



GOVERNMENT OF TAMIL NADU

STANDARD ONE

TERM - II

VOLUME 2

**MATHEMATICS
ENVIRONMENTAL STUDIES**

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MATHEMATICS

STANDARD ONE

TERM - 2



MATHEMATICS

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E-Book



Evaluation



Digilink

Unit 1

Geometry

Keywords

Square, Rectangle,
Circle, Triangle

Recall

Who am I?

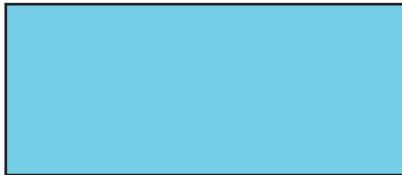


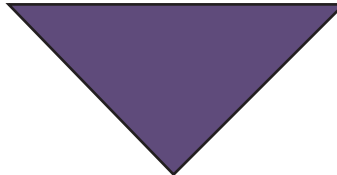
Teacher's Note

Call a student and tie a kerchief over her eyes. Give an object to the child to touch and feel. Ask whether it is flat or round? Continue the same with other objects.

Practice

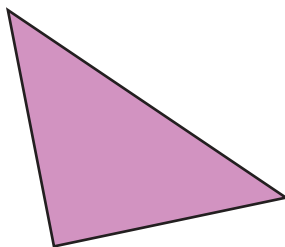
How many corners are there?



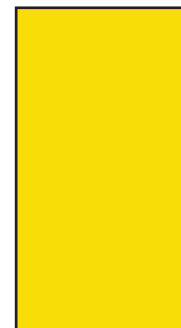




How many edges are there?









1.1 Introduction to basic shapes

Travel through

Shall we go to the shop?

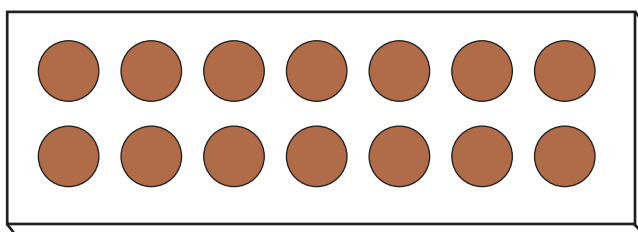
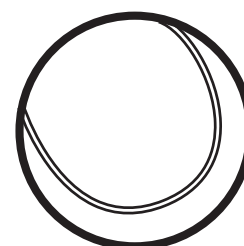
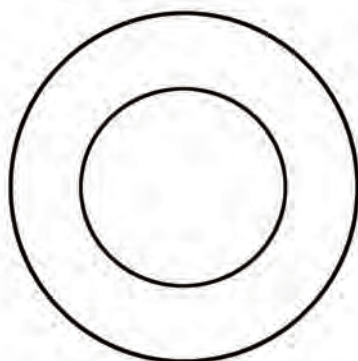
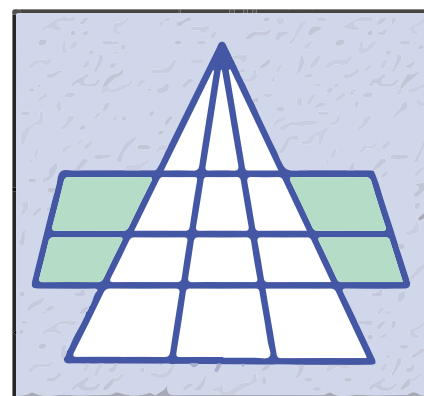
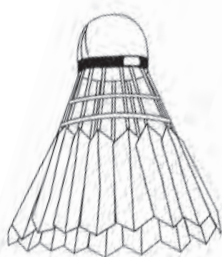
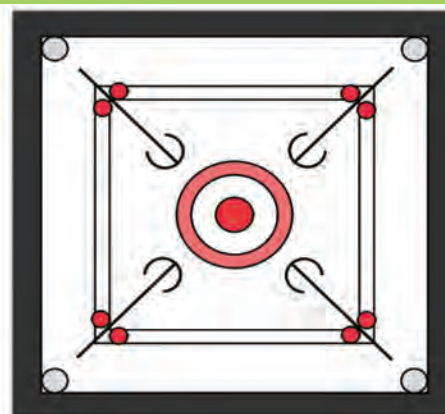
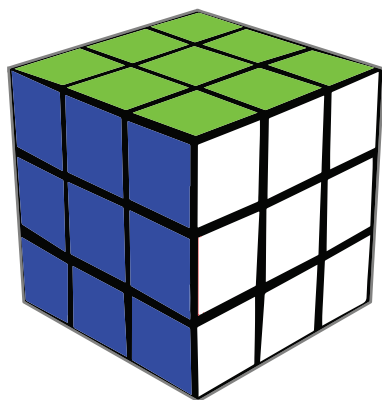




Try this



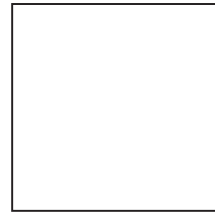
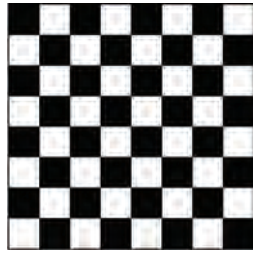
Look at the picture given in the previous page and colour the similar objects given below with the same colour.



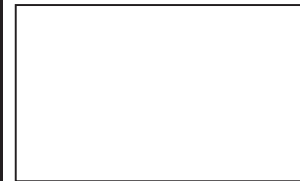
Learn



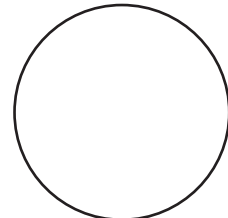
Let us learn the names of the basic shapes.



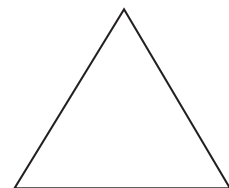
Square



Rectangle



Circle



Triangle

Try this

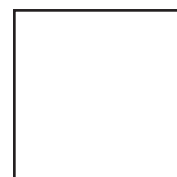
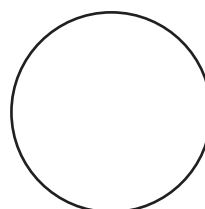
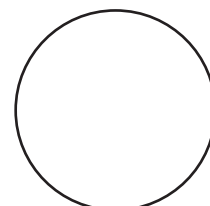
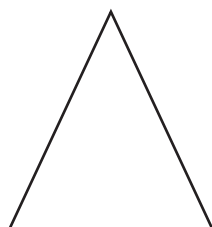
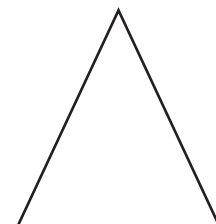
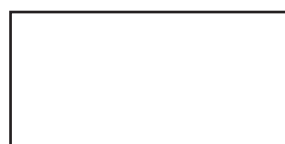
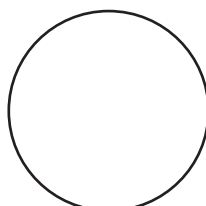
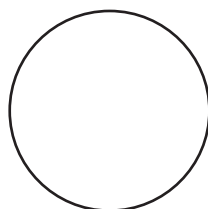


Can you suggest one more example for each shape?

Practice



Place your thumb impression on the shape which is similar to the object.



Activity



Play with clay

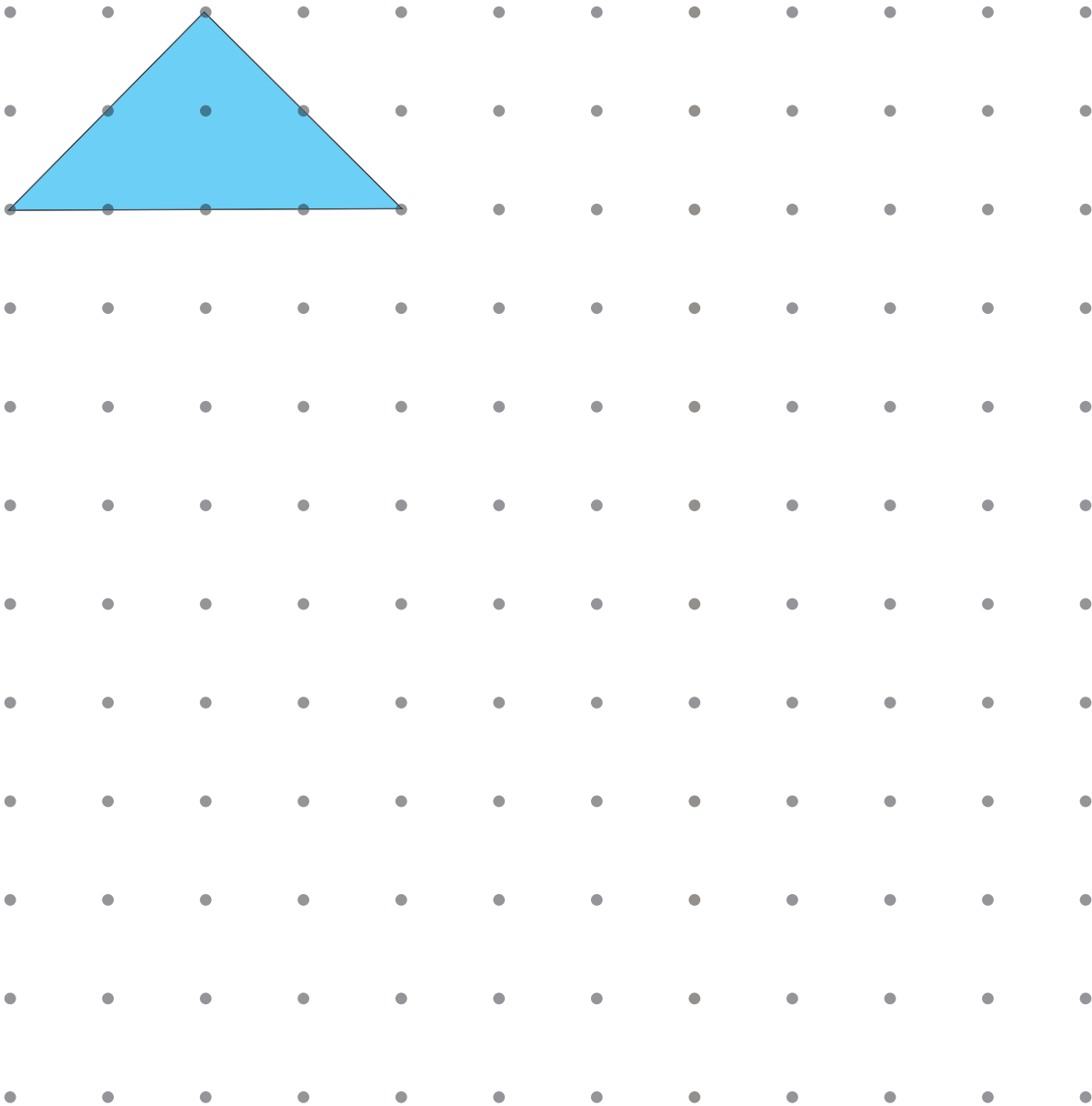
Create different shapes of your own using clay and display them.



