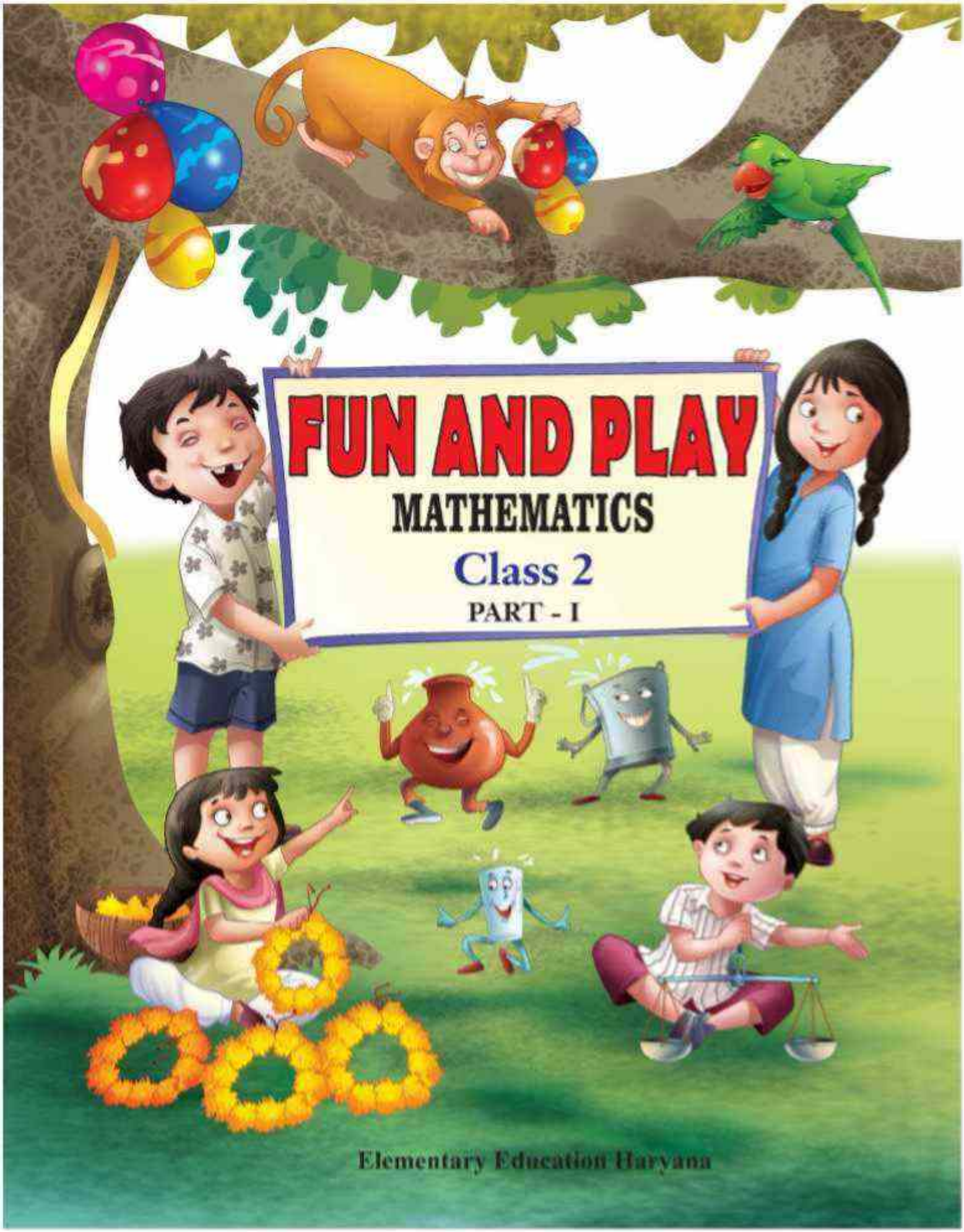
FUN AND PLAY
MATHEMATICS
Class 2
PART - I
Elementary Education Haryana

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Panchkula

For Teachers

According to National Curriculum Framework (2005) , the vision of Mathematics Teachers should be based on two key pillars – first, the children may feel the need to learn Mathematics ; second all the children can learn Mathematics. But usually, Mathematics as a subject is considered boring or less interesting. It is also believed that children face difficulty in learning Mathematics. Special care has been taken to avoid these prejudices about mathematics, These books are developed to create interest of children in Mathematics using contextual learning, giving challenge, scope for alternate algorithm, games and activities etc. Children will construct their knowledge by understanding Mathematical concepts in natural way on their own and can relate and experience them in their life outside the school.

Some important factors for Teaching and learning of Mathematics at primary level—

1. Learning Mathematics doesn't mean solving the mathematical sums by using standard methods mechanically, rather to use reasoning, thinking and to discover new methods.
2. Mathematics not only means cramming shapes, calculations, algorithms and laws, but also correlating different events and finding new ways through analysis.
3. Teaching-learning of Mathematics is directly related to achieving the important aim of helping children become independent and critical thinkers along with development of many other abilities.
4. One more objective of Teaching-Learning of Mathematics is developing an attitude so that the students can analyse their Mathematical experiences.
5. Children's experiences, discussions and explorations form the basis of their constructing Mathematical knowledge, therefore, there should be ample opportunities for the same in the classrooms.
6. Mistakes committed by students are the part of their individual learning and steps in acquiring knowledge. These mistakes should be used as steps to understand the children's thinking and should not be seen as problems.
7. The mistakes committed by them should not be dealt with by simply marking wrong or writing / telling the correct answers. Try to observe and analyse the child's reasoning and thinking used in their answers.

The role of a teacher is very important in teaching learning process of Mathematics. The content and approach used in this textbook helps the teacher significantly to play his role. Simultaneously, the proper use of the text book in the class for making Mathematics more interesting , depends on the teacher.

A suggested general sequence of activities to use this book most appropriately and interesting way—

- We should prepare a context such as activity, discussion, story etc. before starting the concept of any topic. For this some suggestions are given in the book.
- Any concept should not be dealt directly during activity, rather after doing activity, engage them in discussion for that concept. The important concluding points by children during discussion should be written on blackboard.
- Ample opportunities should be provided to the students for discussion, picture observation and understanding while working with the text-book – Encourage the students to express themselves.
- The teacher should make sure that all the students participate in activity or writing work or filling the tables, wherever given in the book.
- Provide ample opportunities to share their experiences. Motivate them to use and find out or relate concepts of Mathematics at their home, farm, market, games etc.

- Instructions for the teacher are given in the book. Teachers must read them. These instructions will help in conduction of all the activities.
- Some questions are given in the form of suggestions for discussion with the students. Prepare more questions for discussion with the students, sharing their experiences and for understanding of the concepts.
- Motivate children to frame questions.
- The teacher should be patient and should not tell or conclude himself. Let them think and struggle to face the challenge themselves, however, according to the situation increase or decrease the level of challenge.

Salient features of Mathematics text- book—

- Language used according to the level of the students.
- Learning by doing has been emphasized.
- The process followed is from concrete to semi concrete, semi concrete to abstract has been emphasised.
- Activities and games are included according to the interest and level of the students.
- Worksheet/Table is given after every activity and game so that the student's participation is ensured.
- There is use of contextual learning such as daily life experiences, stories, poems, picture stories, games and activities etc.
- Many opportunities to learn naturally and indirectly are provided and giving direct information to students is avoided.
- The illustrations are designed according to child's interest and surroundings which play an important role in teaching- learning process.
- The challenges are given according to the student's level so that the students proceed in teaching learning process by struggling with them.
- For peer learning, opportunities are given to the students to work in groups.
- For recapitulating the concepts learnt, problems at regular intervals in the book such as, Chutki's and Chatlu's Ke questions are given.
- Ample opportunities have been provided on the borders for learning and assessment.
- Suggestions for teachers are given in the book wherever required.
- Ample opportunities for group discussion with children are given so that they can express themselves and participate in teaching learning process.
- Open ended questions are given at many places in the book, which have more than one answer.
- Play money, number cards etc. are given at the end of the book should be cut and given to every child to do the activities. Children can play snakes and ladders game givan on back cover page.

