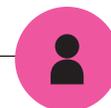
I am more than 5 and less than 8. I am not 7. Who am I ?

Activity

Aim: Creating subtraction stories.
Things needed: Flash card with subtraction facts like

| 5 – 2 | 4 – 1 | 7 – 3 | 9 – 4 |

Procedure:

1. Divide the class into two groups.
2. Let the students from one group pick up the card from the deck and show it to the other group.
3. Students from that group have to make a subtraction story for that card.
4. This activity can be interchanged between the groups and continued.

Teacher's note

Teacher can encourage the children to tell stories on addition and subtraction on their own. This encourages mathematical communication in the classroom.

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2.4 Zero

Travel through

I am the Hero My name is Zero

Three bits of paper lying on the floor,
pick one up, put it in the bin;
Look at the floor now, two are left.

Two bits of paper lying on the floor,
pick one up, put it in the bin;
Look at the floor now, one is left.

One bit of paper lying on the floor,
pick it up, put it in the bin;
Look at the floor now, there is no paper left.

Learn

2 parrots
in the cage.

1 parrot
in the cage.
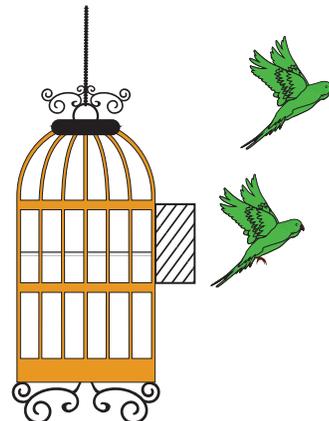
0 parrot
in the cage.

0 is also a number.

Teacher's note

Teacher can use the spindle board of SLM kit for enhancing the concept of Zero.

Practice
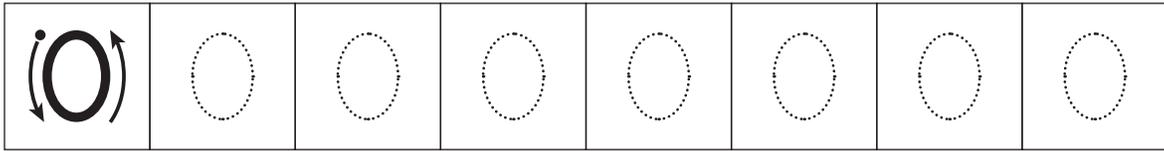
Pleasure time

1. Count and write the number of butterflies.

3

2. Count and write the number of pencils.

3. Count and write the number of tomatoes.

Unit 3   Patterns

3.1 Patterns in sounds

Travel through

On my way to school !

Mathi is going to school. On the way, she hears many sounds. She is enjoying the patterns in it. Let us go along with her and enjoy it.

Teacher's note

- Enact the situation in the classroom by producing the above sounds.

- Encourage the children to mimic some other sounds that they have heard in their real life situations. Example: Sounds of birds, animals, vehicles, etc.,

I am happy !

Clap, clap, clap
I am happy at my home;
So, I clap, clap, clap.

Snap, snap, snap
I am happy at my school;
So, I snap, snap, snap.

Stamp, stamp, stamp
I am happy at my class;
So I stamp, stamp, stamp.

Tap, tap, tap
I am happy everywhere;
So I tap, tap, tap.

36C9D

Teacher's note

- Sing the song by making the sounds.
- Further in the next rounds, while singing , the teacher should make the sounds instead of using the words clap, snap, stamp, and tap. This will add flavour to the sound pattern.

Practice

Let us clap

Teacher initiates the activity by clapping in a definite pattern.
* 1 clap -1 clap - 1 clap,...
* 2 claps - 2 claps - 2 claps,...
* 1 clap -1 clap -3 claps, 1 clap -1 clap -3 claps,...
* 3 claps-3 claps -1 clap -1 clap - 1 clap,...

Try this

Meow and Bow-Bow are friends. They are meeting after a longtime. Think how their conversation would be like!