Try this



Join the dots and get different shapes. One is done for you.



Think like a Mathematician



1. Can you draw basic shapes in different sizes using the given dots?
2. Can you draw a circle by joining the given dots?

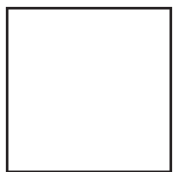
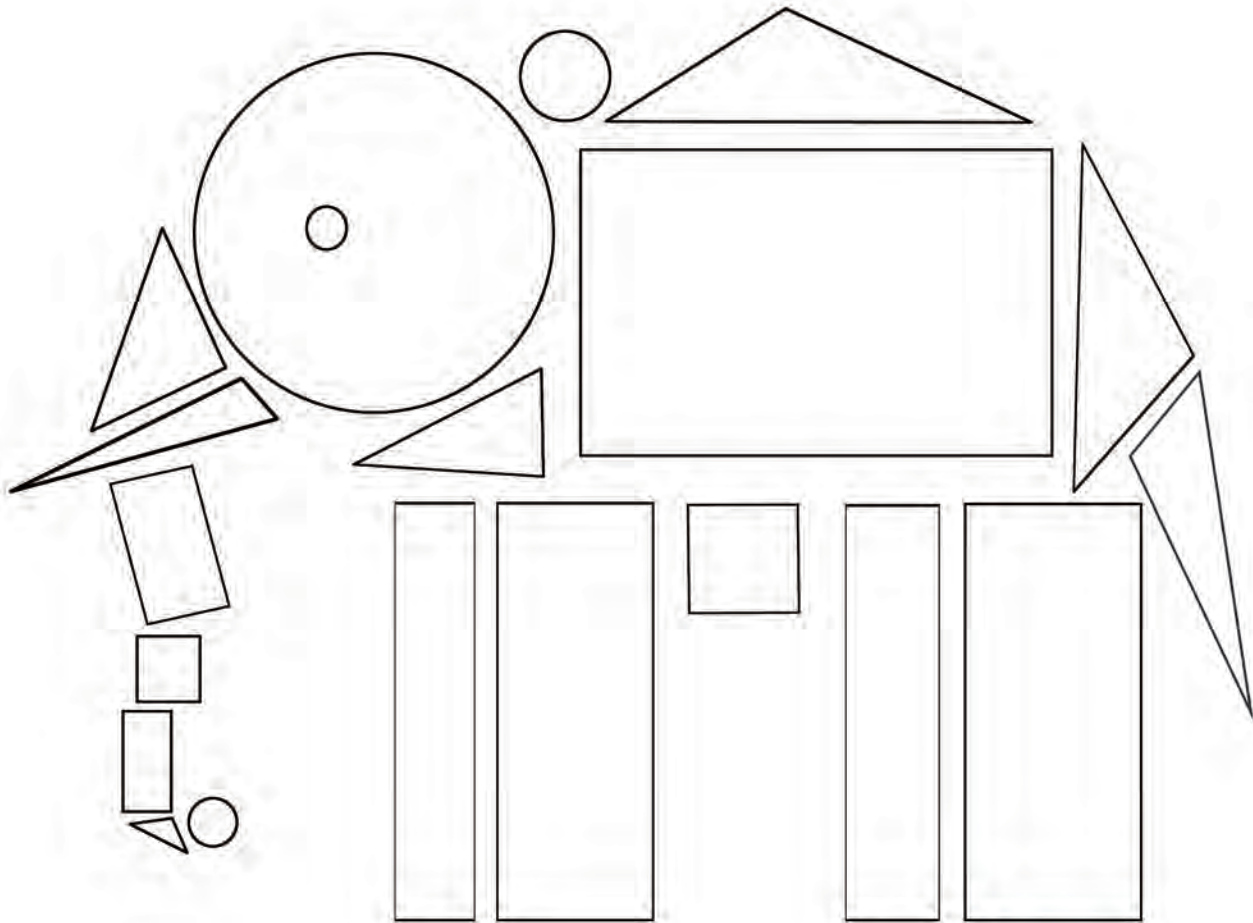




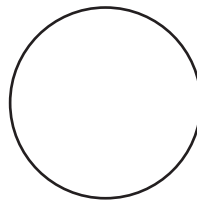
Pleasure time



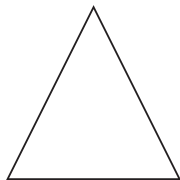
In the given picture, shade the similar shapes with same colour.
Count and write them below.



.....



.....



.....



.....



Game 1

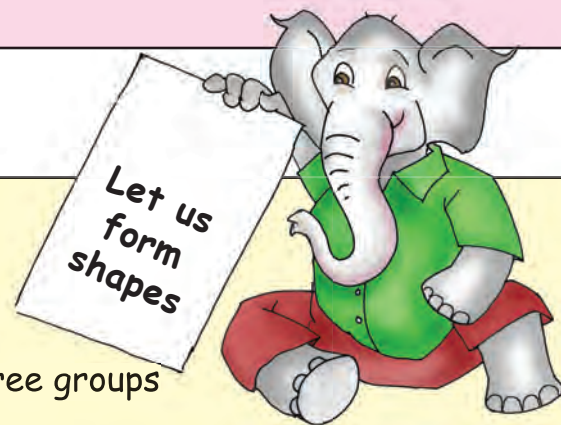


Procedure:

- ▶ Draw the shapes of square, triangle, rectangle and circle on the floor.
- ▶ When the teacher starts clapping, students have to run around the shapes.
- ▶ When the teacher stops clapping, all the students should stand on any one of the shapes, as they like.
- ▶ Now the teacher can show any one of the shape cards. Then the students who are standing on the particular shape will clap and say the name of it loudly (Eg: If the teacher shows the '**square**' card, the students standing on the '**square**' shape will clap and say the name '**square**' loudly).
- ▶ Teacher can continue the game till the students get familiarized with all the shapes.

Game 2

Procedure:



- ▶ Divide the students into two or three groups according to the strength of the class.
- ▶ When the teacher says the name of any one of the shapes, all the children in the groups should move to form that particular shape.
- ▶ Teacher can appreciate the group which forms the said shape correctly and quickly.
- ▶ Teacher can repeat this game for other shapes also.

1.2 Introduction to straight lines

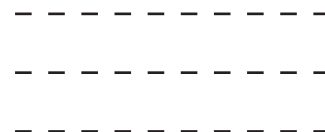
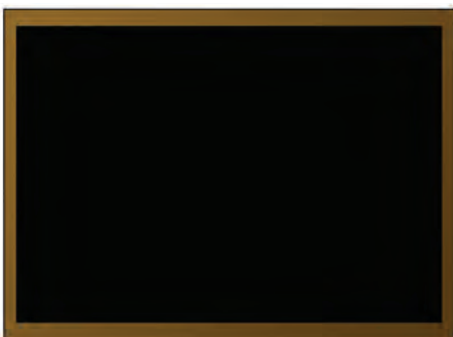
Learn

Observe and trace the lines.

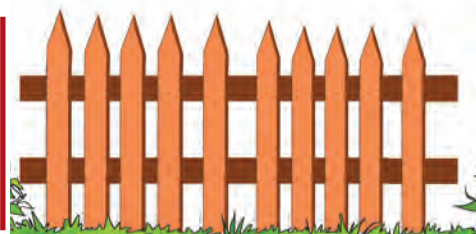
Keywords

Horizontal line
Vertical line
Slanting line

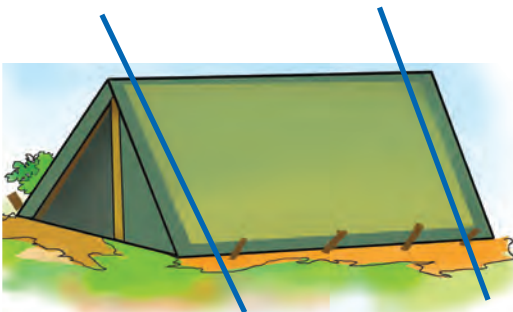
Horizontal line



Vertical line



Slanting line



Practice

Trace the picture by using the given colourful lines.

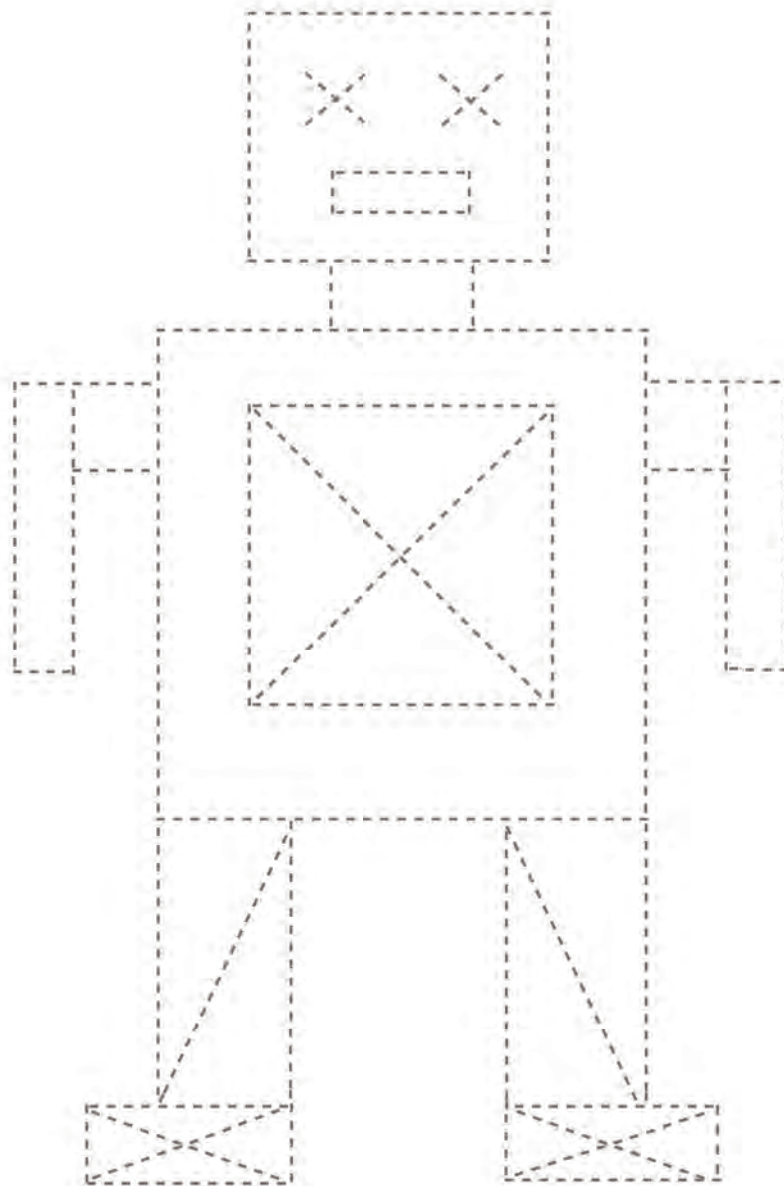
Horizontal line



Vertical line



Slanting line



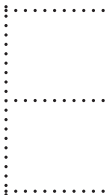
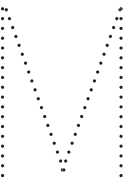
Teacher's Note

Teacher needs to make the children familiarize with the variety of slanting lines.