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Director
State Council of Educational Research and Training
Haryana, GURUGRAM

Contents

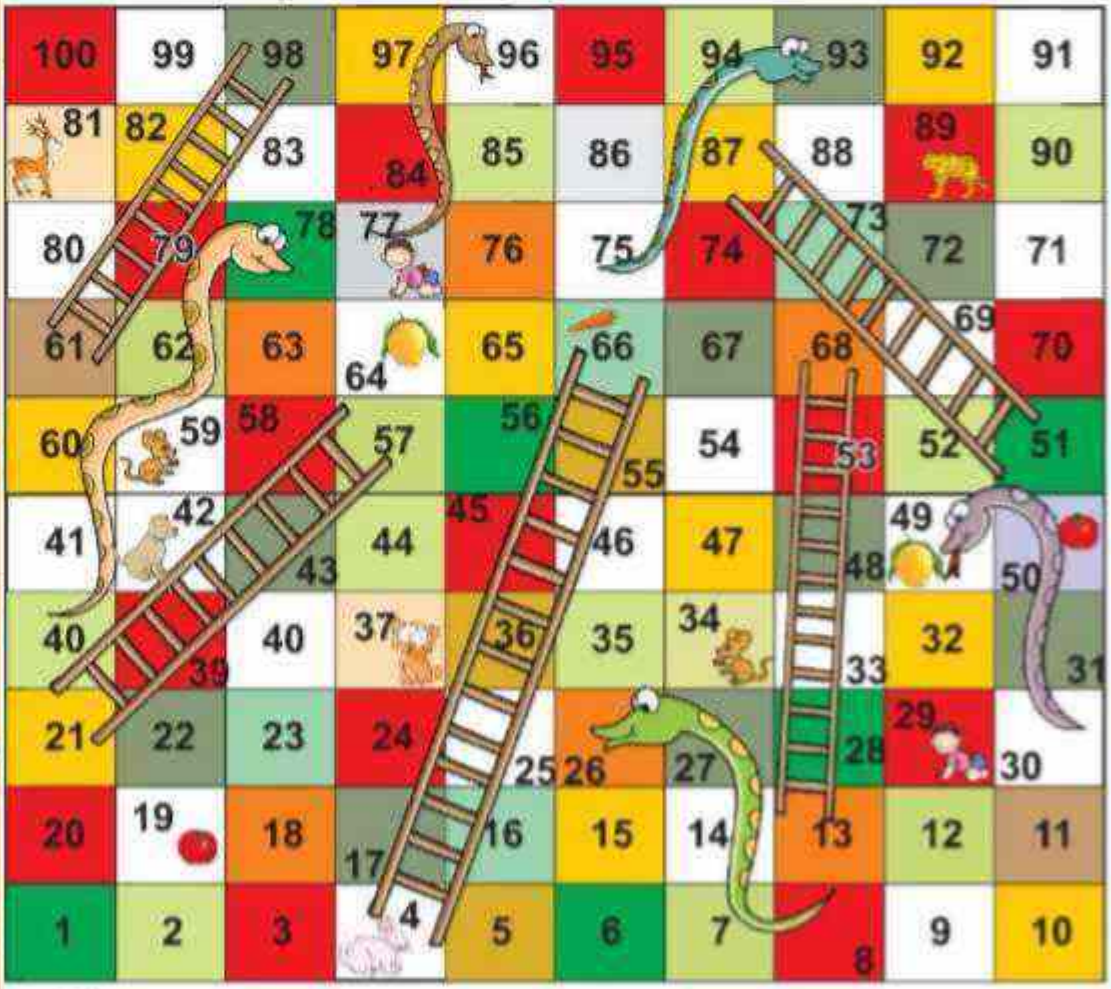
TLM are given in the end of the book, let children cut and use.

1

Play with Numbers

Snake and Ladder

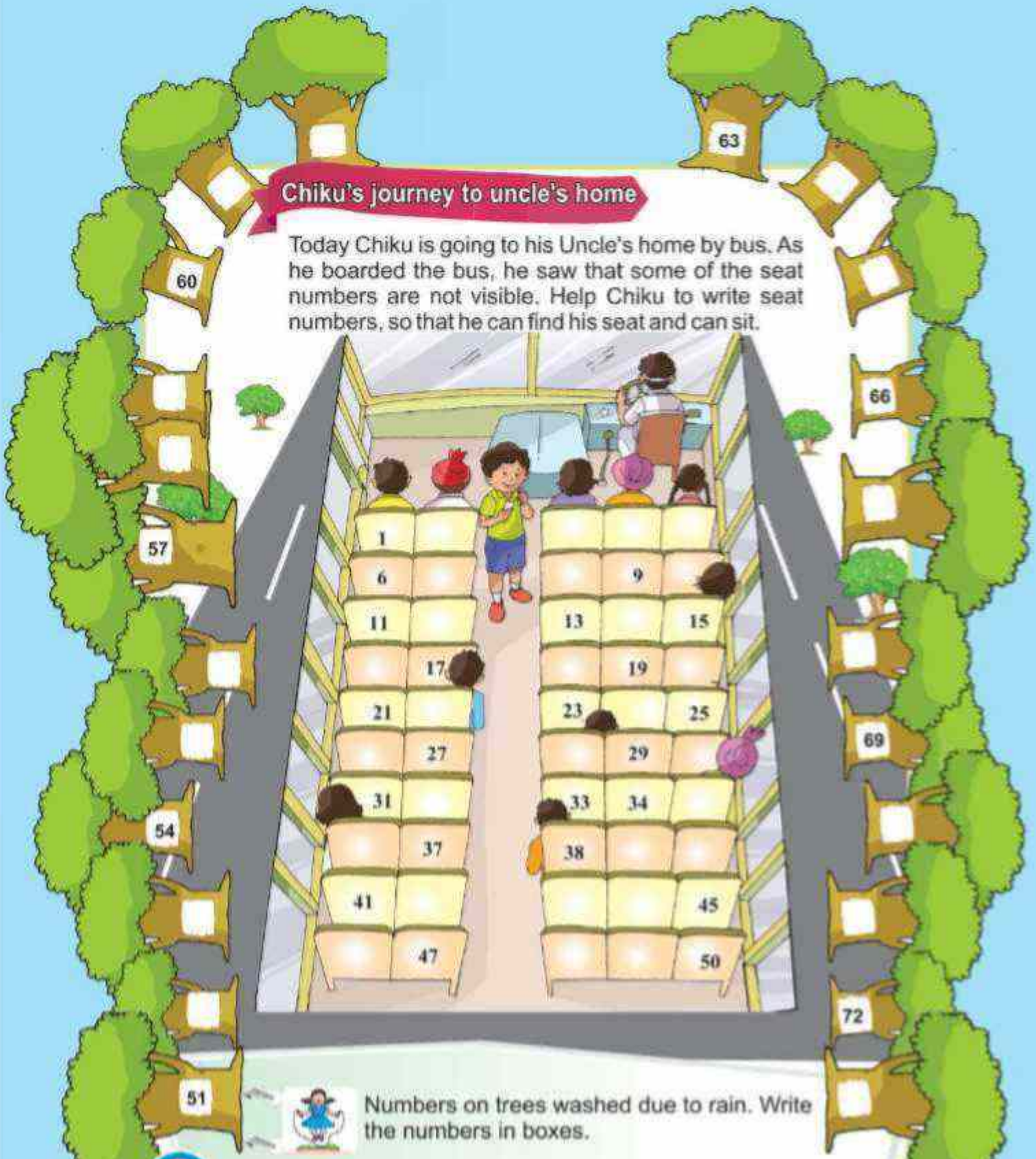
Throw the dice and go ahead. Start from 1 and reach at 100. See what comes in the way—



The aim of this activity is to encourage the children to speak, written numbers. Let the children play this game in pairs. After the game, discuss and ask such questions to students in which they have to speak the number e.g. - what came in your way first? Tell the numbers which are written in those boxes? Which are the numbers on which you don't want to reach? Which number boxes, the rat has to cross to reach at tomato? Divide the students in two groups and encourage them to ask such questions from each other in which child speaks the numbers. Discuss, one child gets the ladder again and again, and other doesn't get as many ladders. Can second child reach at 100 first and why?

Chiku's journey to uncle's home

Today Chiku is going to his Uncle's home by bus. As he boarded the bus, he saw that some of the seat numbers are not visible. Help Chiku to write seat numbers, so that he can find his seat and can sit.



Numbers on trees washed due to rain. Write the numbers in boxes.