Activity

Act and enjoy
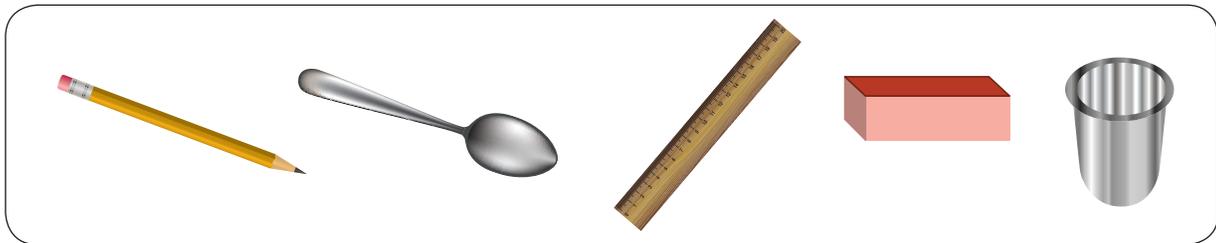
Aim: Creating patterns in sounds.

Things needed: Pencil, steel spoon, plastic scale, wooden duster, steel tumbler.

Procedure: By gently tapping these, make different sound patterns and enjoy. Follow the patterns given below. Try some other patterns also.

Number of taps					
	1	1	1	1	1
	2	2	2	2	2
	1	2	1	2	1

XLSN1

Oh! sound patterns are everywhere! Where do you hear such patterns in sound? Share it!

3.2 Patterns in Colour

Travel through

Colourful Garden

Speak out

- Look at the trees and the plants . How are they arranged?
- Look at the colours of the slides. What is the pattern here?
- Look at the colourful balloons. What is the pattern in it?
- Do you see any other colourful patterns in the garden? Share it in the class with your friends.

Learn

Observe and identify the pattern.
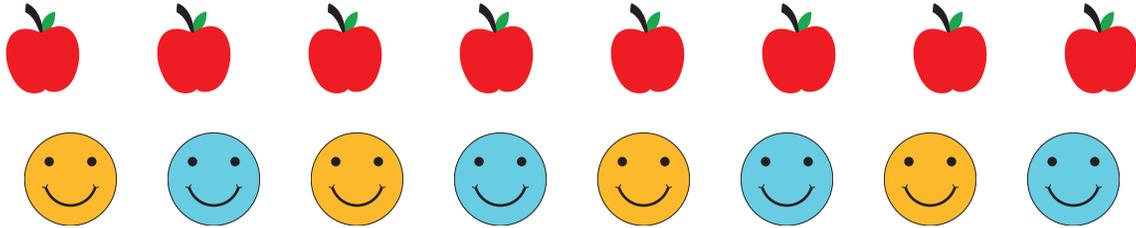
Practice

Colour and complete the pattern.
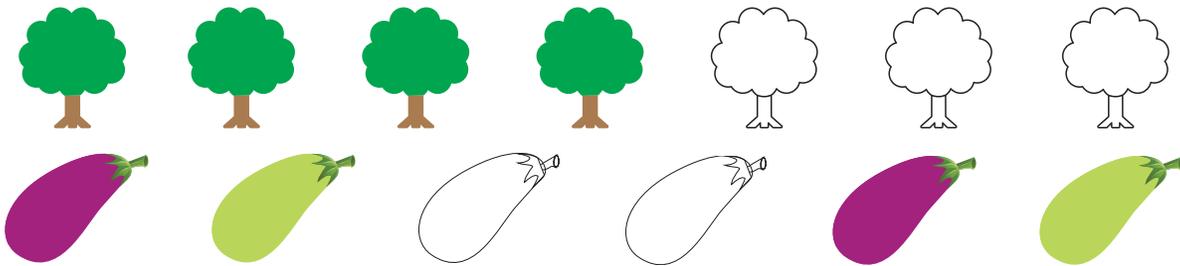
Pleasure time

Observe the pattern and choose the correct one by ticking it.