Think like a Mathematician



Trace and observe the type of lines in the alphabet. Count and write.

Lines in the alphabet			
	1	0	2
			
			



Activity



Draw the pictures of your own using Horizontal line, Vertical line and Slanting line. One is done for you.



Unit 2 Numbers

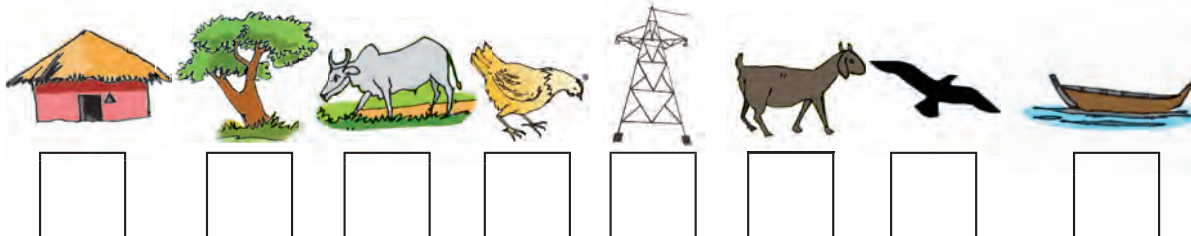
Keywords
Numbers, Before,
After, Between

Recall

Observe the picture.



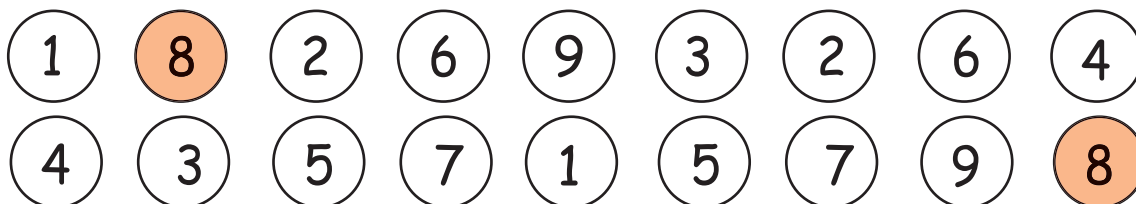
1. Count the following objects from the above picture and write their count.



2. Circle the numbers given below, that are found to be left in the above count.

1 2 3 4 5 6 7 8 9 0

3. Colour the same numbers with the same colour. One is done for you.

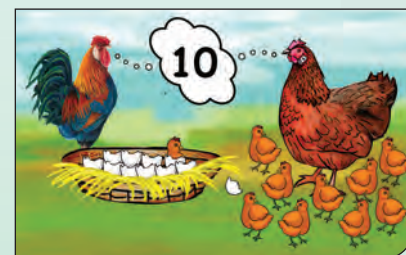
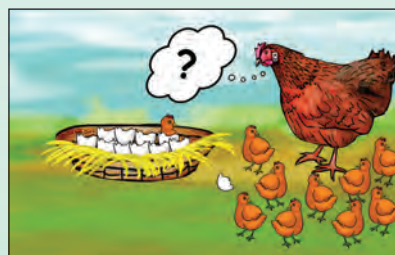
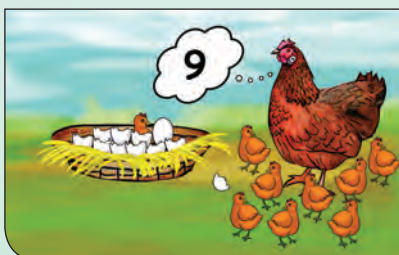
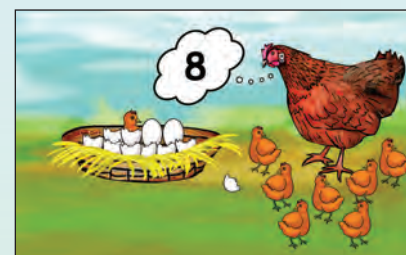
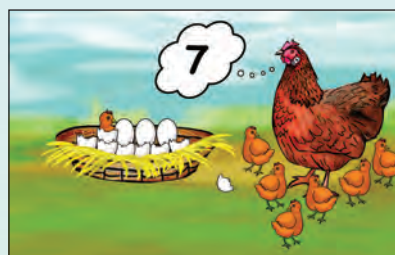
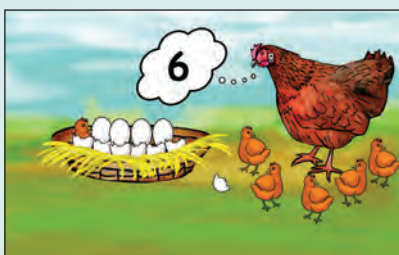
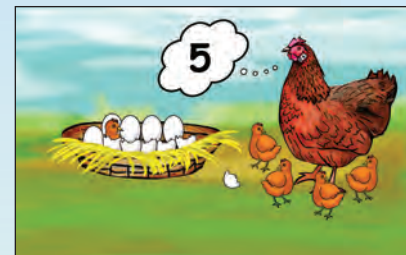
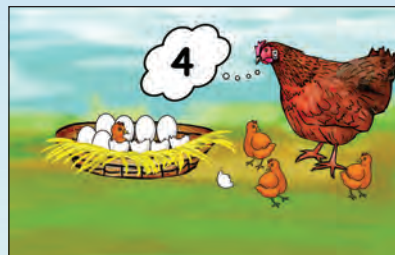
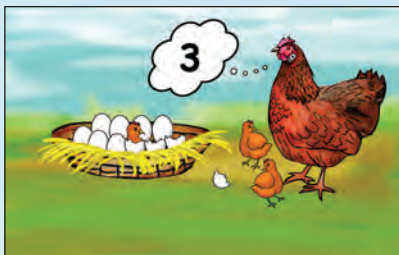
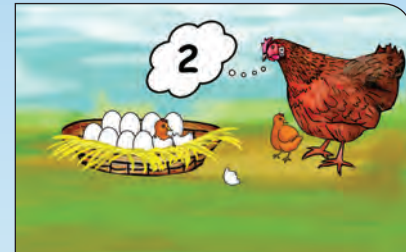
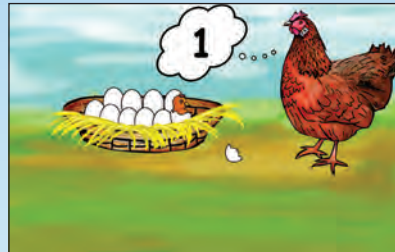
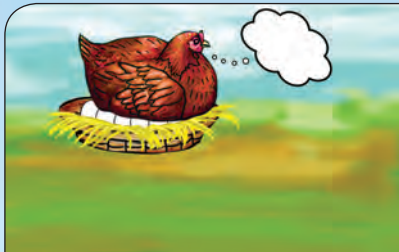


2.1 Introduction to number 10

Travel through



Counting the chicks.



Teacher's Note

Narrate the above story for the introduction of number 10.



Learn



Let us learn what comes after 9 by completing the table.

Beads	Fingers	Number
		0
		1

and one more makes ?

		10
--	--	----

10 is read as Ten.

10 ones = 1 ten



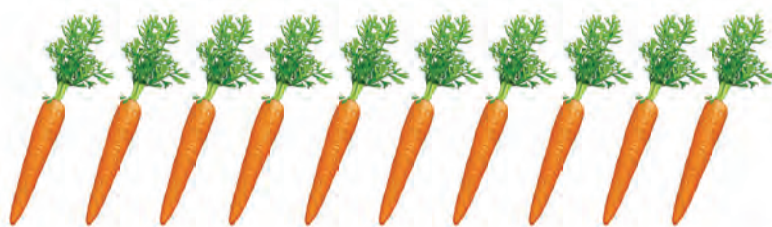


Learn



Let us make groups of 10.

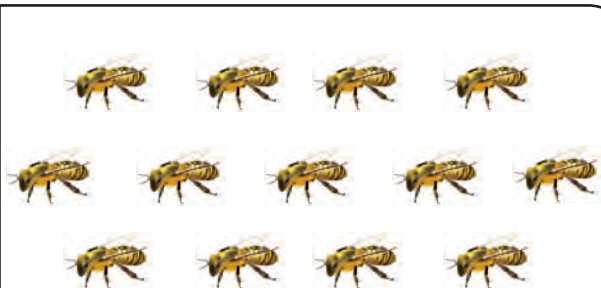
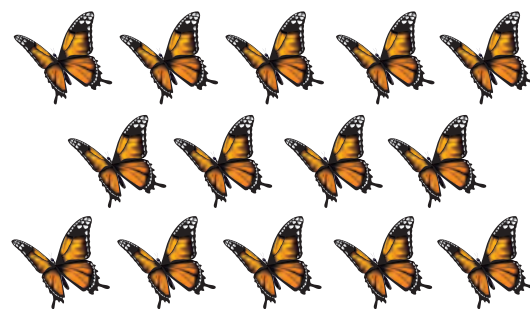
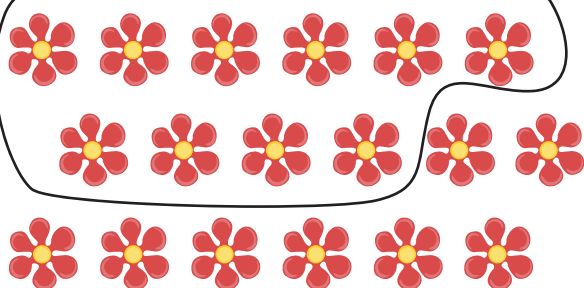
To make counting of large number of objects easier, we group 10 ones and make one bunch of ten.



Practice



Circle groups of 10.