Dice Game

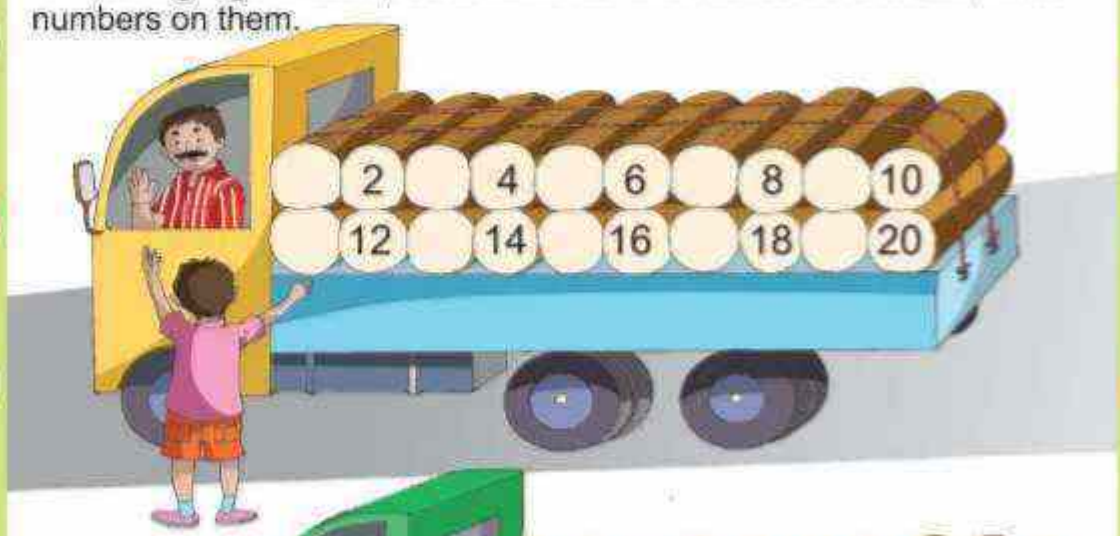
What is to be done in the game.

- Write missing numbers. You can play it like ludo and have to reach 100 first.
- Fill red colour in the 7th box after 59.
- Fill green colour in every fifth box after 54.
- How many total green boxes?
- Fill blue colour in box for 62. Now fill yellow after leaving two boxes.
- How many coloured boxes are there?

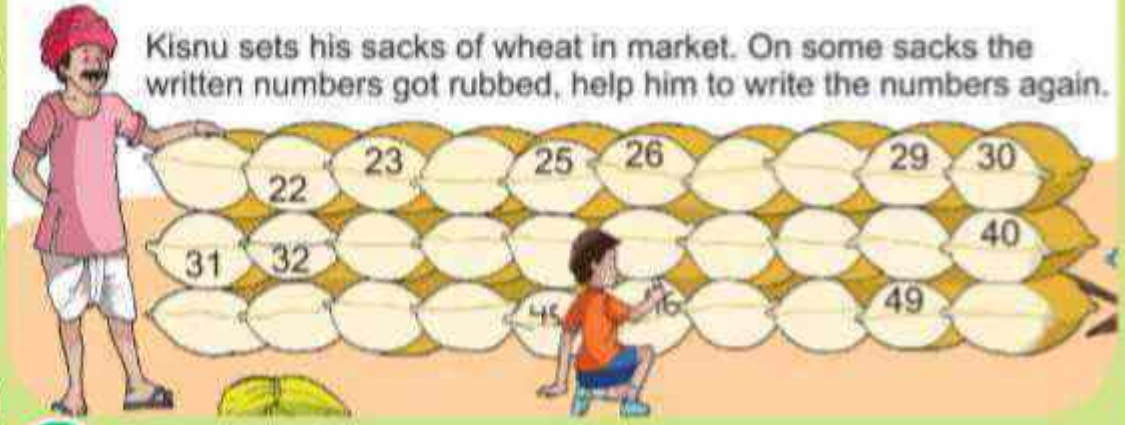
Discuss with students which boxes are filled with blue colour?

Nothing should get missed

On loading logs in truck, some numbers are washed due to rain, write numbers on them.



Kisnu sets his sacks of wheat in market. On some sacks the written numbers got rubbed, help him to write the numbers again.



86

88

Let us write numbers rubbed on the trees.

Join Dots

Bhuru is hungry. Join dots in order and find what is hidden.

82

93

78

74

Let us count from 1 to 25 on the way to help Chunnu and Munnu to cross the pond.

Discuss—How many times digit 3 comes in numbers from 1 to 100? Make more questions e.g. How many times 9 comes in numbers 51 to 100 or How many times 2 comes in numbers from 1 to 25 etc.

2

What is Long, what is Round?

What is alike?

Keep different objects such as bottle, book, chalk, eraser, pencil etc on your table. Let children sit in groups. In each group, provide different objects such as ball in one group, chalk box in second, carrot in the third, pipe in fourth. Now ask students to bring different objects from teacher's table which look alike to the object of their group. List the objects collected by students on the blackboard. Discuss in class and encourage students to come up and tell names of more of such objects. Also you can interchange the objects among groups and ask to name more of such objects.