_____

_____

Activity

Make a colourful Pattern on your own.
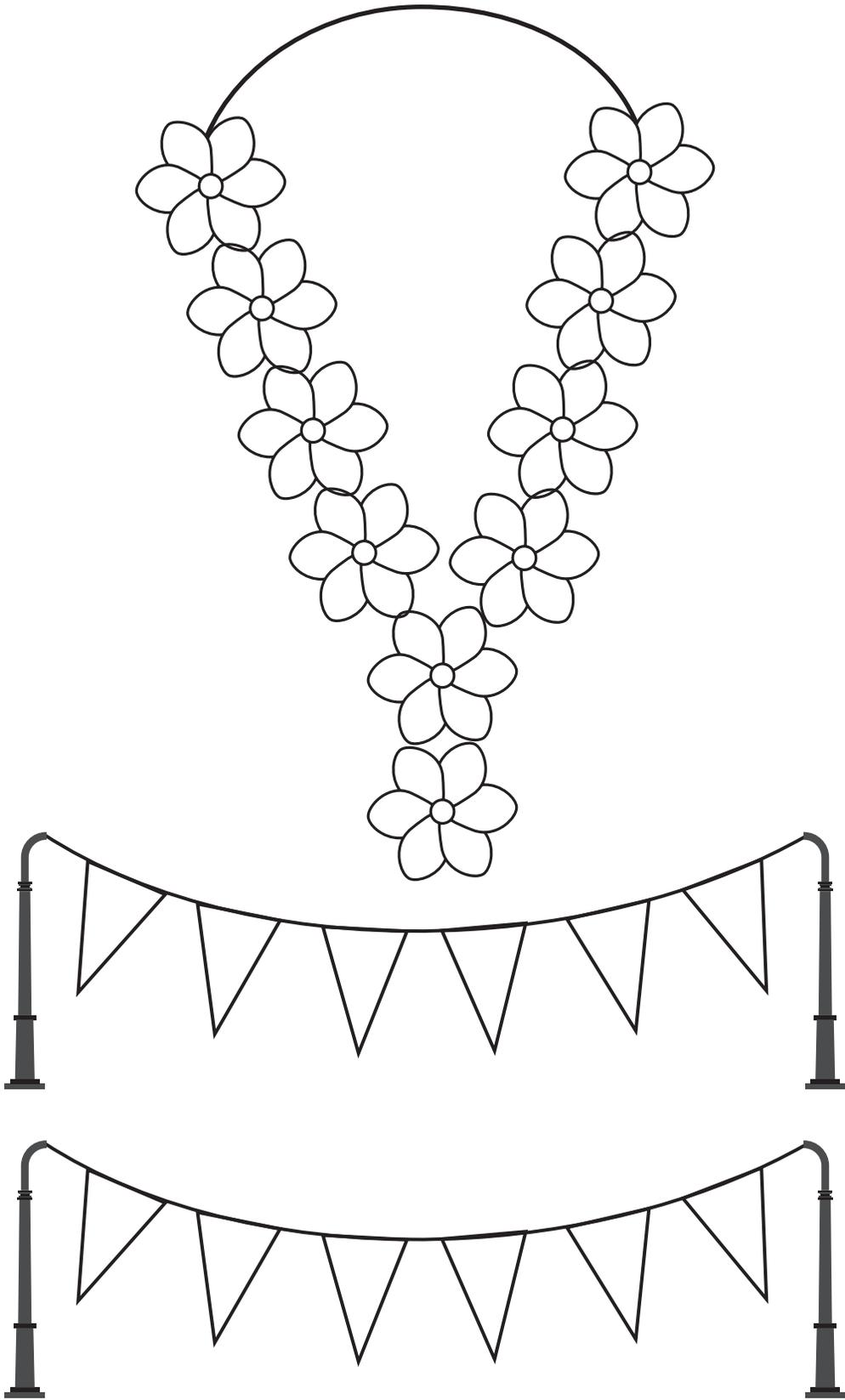
Unit 4 Information Processing

4.1 Systematic listing

Travel through

Colourful fishes

A87TZ

Learn

Count the number of fishes of each kind in the tank and colour them below.

Learn

Come! let us play!

Answer the following from the picture:

1. Number of children playing seven shots _____

2. Number of electric posts _____

3. Number of children sitting under the tree _____

4. Number of crows _____

5. If all the children join together in the train game, then how many will be there in the game?

6. Tell the other games that you play.

57

Practice

Birthday celebration

Look at the picture given above. Count and write.

	2		3

4.2 Organising Information

Learn

Know your relatives.

Relationship	Number of relatives
Brother	
Sister	
Grand Father	
Grand Mother	
Uncle	
Aunt	

Activity

Means of transport

Procedure:

1. Divide the class into small groups.

2. Discuss among the group members how each child comes to school?

3. Ask them to complete the table by marking the symbol "●" in the table.

4. Example: If 3 students come to school by bicycle, then mark the symbol "●" 3 times against the 🚲.

How do they come to school?	"●" denoting number of students	Total

Answer the following based on the data collected.

1. How do you come to school ? Tick (✓) it.

2. How many friends in your group come to school by walk? ☐

3. Total number of members in your group ☐ .

4. Tick (✓) the means of transport which is used most in your group?

5. Tick (✓) the means of transport which is used least in your group?

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