Teacher's Note

Try other possible ways of grouping in tens with easily available items such as match sticks, seeds, unused buttons and pebbles etc.,



Practice

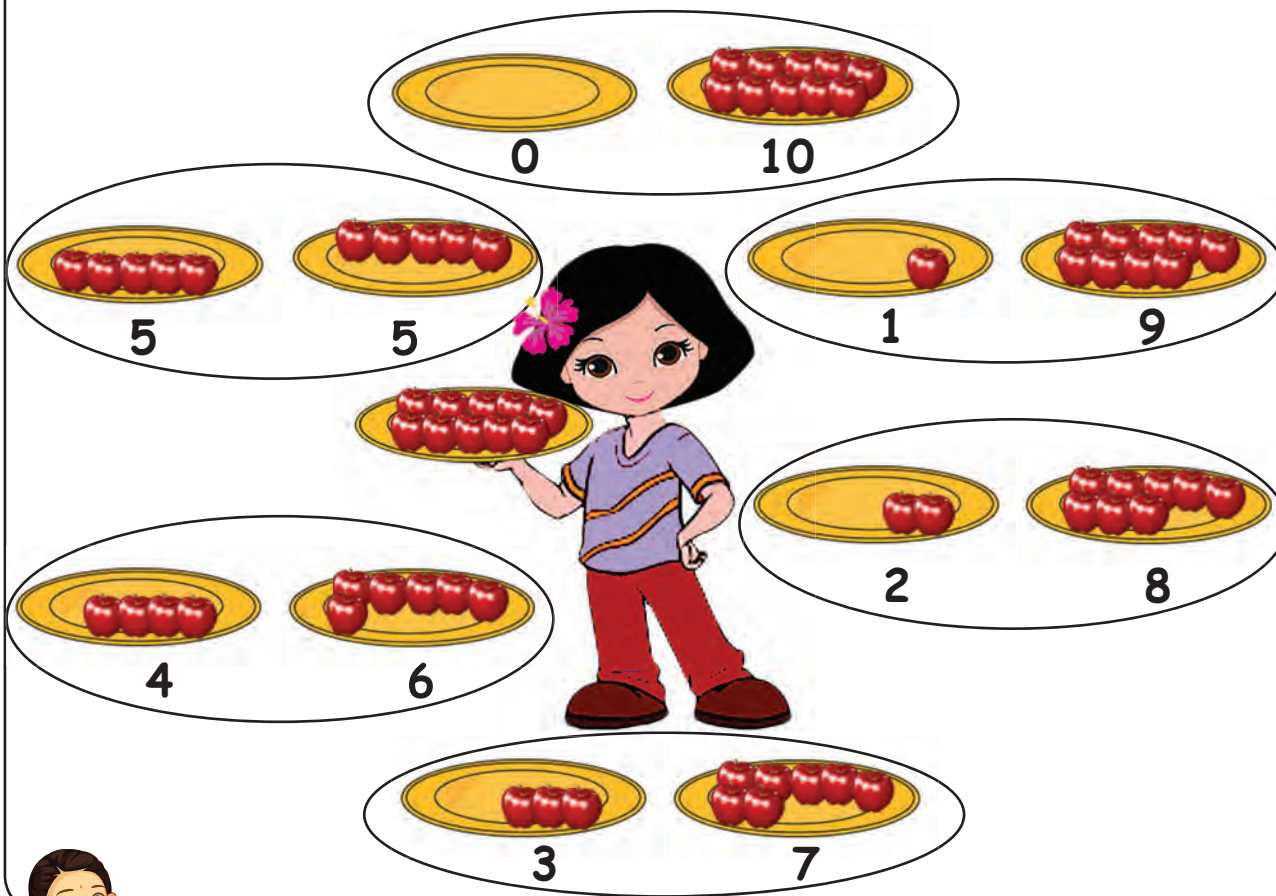


Trace and write number 10.

10	10	10	10	10	10

Know more

10 in many ways.



Think like a Mathematician

Are there any other possible ways of making 10 ? Say them.



2.2 Numbers from 10 to 20



Travel through

Number train, join for fun.

Chikku bukku chikku bukku
Number Train, Join for Fun.

Thadak thadak thadak thadak
Carriage **10**, come and join.

Badak badak badak badak
Carriage **11**, come and join.

Tudum dudum tudum dudum
Carriage **12**, come and join.

Kooo kooo kooo kooo
Carriage **13**, come and join.

Chikku bukku chikku bukku
Carriage **14**, come and join.

Thadak thadak thadak thadak
Carriage **15**, come and join.

Badak badak badak badak
Carriage **16**, come and join.

Tudum dudum tudum dudum
Carriage **17**, come and join.

Kooo kooo kooo kooo
Carriage **18**, come and join.

Thadak thadak badak badak
Carriage **19**, come and join.

Tudum dudum tudum dudum
Carriage **20**, come and join.

Chikku bukku chikku bukku
Number Train, Join for Fun.

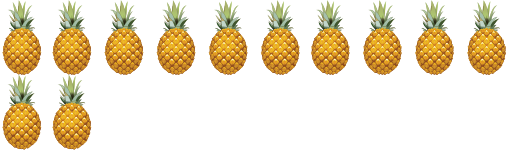
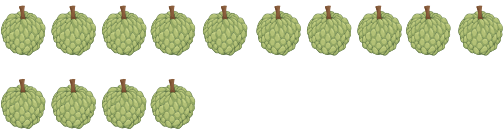
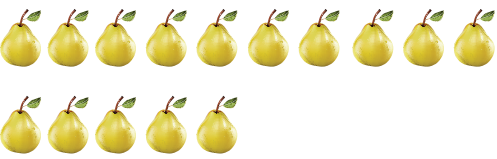




Learn



Numbers from 1 to 20.

 1	 2
 3	 4
 5	 6
 7	 8
 9	 10
 11	 12
 13	 14
 15	 16
 17	 18
 19	 20

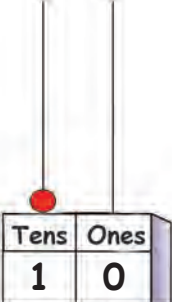
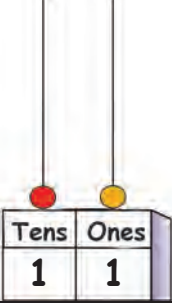
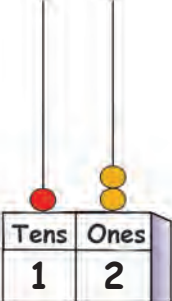
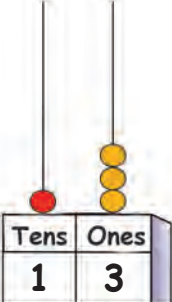
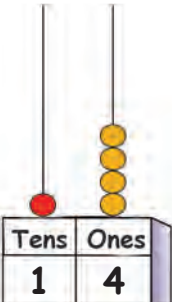




Learn



Numbers from 10 to 20.









Practice

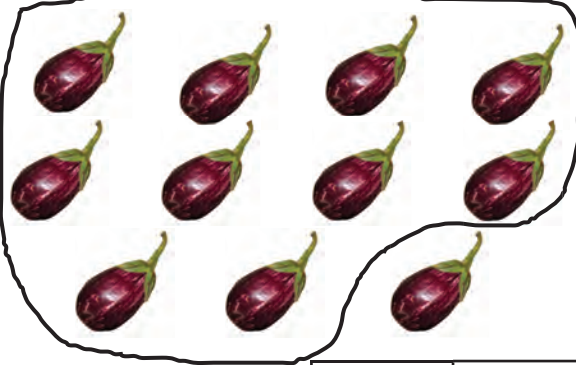
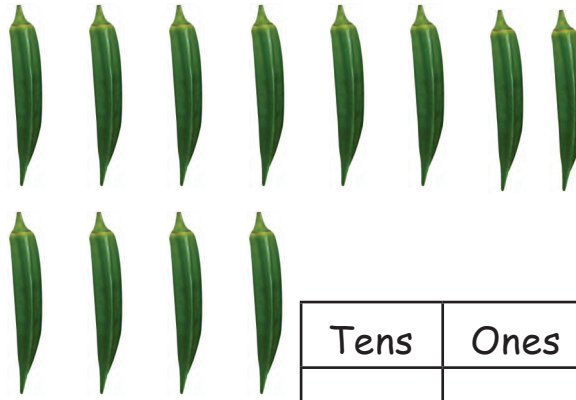
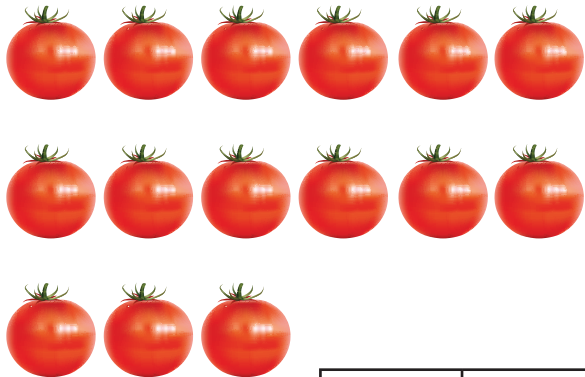


Write the numbers.

11	12	13	14	15	16	17	18	19	20
11	12	13	14	15	16	17	18	19	20

Group ten objects. Write tens and ones.



	<table border="1"><tr><td>Tens</td><td>Ones</td></tr><tr><td>1</td><td>1</td></tr></table>	Tens	Ones	1	1
Tens	Ones				
1	1				
	<table border="1"><tr><td>Tens</td><td>Ones</td></tr><tr><td></td><td></td></tr></table>	Tens	Ones		
Tens	Ones				
	<table border="1"><tr><td>Tens</td><td>Ones</td></tr><tr><td></td><td></td></tr></table>	Tens	Ones		
Tens	Ones				
	<table border="1"><tr><td>Tens</td><td>Ones</td></tr><tr><td></td><td></td></tr></table>	Tens	Ones		
Tens	Ones				



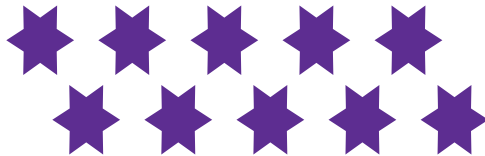


Pleasure time



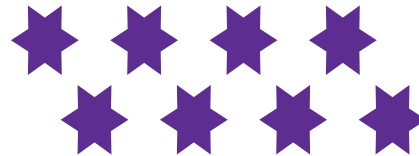
Draw the objects, for the given tens and ones.
Write the number. One is done for you.