Encircle using

Blue colour on objects like ball

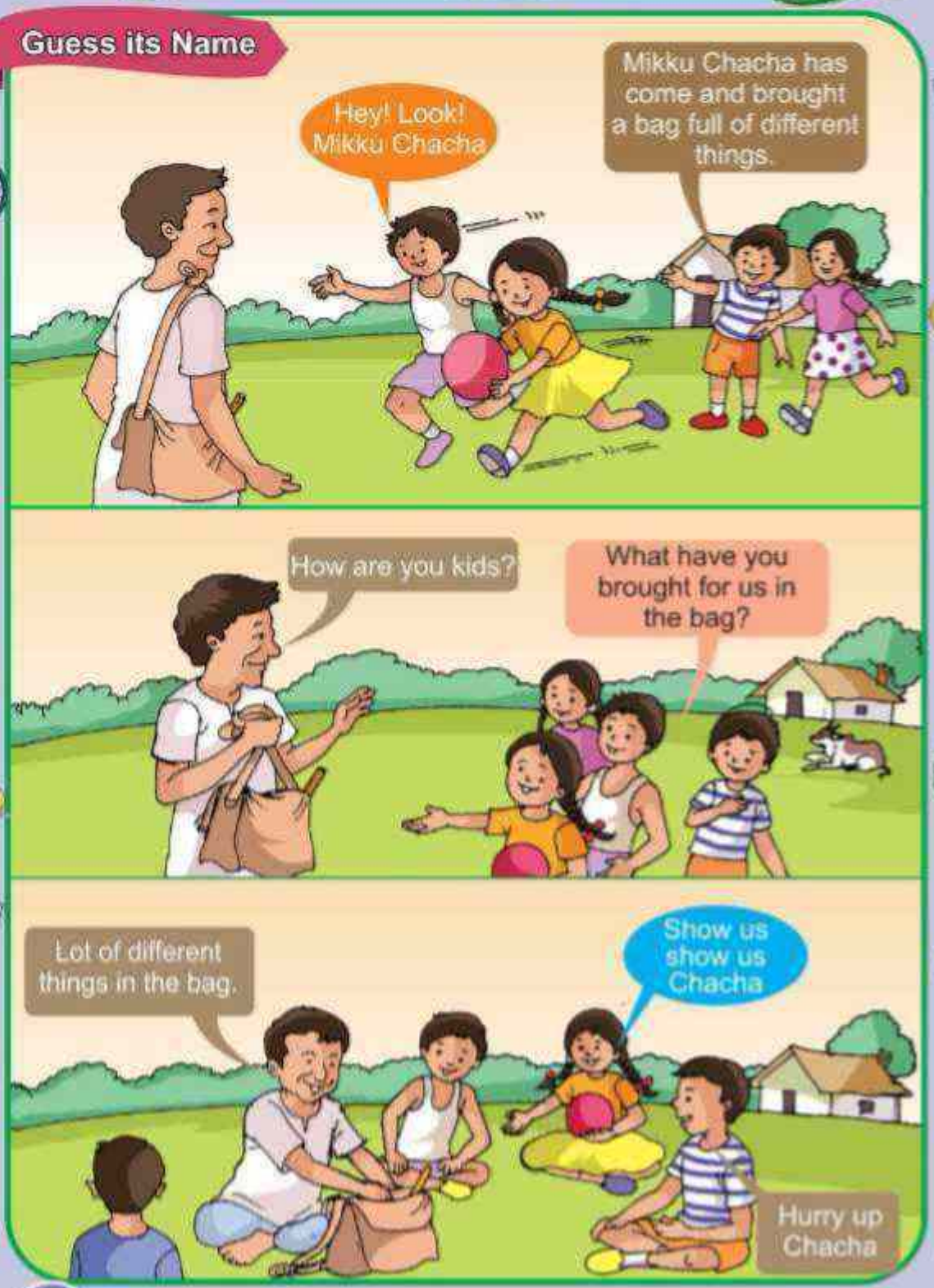
Green colour on objects like box

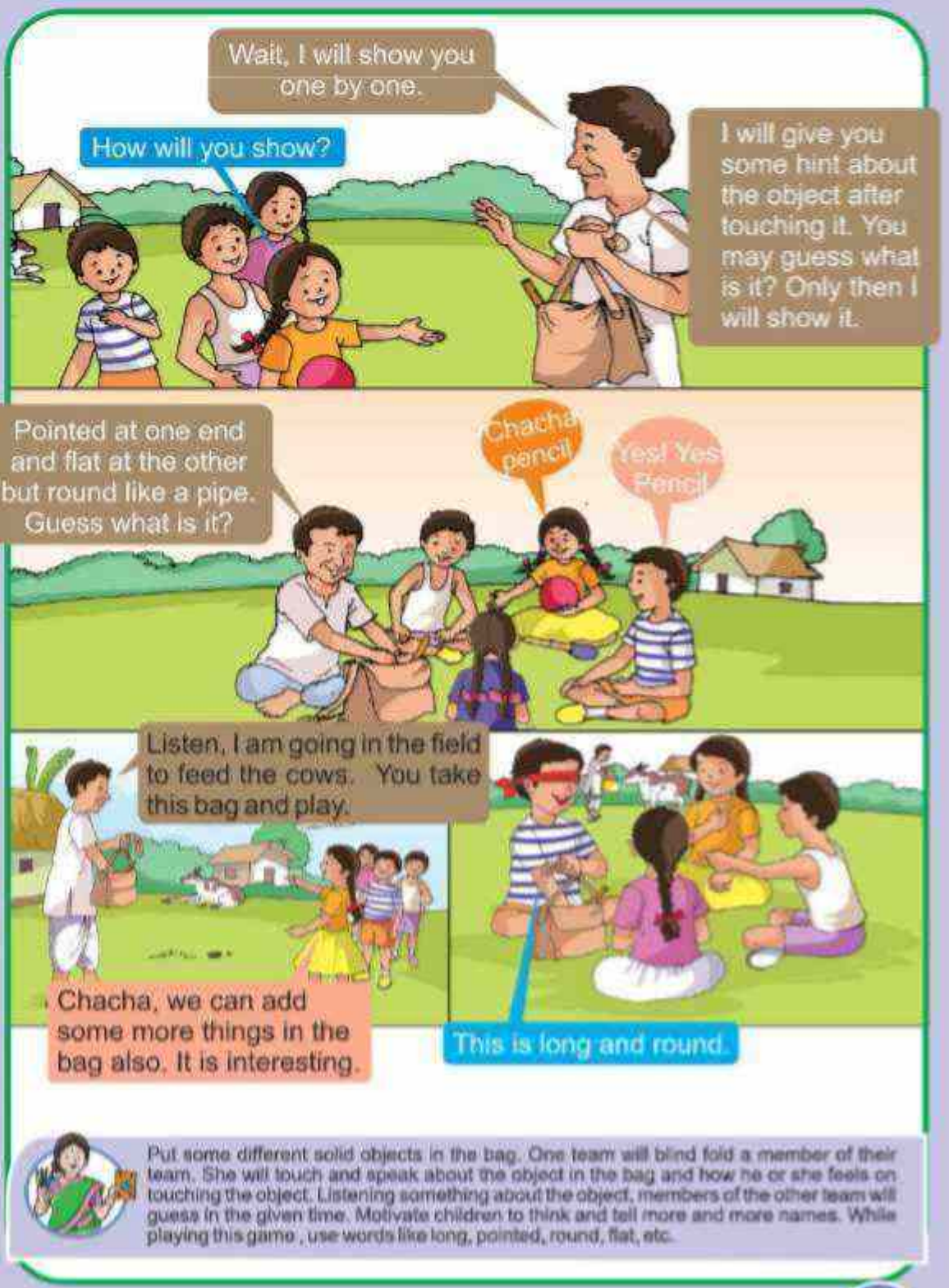
Red colour on objects like carrot

Yellow colour on objects like pipe

Let the students observe picture and talk about the objects which look similar, ask to name them also. Students can sort them in different ways according to colour, shape etc.

Guess its Name





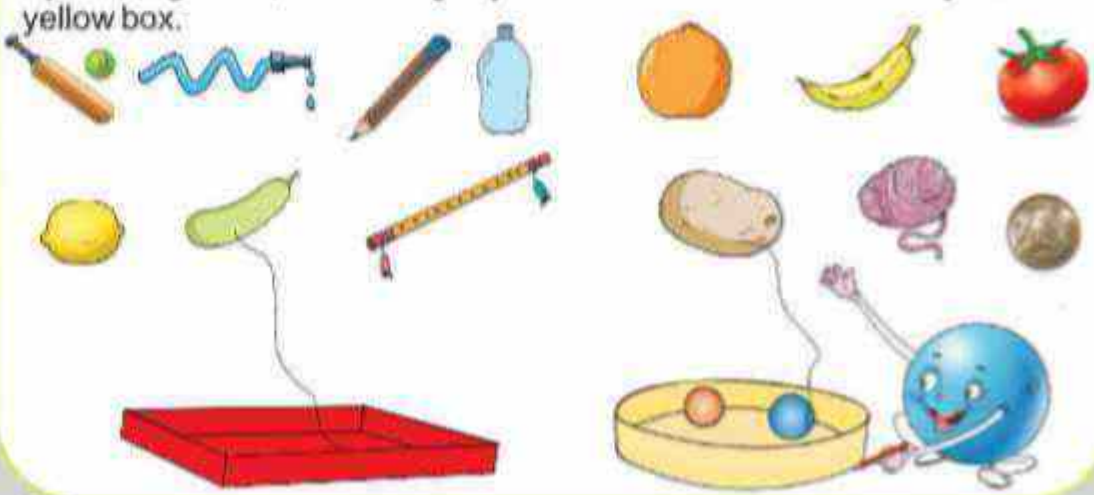
Colour and take it forward

Put some different solid objects in the bag. One team will blind fold a member of their team. She will touch and speak about the object in the bag and how he or she feels on touching the object. Listening something about the object, members of the other team will guess in the given time. Motivate children to think and tell more and more names. While playing this game , use words like long, pointed, round, flat, etc.

Hurry up ! Be Quick !

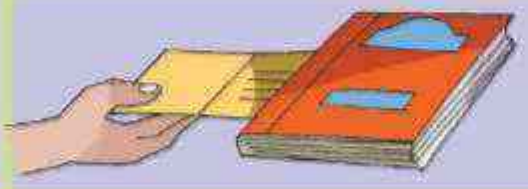
And in this way, the game goes on. You also play this game in your class. One by one name a long and a round object. Do not repeat names of things which others have already spoken.

By drawing a line, attach long objects with red box and round objects with yellow box.



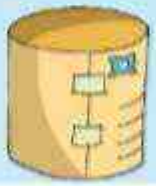
How much strong is a postcard ?

Hold a postcard from one corner. If you keep a book on it, can it hold the book?



Now try this.

1. Roll a postcard to make a pipe.



2 Use tape to stick the ends together.

3 Put a book on it. Does it hold it? See how many books it can hold.

How many books , pipe made by your postcard ,can hold ?

.....

Take it forward

What rolls, What slides

Look at the picture. Children are rolling and sliding different things.

There are things which can roll and some which can slide only.
There are things which can both roll and slide.

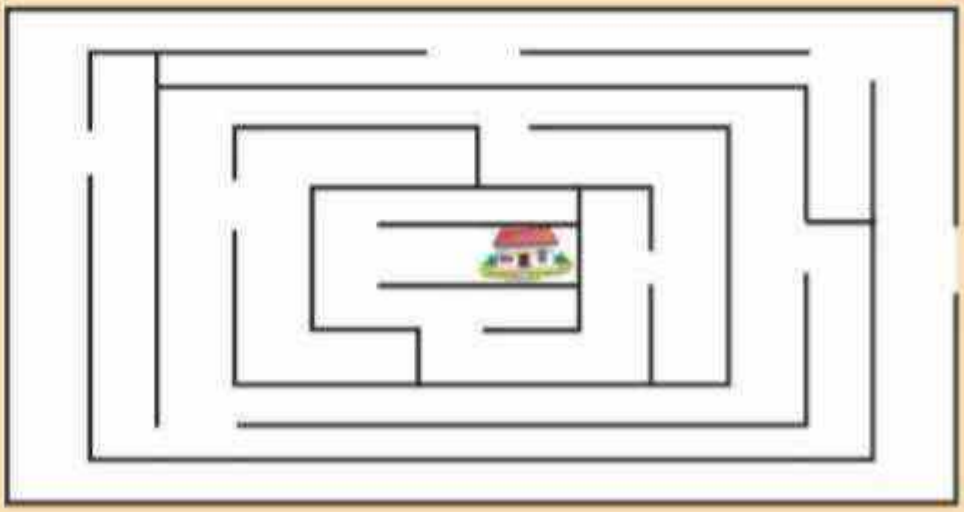
Let children observe the picture. Discuss with them, which things are rolling and which are sliding in the picture? Let the students learn by experiencing solid objects with one kind of surface roll and the other kind of surfaces, slide. Ask about their similarities and differences, for example, objects with edges, corners, smooth surfaces, rough surfaces etc. roll or slide. Start a discussion in the class on things in their environment which can roll or slide or both.

Let us look things around us and fill the table given below.

Things which roll	Things which slide	Things which both roll and slide
Ball 	Chalk box 	Coin 

Chutki's Question

Help and take Chutki to her home and also let her go out from different path.



Keep things, make Tower

Let the students collect different objects such as different kinds of pebbles, boxes, empty match boxes, balls, erasers etc. Ask students to make a tower using these objects in groups.

You also try it.

Make your tower using different things like only matchboxes or only tins. Can a tower be made using balls only? Check it!

Now make tower by mixing different things like shoe boxes and tins together, or balls and matchboxes together.

Your tallest tower was made by using. .....

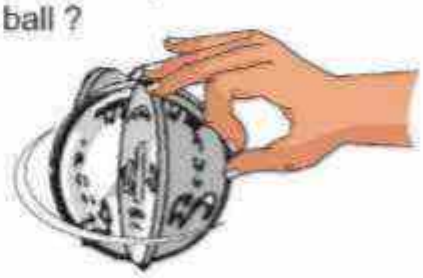
Start a discussion in the class - Which shapes can be stacked over one another and which cannot? Encourage children to check and learn that which objects have flat surfaces or which do not have flat surfaces. Disuses how different things like soaps, tea boxes, tin etc. are stacked in a shop.

Coin play

Try doing these with your coin.

- Hold the coin like this.

- Make the coin spin. Does it look like a ball ?



- Does a coin roll? Does it slide? Try this.

- Can you try a ₹ 1 coin stand like this ?

Try doing the same using a ₹ 2 coin and a ₹ 5 coin.

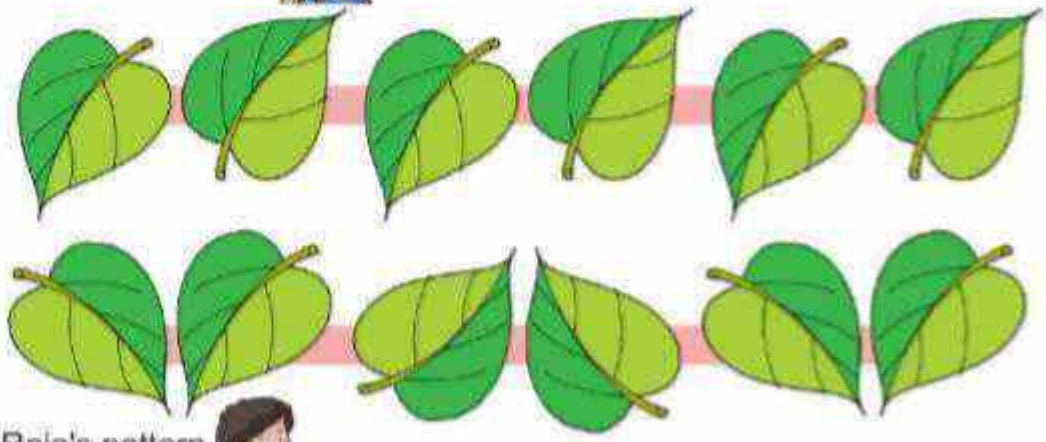
Chutki's Question.

What are alike? Fill yellow colour in the boxes with alike pictures.

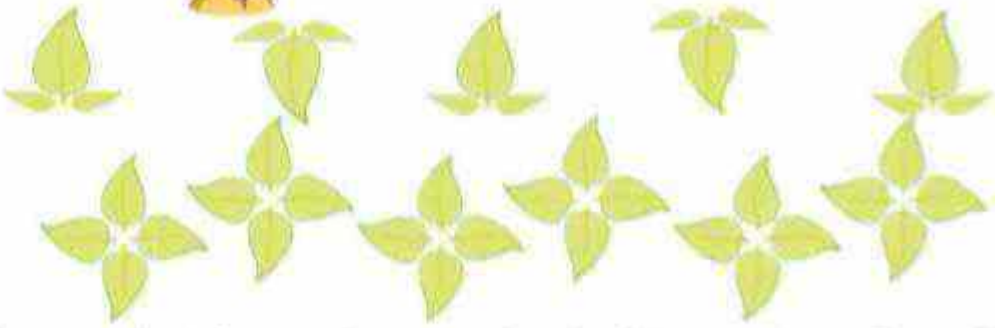
Rina, Rahima and Raja are making some patterns with leaves.

Rina made pattern like this.

Rahima's Pattern.



Raja's pattern



Now you also take some leaves and make different patterns. Try making patterns with matchsticks and pebbles also.

Take it forward

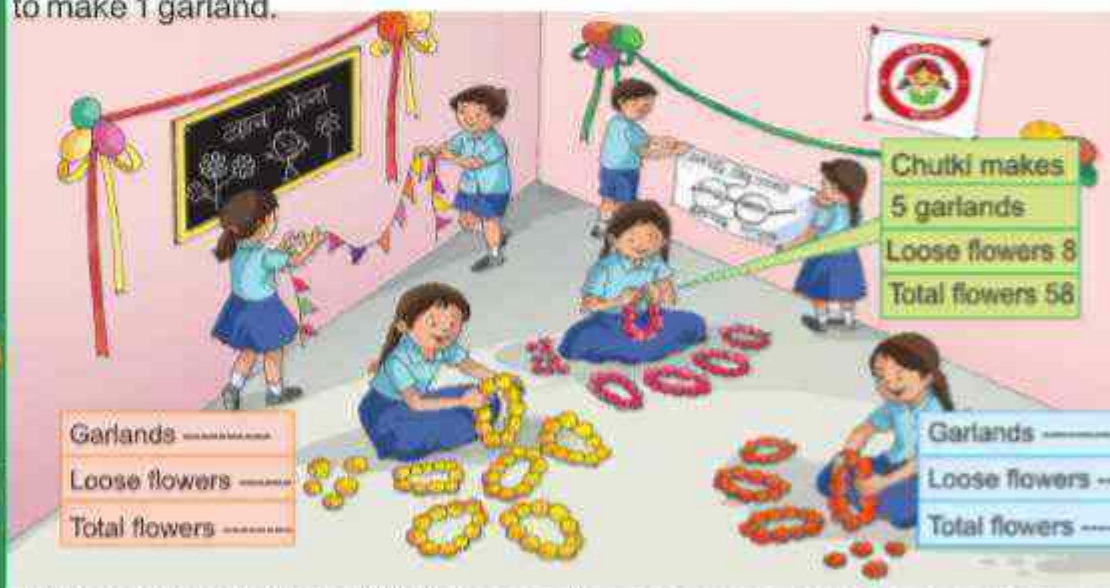
Counting in Tens

3

F7F5X2

Come, Let us decorate our school

Today, Balmela is organised in Chutki's school and all students are decorating their classes. Chutki enjoys making garlands. She and her friends are making flower garlands to decorate the class. They are using 10 flowers to make 1 garland.



How many garlands of 10 flowers each, can you make using 21 flowers? Draw them in the space below.

Make two groups of students, first group calls out the number of flowers and write it on blackboard. Second group will tell the number of garlands which can be made and number of flowers left. In the same way, second group will speak number of flowers and write it on blackboard other group will tell the number of garlands made and leftover flowers, for example, for 32 flowers, 3 garlands and two flowers left.

Before starting the lesson, let the children make bundles of ten with concrete material with a challenge as who makes more bundles in given time. How many zeroes are there in numbers from 1 to 100?

Before doing the exercises given below, ask children to represent numbers by making bundles of 10 with the help of materials such as sticks or beads. Help them link these concrete objects to written symbols and oral names of the numbers. Let children count drops given in border without making groups and later with groups on left side and right side separately. Which is better?

Let us find!

Chutki's father collects sticks from jungle and sell them in the market.

He uses 10 sticks to make 1 bundle.

3 bundles have ..... sticks.

- Now, how many sticks in all are these?

  ..... sticks in all.

4 bundles would have ..... sticks.

5 bundles would have ..... sticks.

Can we make more bundles using sticks in picture? .....