1. Draw stars



1 Ten

18



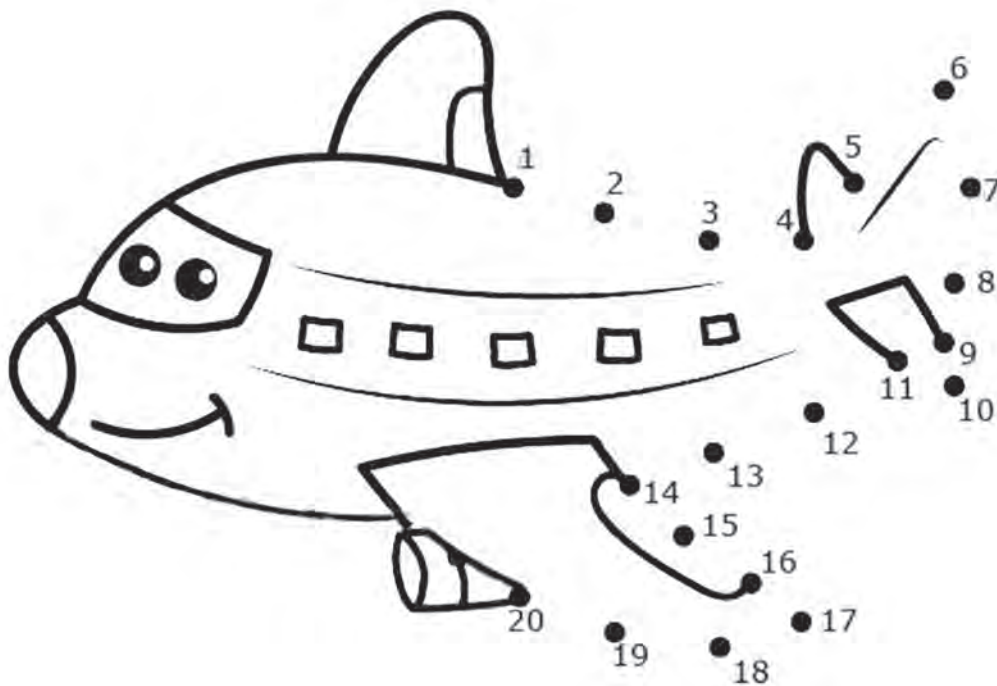
8 Ones

2. Draw eggs

1 Ten

2 Ones

Join the numbers in order, complete the picture and colour it.





Learn

Number Line

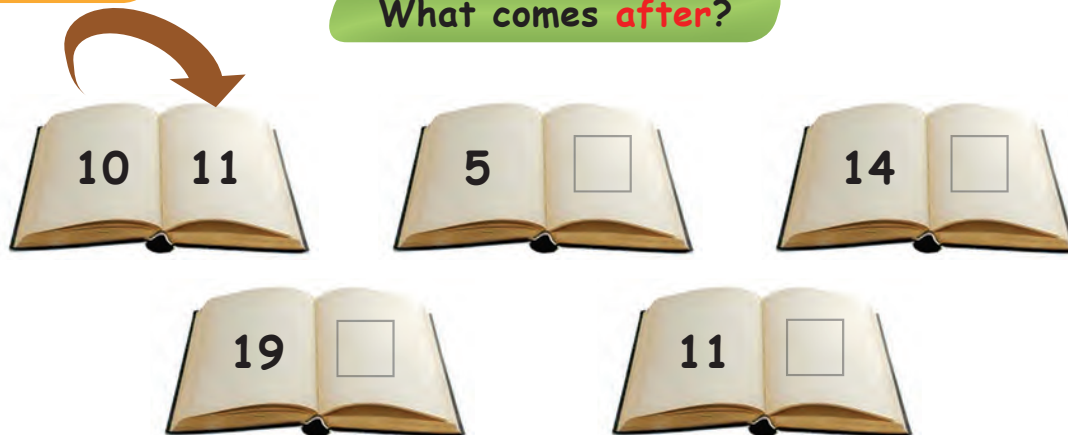


Teacher's Note

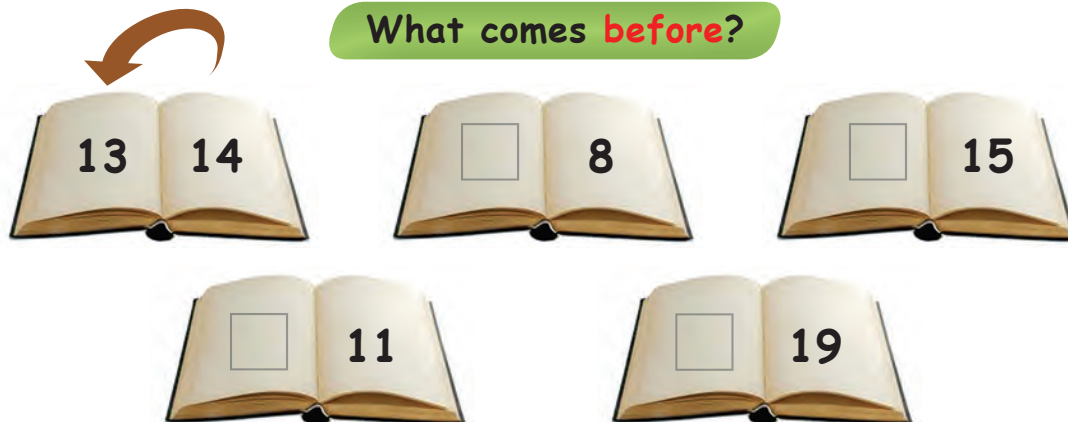
Teacher can use the Number line to enhance the concepts of **Before number**, **After number** and **Between number**.

Practice

What comes **after**?



What comes **before**?



Write the number that comes in **between** the given numbers.



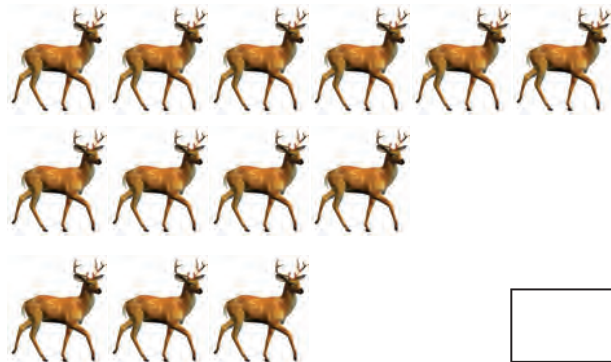
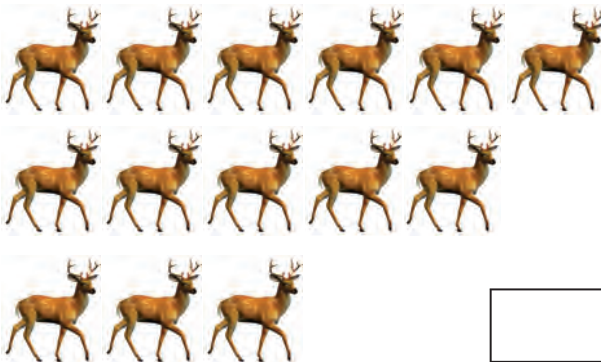


Practice



Comparing the numbers

Count and write the number in the box.
Tick (✓) the group with **more** animals.



Count and write the number in the box.
Tick (✓) the group with **less** objects.



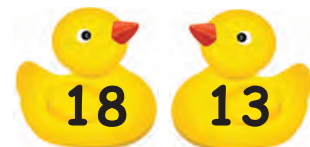
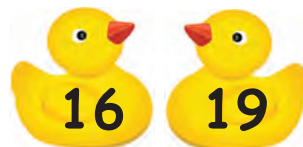


Practice



Bigger number and Smaller number

Circle the **bigger** number in each pair of birds.



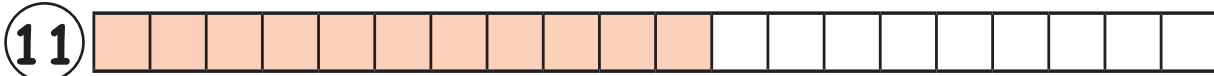
Circle the **smaller** number in each pair of birds.



Try this



Shade the boxes for the given number.
Circle the **bigger** number.

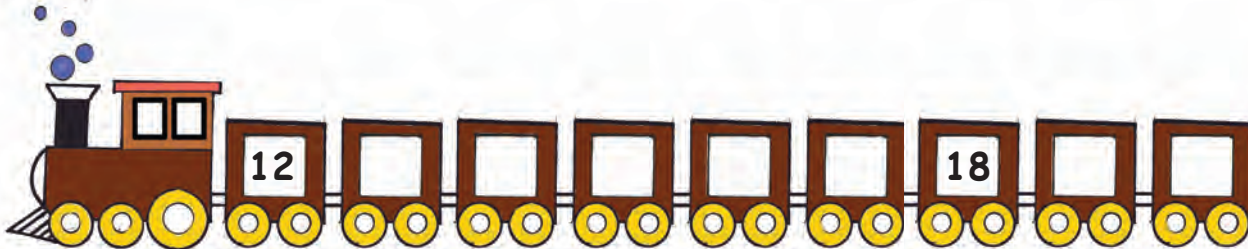
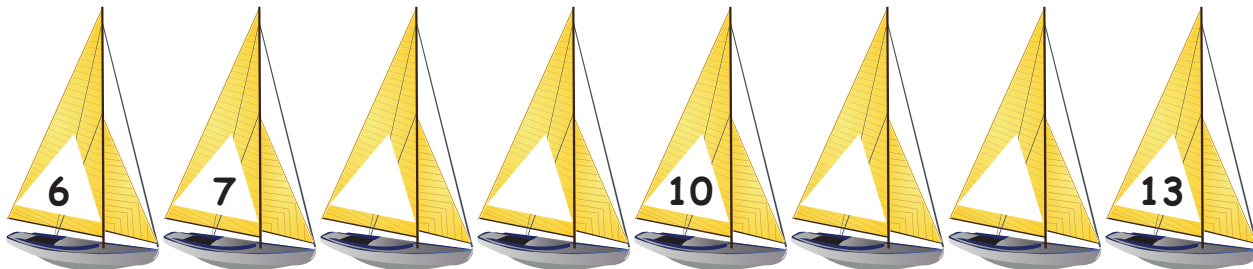




Pleasure time



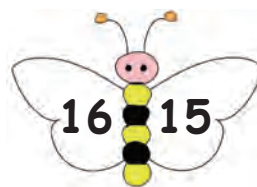
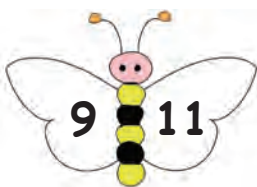
Write the missing numbers in the sequence.



Write the missing numbers.



Colour the wings of each butterfly such that **bigger** number is and **smaller** number is .



2.3 Addition

Recall

Addition upto 9



Number of children playing on the see-saw = _____

Number of children playing slide = _____

Total = _____

Teacher's Note

Teacher may ask more addition related questions based on the picture given above to recall the addition of numbers upto 9.

Add

5	3	2
+ 1	+ 3	+ 7

2 + 3 =	
1 + 6 =	
4 + 5 =	

Learn



Addition with zero



0 toy

+



3 toys

=



3 toys

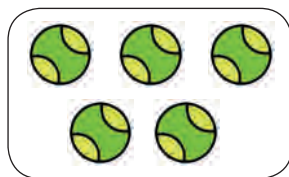
$$0 + 3 = 3$$

Know more

Zero added with any number gives the same number.

Practice

Draw and add



+



0

=



$1 + 0 = \boxed{}$

$4 + 0 = \boxed{4}$

$0 + 2 = \boxed{2}$

$5 + 0 = \boxed{}$

$0 + 3 = \boxed{}$

$0 + 6 = \boxed{}$

7	0	9
+ 0	+ 8	+ 0
_____	_____	_____
_____	_____	_____

Game

Teacher may arrange the paper cups on the table as shown in the picture. Give two chances for each student to hit the arranged cups from a particular distance using a ball. Note the number of cups hit by him/her in each chance. Finally ask them to count the total cups hit by them.