How many bundles now?.....

Total sticks .....

Chickens and The Clever Fox

Chutki farmer has many chickens in her farm. One day a clever fox saw these naughty chickens playing around.

From that day, she started stealing and eating chickens every day. Chutki came to know about it. She asked the fox.

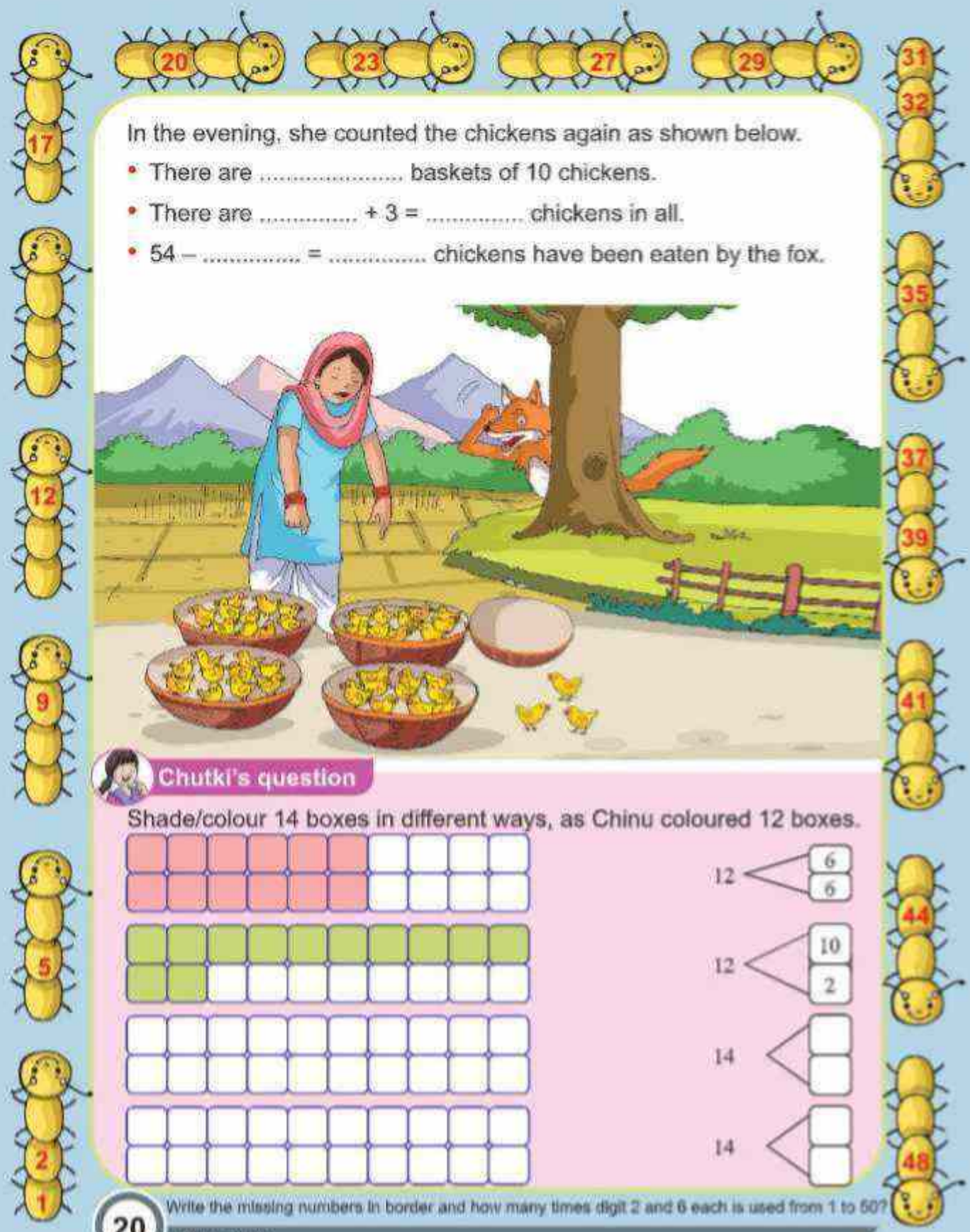
Chutki thought of counting her chickens every morning and evening. But the chickens kept moving around here and there. She said—I will put 10 chickens in one basket and count them. If I find any of them missing, then I will give the fox a tight slap.

- How many baskets of 10 chickens are there?

  .....

- How many chickens are there in all? 50 + 4 = ...

How many baskets will be used for chickens in border? ☐



In the evening, she counted the chickens again as shown below.

- There are ..... baskets of 10 chickens.
- There are ..... + 3 = ... chickens in all.
- 54 – ..... = ... chickens have been eaten by the fox.

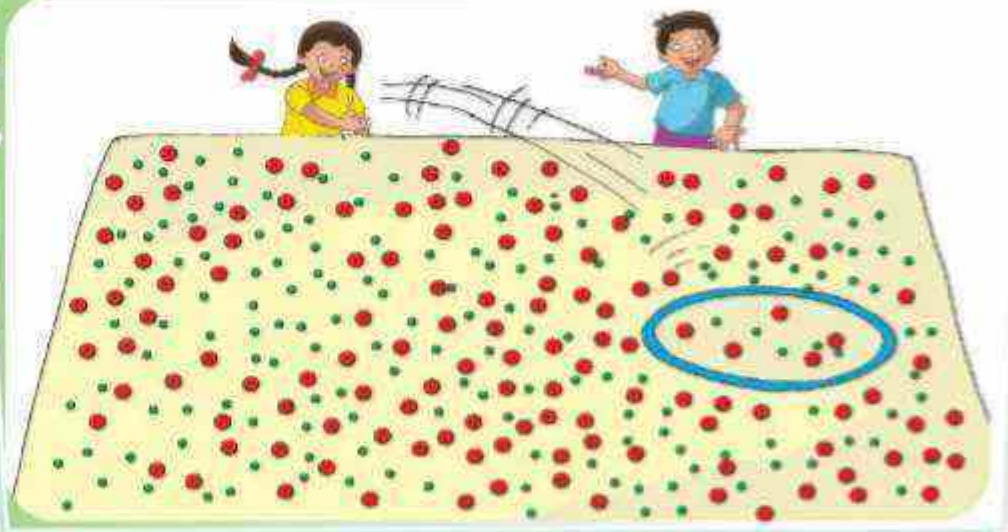
Chutki's question

Shade/colour 14 boxes in different ways, as Chinu coloured 12 boxes.

Write the missing numbers in border and how many times digit 2 and 6 each is used from 1 to 50?

Bangle Throw Game

Chutki and Chintu are playing a bangle game. Chutki has thrown the bangle on the dots.



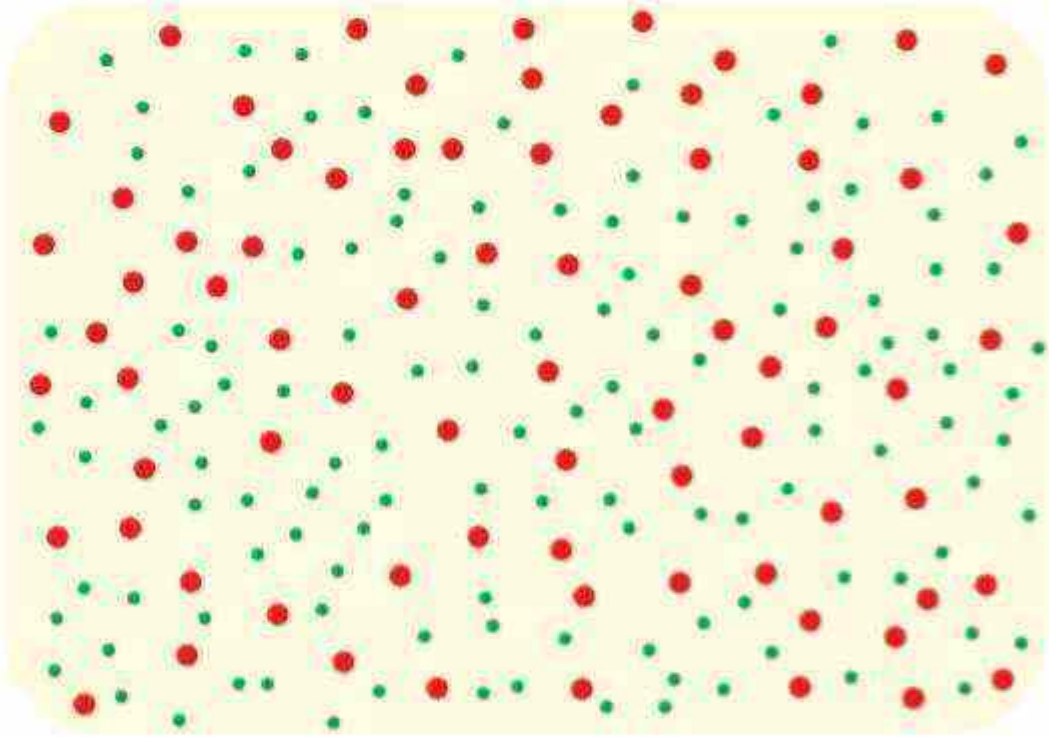
Each big red dot is equal to 10 points. Each small green dot is equal to 1 point. The dots inside the bangle are—

Dots		
Points	50	5

So, Chutki has got 55 points.

They throw the bangle twice. Here are their points.

Throw	Chutki's dots	Chutki's points	Chintu's dots	Chintu's points	Winner
First		55			
Second					



You can play this game with your friend using the board above. Write your points for each throw.

Throw	My points	My friend's points	Winner
First			
Second			
Third			
Fourth			
Fifth			
Sixth			

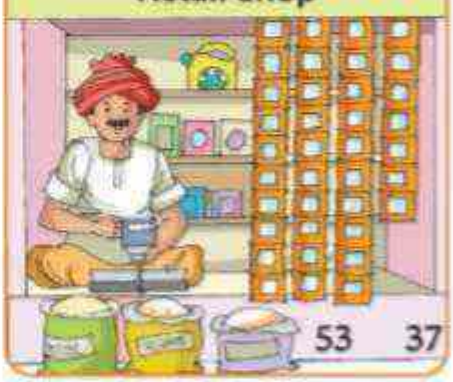
This game can also be played by making dots on the floor or board. It can also be played by making two teams where one will speak a number say 35, other team will make that many red and green dots as here it would be

How many things in the shop?

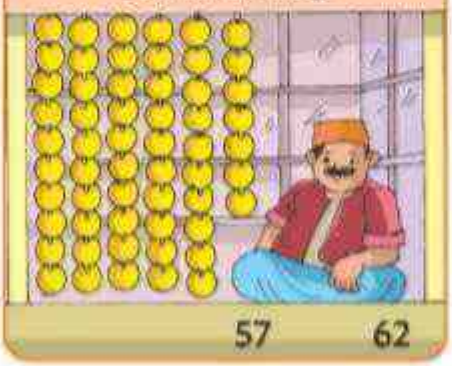
Some things are hanging at the shop. How many are these? Mark a circle on the correct numbers.

Grocery store

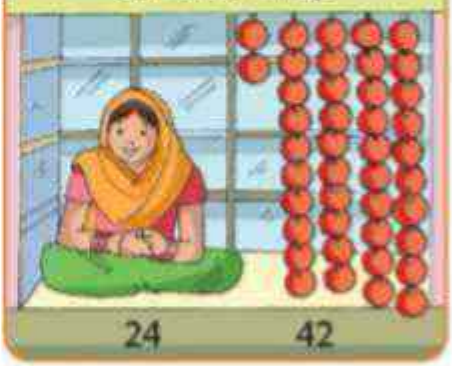
Retail shop



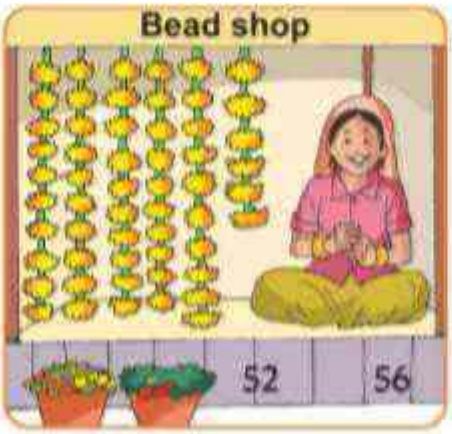
Garland shop



Garland shop



Bead shop

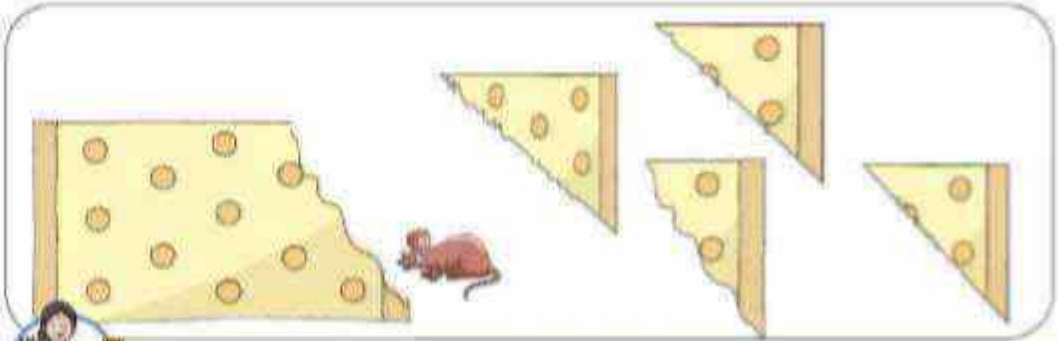


Bead shop

Chutki wrote counting on the snake. Make corrections whereever she made mistake.

Chutki's question

Look at the picture and help Binni in matching which piece is of the same pattern.



Some mistake are on border also. Correct them.

Cleanliness Day

Let us clean our school today. For this let us make teams of 10 students each.

Our team will do the best! Here we go! Rub and Scrub!

The number of students in all the classes are:

Class 1	20
Class 2	23
Class 3	26
Class 4	45
Class 5	35

- How many teams will be there in each class? How many students will be left? Write here.

Class	How many students?	How many teams?	Students left
Class 1	20		
Class 2	23		
Class 3	26		
Class 4	45		
Class 5	36		

- How many students are left in all? .....
- How many more teams can be made with all these students left? .....

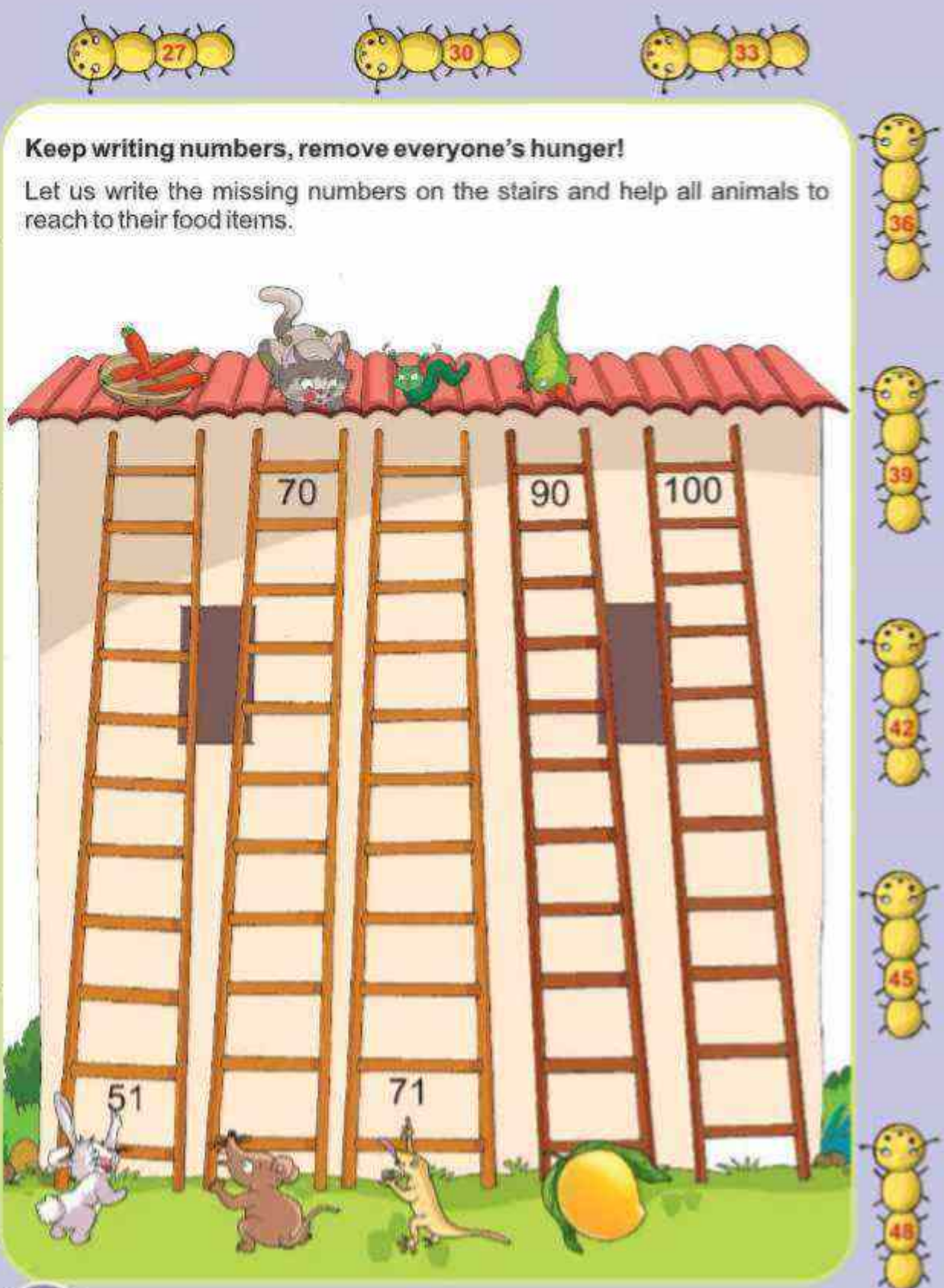
Now make a team of 10-10 children in your school also and complete the table.