Number of cups hit on the first chance =

Number of cups hit on the Second chance =

Number of cups hit in both the chances together =



Keywords

Add, Total, Together,
Altogether, More



A vibrant, cartoon-style illustration of a boy and a girl walking through a savanna landscape. The girl, on the left, wears a blue shirt and a pink skirt, carrying a red backpack and holding a grey watering can. The boy, on the right, wears a blue shirt and brown shorts, also with a red backpack. They are walking on a dirt path surrounded by numerous acacia trees with green foliage and brown trunks. The background shows a hazy horizon under a light blue sky. In the bottom right corner, there is a QR code with the alphanumeric code '33XK3J' printed below it.



Selvi told the number of trees that had been counted by Mani and Kani is 12. Kani and Mani were surprised and asked "How did you say that?"

Trees counted by Mani is 7 | | | | | | | (Draw 7 lines)

Trees counted by Kani is 5 | | | | (Now draw 5 lines)

Total number of trees counted by both of them $\underline{\underline{12}}$

 (Total number of lines grouped in 10)



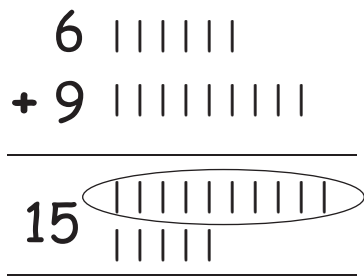
Learn



Addition

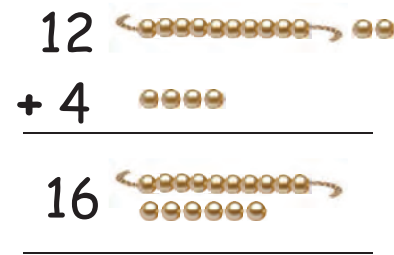
Using lines

$$6 + 9 = ?$$

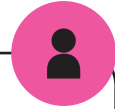


Using beads

$$12 + 4 = ?$$



Practice



Add

$$\begin{array}{r} 1 \\ + 9 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ + 5 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 15 \\ + 0 \\ \hline \\ \hline \end{array}$$

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

$$\begin{array}{r} 12 \\ + 4 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 19 \\ + 0 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 14 \\ + 3 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 11 \\ + 7 \\ \hline \\ \hline \end{array}$$

$$6 + 7 = \boxed{}$$

$$3 + 9 = \boxed{}$$

$$4 + 13 = \boxed{}$$

$$11 + 0 = \boxed{}$$

$$16 + 4 = \boxed{}$$

$$17 + 1 = \boxed{}$$





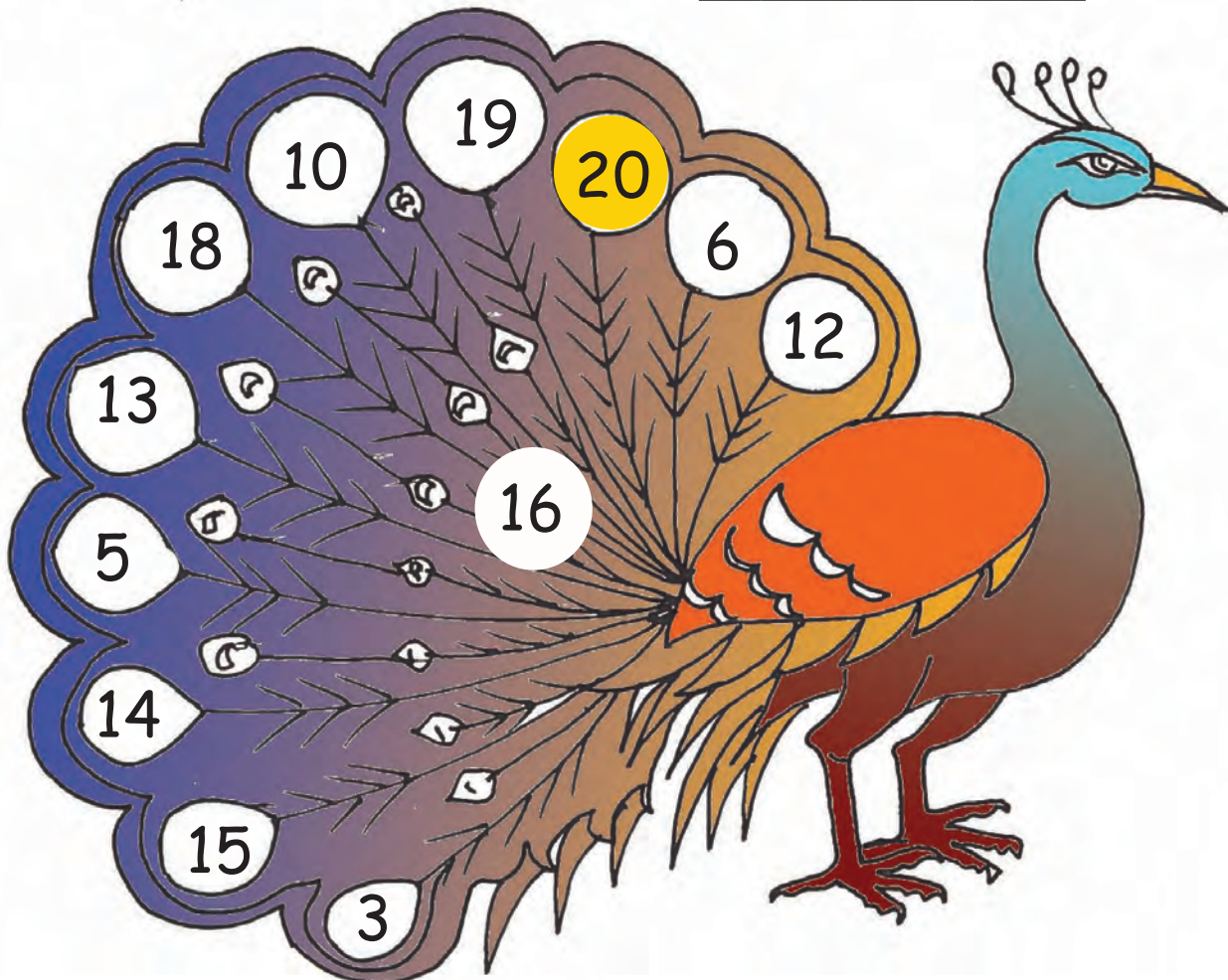
Pleasure time



Find the total of the two numbers given in the table. Colour the peacock with the colours indicated against the total.

Add	Total	Colour
2 + 1		Blue
5 + 0		Red
3 + 3		Orange
9 + 1		Cyan
6 + 6		Dark Blue
2 + 11		Gold

Add	Total	Colour
9 + 5		Red
11 + 4		Green
10 + 6		Dark Gray
13 + 5		Blue
16 + 3		Dark Red
7 + 13	20	Yellow





Think like a Mathematician



Match the pairs which make the sum 12?

6	5	11	3	10	4	12
1	6	2	0	8	9	7

A line connects the number 3 in the top row to the number 9 in the bottom row.

Match the pairs which make the sum 20?

4	2	17	5	19	7	14
16	1	18	3	6	15	13

A line connects the number 19 in the top row to the number 1 in the bottom row.

Mental math

Addition



- Arasi has 9 pencils, Kamala has 8 pencils. How many pencils do they have **altogether**?
- Mary plucked 7 mangoes, Agalya plucked 6 mangoes. They put the mangoes **together** in a basket. How many mangoes are there in the basket now?
- Chezhiyan is 12 years old. His sister age is 3 years **more** than him. How old is Chezhiyan's sister?
- Samirah has 8 crayons. She buys 4 more crayons. How many crayons does Samirah have **totally**?

Unit 3

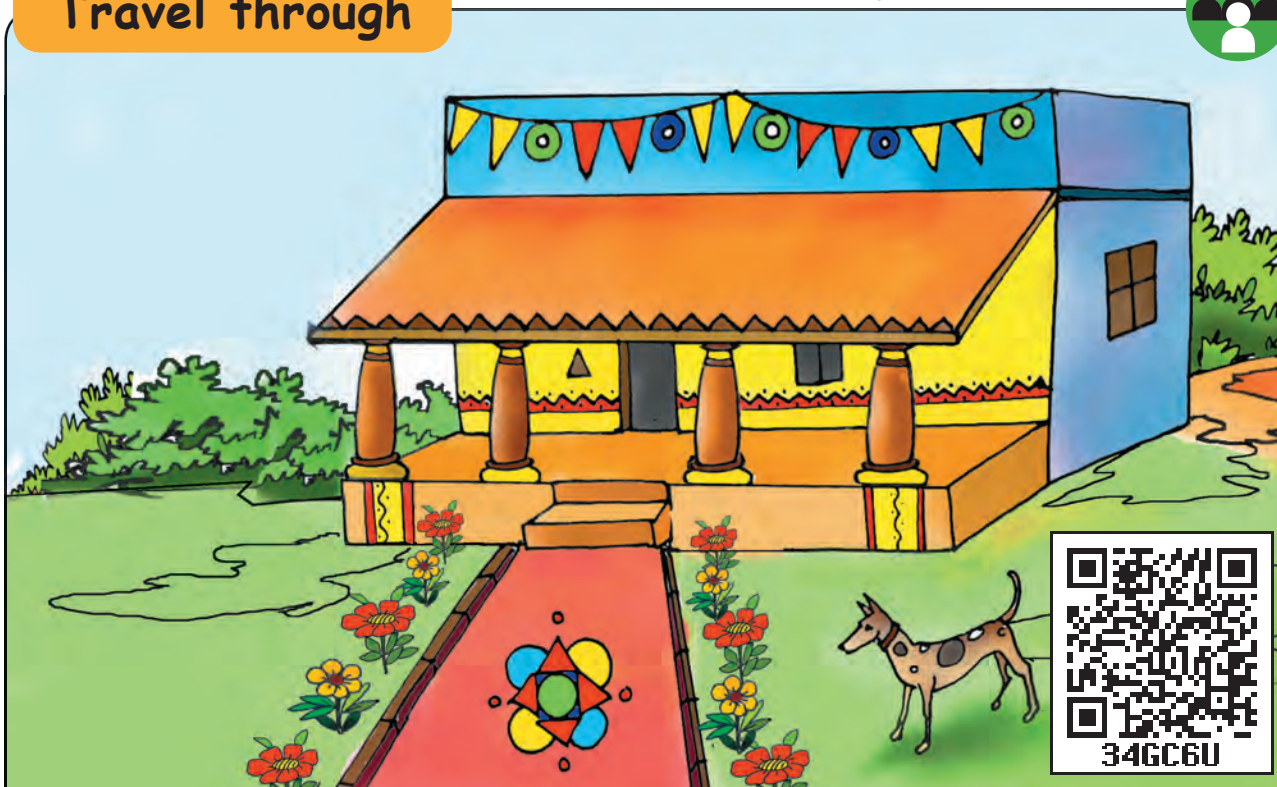
Patterns

Keywords

Body movements,
Patterns

3.1 Patterns in shapes

Travel through



Teacher encourages the children to observe the picture and ask some questions as given below.

1. Name the shapes that you could see in this picture.
2. Where and how these shapes are arranged?

Learn

Observe the patterns in shapes. Complete it.

Activity



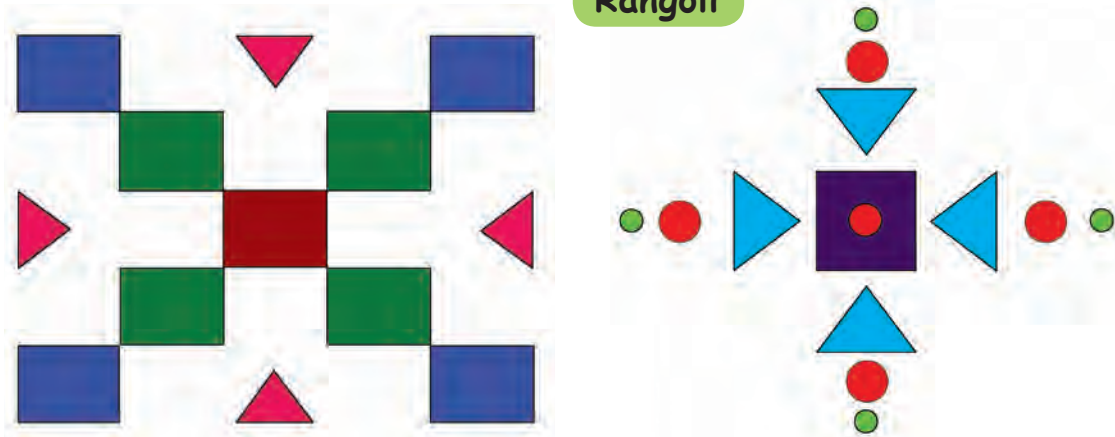
Decorate your class.

- Prepare similar shapes as given.
 - Cut out a long strip in a chart as shown below.
 - Make your own pattern by using the prepared shapes and strips.
- Use it to decorate your classroom with the help of the teacher.

Know more



Rangoli



Draw shapes in different pattern to make your own Rangoli.

Pleasure time



Match the similar pattern.



3.2 Patterns in body movements

Travel through

Body movements



Ma ma maah...
I can run; I can run

La la laah...
I can jump; I can jump

Oh oh oh...
I can swim; I can swim

Pa pa paah...
I can swing; I can swing

Hey hey hey...
I can do; I can do



Learn

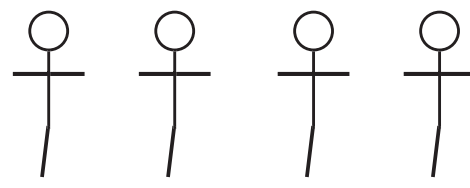
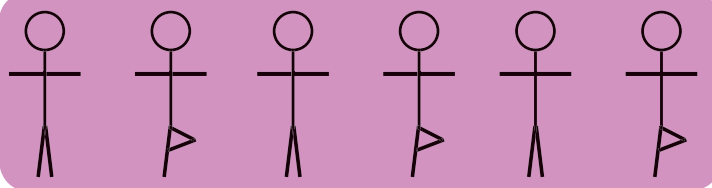
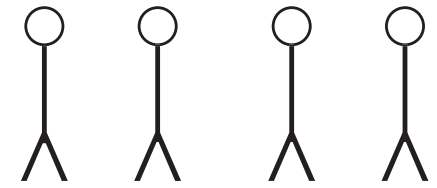
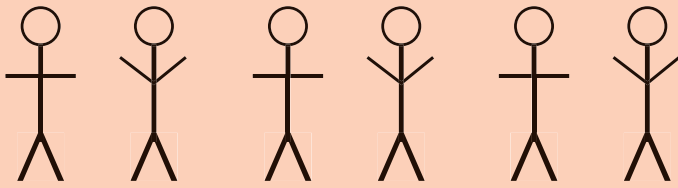
Observe the patterns in body movements.



Practice



Complete the patterns.



Game



Procedure:

- ❖ Ask the students to stand in a circle.
- ❖ If the teacher says '**small pot**', students keep their hands **close** to each other.
- ❖ When the teacher says '**big pot**', students keep their hands **wide**.
- ❖ One who does wrongly has to go out of the game.
- ❖ The student who stands till the end is the winner.



Try this



Do these exercises. Enjoy the pattern in it.
Make your own pattern.



Teacher's Note

Teacher makes the students to stand in a line with one arm distance. Then makes them to do the exercises. When teacher says the counting, students do the actions as given above. Let the children observe the patterns in their movements.

3.3 Patterns in numbers

Learn



Observe the numbers given below.



Write the numbers based on your observation.



Now, write the numbers in the Guavas in order as given above.



Write the numbers in the Pomegranates in order as given above.



Observe the above numbers. Is there any pattern in it?
Say what is that?

Practice



Complete the number patterns.

1	2			5			8	
1		5	7					
2	4							
5	4							1

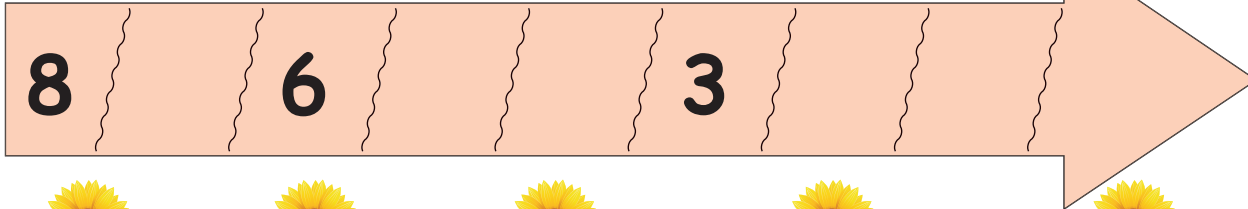


Pleasure time



Complete the number patterns.

1	2							
	4		8					



9		5		1
---	--	---	--	---



Unit 4 Measurements

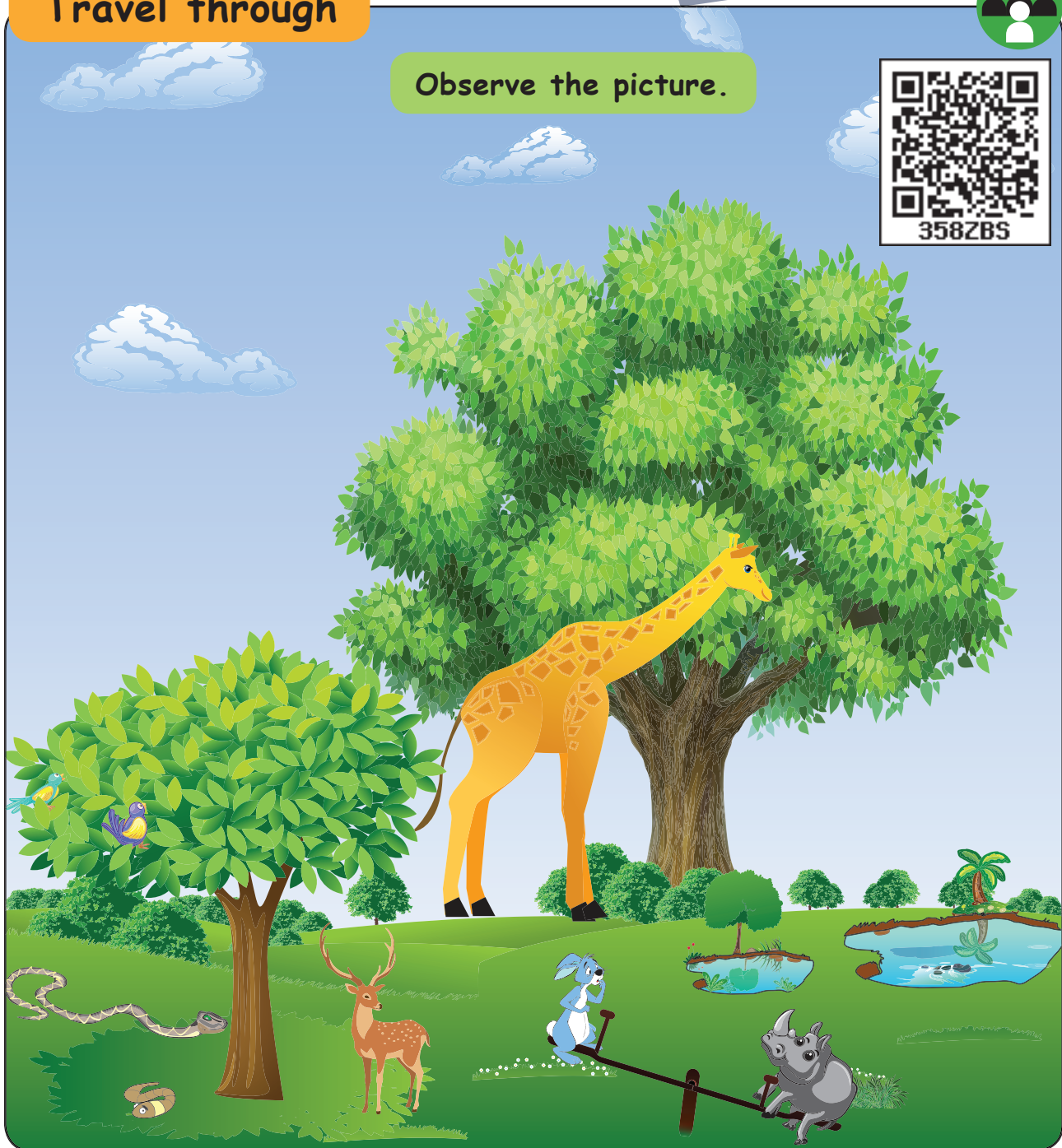
Keywords

Long - Short, Thick - Thin
Tall - Short, Heavy - Light
More - Less

4.1 Comparisons

Travel through

Observe the picture.



Teacher's Note

Teacher explains the picture for introducing the above keywords.

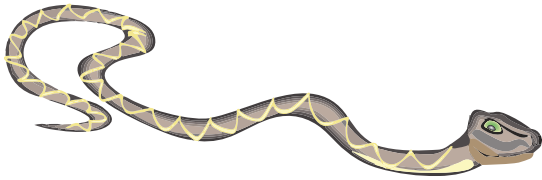




Learn



Long - Short



Long



Short

Practice



Colour the **Longer** one with ■ and the **Shorter** one with ■



Think like a Mathematician



Which stick will the mother use to get back the kite ? Why?

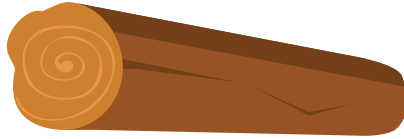




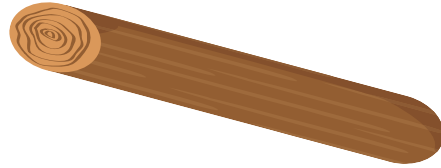
Learn



Thick - Thin



Thick



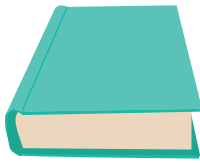
Thin

Practice



Tick (✓) the **thicker** book.

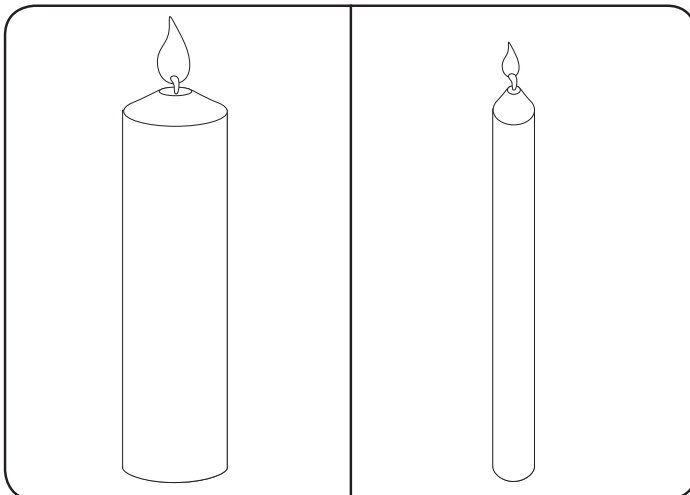
Tick (✓) the **thinner** tyre.

☐☐☐☐

Try this



Colour the **thicker** candle with
and the **thinner** candle with



Which candle will burn
for a long time? Why?





Learn



Tall - Short



Tall

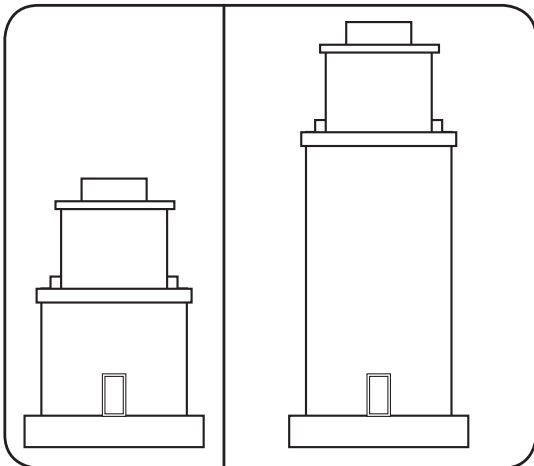


Short

Practice



Colour the **taller** building with 
and the **shorter** building with 

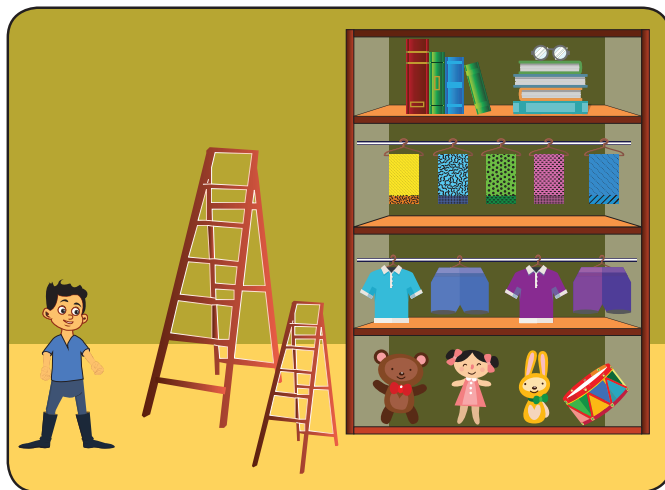


Which building will consume more colour? Why?

Think like a Mathematician



Which ladder will he use to pick the **red coloured book**? Why?

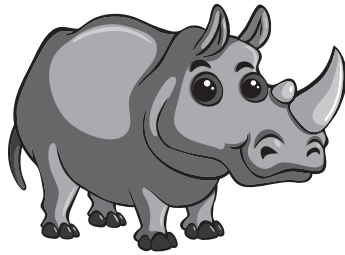




Learn



Heavy - Light



Heavy



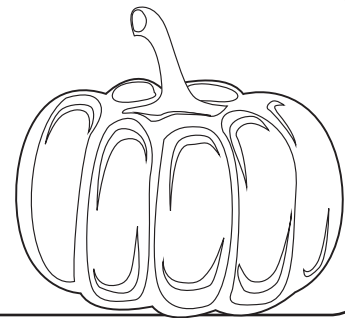
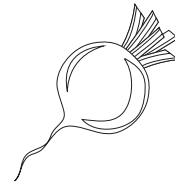
Light

Practice



Colour the **heavier** one with  and the **lighter** one with 

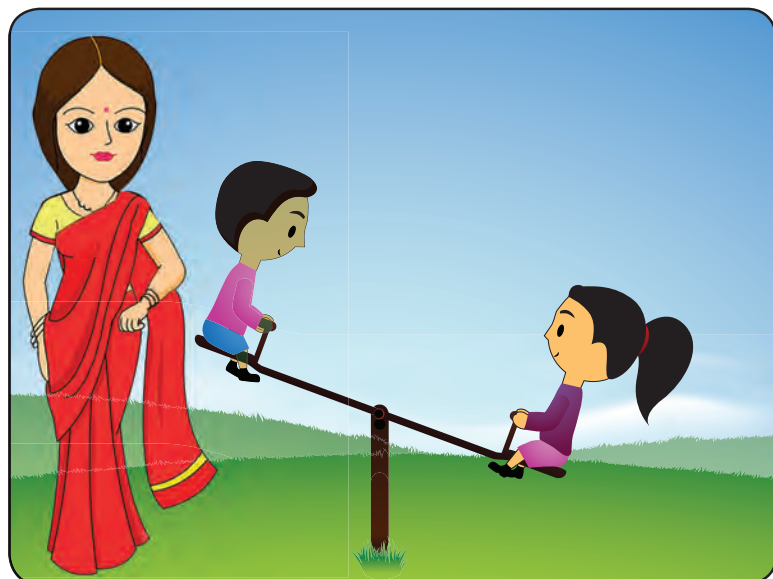
Can you suggest a pair of fruits for this concept?



Think like a Mathematician



If the mother sits in the place of the boy, what will happen? Why?

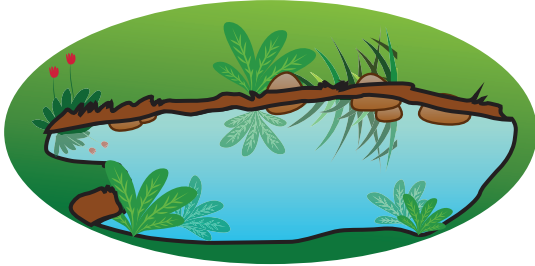




Learn



More - Less



More



Less

Practice



Tick (✓) the bottle that contains **less** water.

☐☐

Tick (✓) the container that can hold **more** water.

☐☐

Think like a Mathematician



Is it a right vessel to pour the full packet of milk? Why?



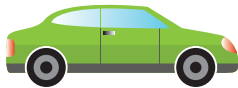
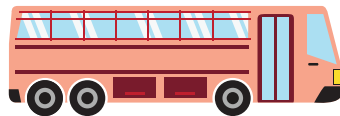


Learn

Ordering



Tick (✓) the longest vehicle.

☐☐☒

Tick (✓) the heaviest vegetable.

☒☐☐

Practice

Tick (✓) the shortest.

☐☐☐

Tick (✓) the tallest.

☐☐☐

Teacher's Note

Teacher can help students to develop the idea of ordering objects based on length, mass and height.



4.2 Measures



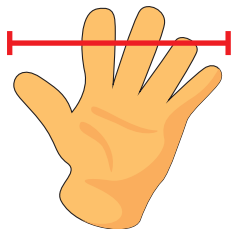
Keywords

Hand span, Cubit,
Foot span, Pace,
Length

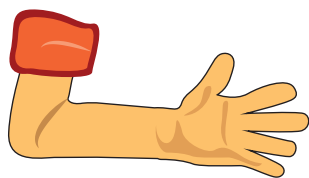
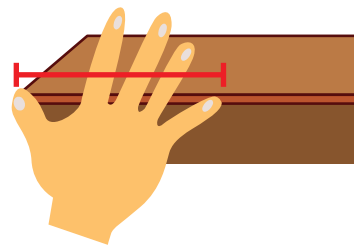
Travel through



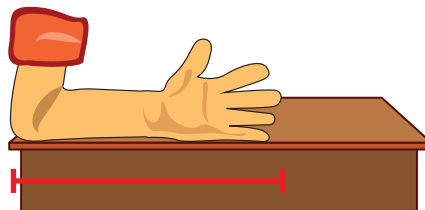
Learn



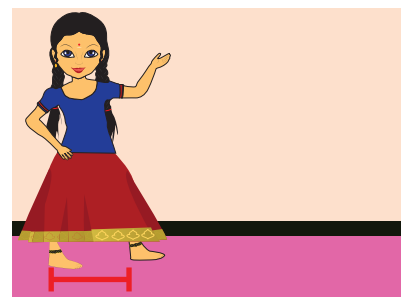
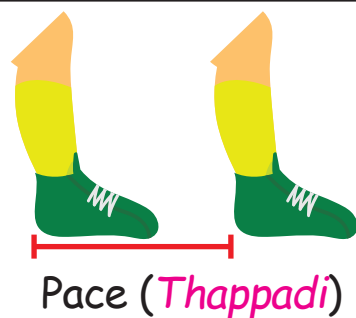
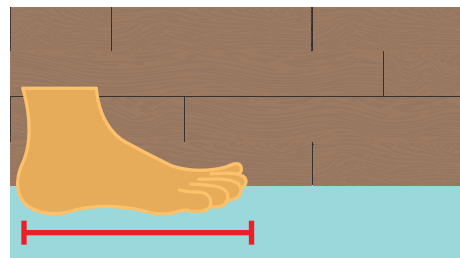
Handspan (*Saan*)



Cubit (*Muzham*)



Learn



Activity

Fill the table and compare



Object	Unit of Measure	Number of units in measuring the length by		
		Teacher	Me	My friend
Window	Hand span			
Table	Cubit			
Mat	Foot span			
Classroom	Pace			

Think like a Mathematician

Why do the lengths measured differ from one another?



Primary Mathematics – Class I (Term 2)

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