Class	How many students?	How many teams?	Students left
Class 1			
Class 2			
Class 3			
Class 4			
Class 5			

If the number of children in classes is less than 10, then two or more classes can be clubbed together to make teams. Let children fill this table by themselves. Play game on the border, making two teams. One team will speak a number and other team will circle that many dots by considering big dot for 10 and small dot for 1.

Keep writing numbers, remove everyone's hunger!

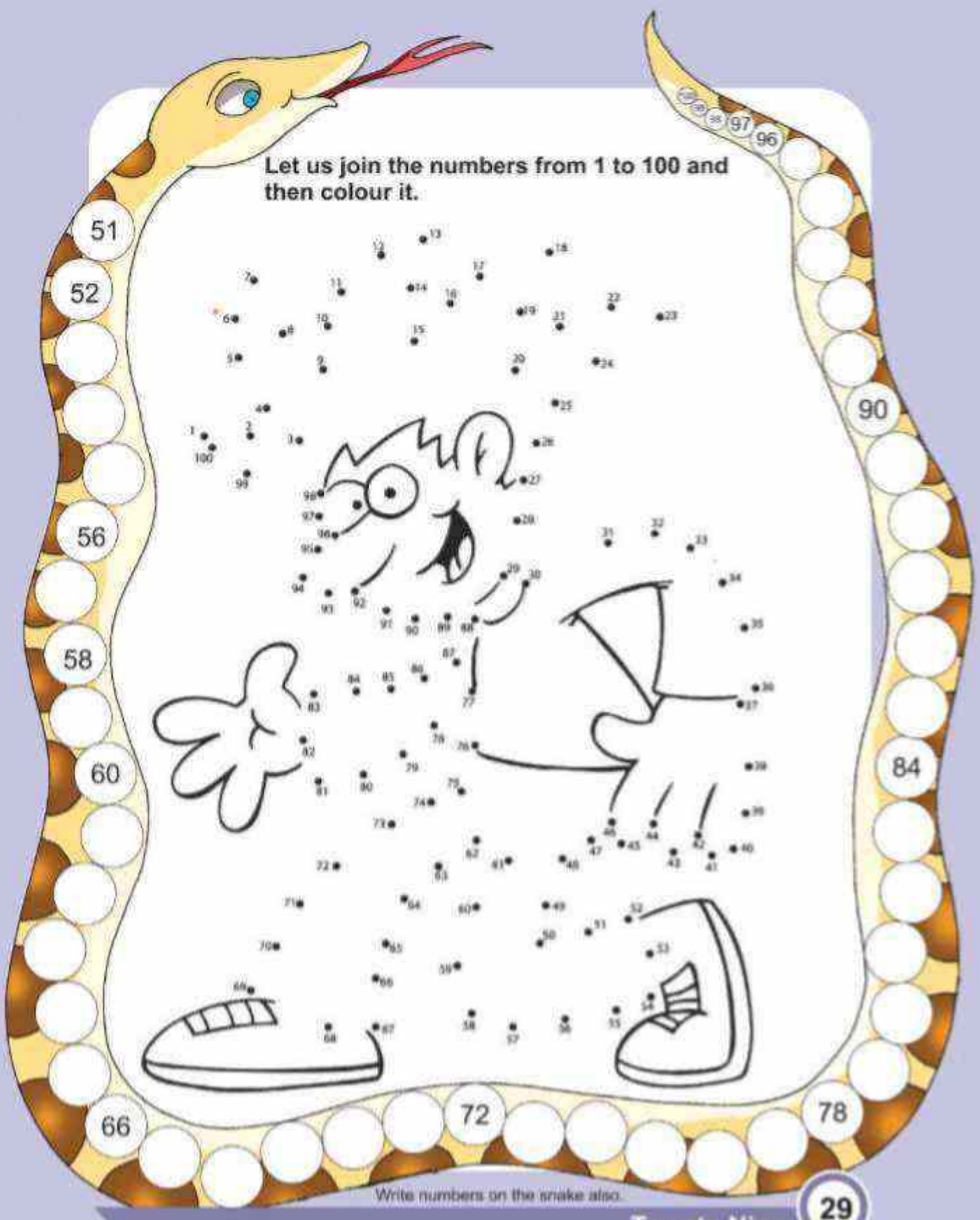
Let us write the missing numbers on the stairs and help all animals to reach to their food items.



Keep writing numbers, remove everyone's hunger!

Let us write the missing numbers on the stairs and help all animals to reach to their food items.

Let us join the numbers from 1 to 100 and then colour it.



Write numbers on the snake also.

Game of estimation

Let the children estimate number of dots in each part on border and then check by counting.

Mark a circle on the correct answer.

Number of teeth in your mouth 

More than 20

Less than 20

Number of seeds in orange 

More than 50

Less than 50

Number of matchsticks in matchbox 

More than 30

Less than 30

Number of pencils in your class 

More than 40

Less than 40

Number of spokes in wheel of bicycle 

More than 20

Less than 20

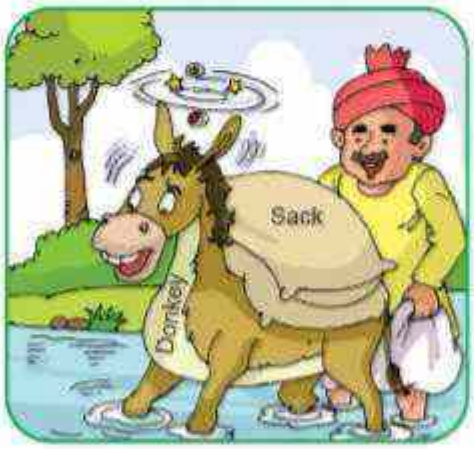
Estimate number of dots of different colour in border.

4

How Much You Can Carry?

The Clever Donkey and His Heavy Sack

Sandeep has a donkey. It carries sacks full of salt on its back. On the way to the market, they have to cross a river. One day, while crossing the river, the donkey slipped and fell into the river. When it got up, the sacks were felt very light.



Guess why the sacks were felt lighter? The donkey was very happy. This also gave it an idea. Next day, while crossing the river, the clever donkey decided to take a dip. This time Sandeep understood the donkey's trick.

Next day Sandeep put sacks of woollen cloth in place of salt.

Now, what would happen to the donkey when it dipped into the river? Why?

Ask children to name the items which they can carry and which items they can not carry, but their parents can carry.

Heavier or Lighter

Children in groups of two will estimate whose bag is heavier? Whose bottle is heavier? Discuss, how did they know it ?

• Now let the children sit or stand in a circle. Call any two of them. Provide each of them with three or four books in one hand and three or four pencils in the other. Discuss and see whose and which of the two hand comes down first. Perform it in the form of an activity and increase or decrease the number of books as per children's capacity.

Let's make our own balance.

Discuss with children about what different things are sold by vegetable seller and fruit seller near their houses? Bring their attention towards beam balance. What things their parents buy? How do hawkers weigh things?

Procedure to make a Beam Balance.

- Take two bowls of plastic.

- In each of them, make three holes at equal distance.

- Take 6 equal pieces of thread.

- Put the thread in each hole of the bowl. Make sure that after putting the thread in the hole, the length of each thread remains the same.

- Take a stick of length greater than the length of each of the thread. Tie the threads of the bowls to the corners of the stick.

- Now tieing a thread in the middle portion of the stick, give it a shape of a beam balance. Now your beam balance is ready.

Balance play

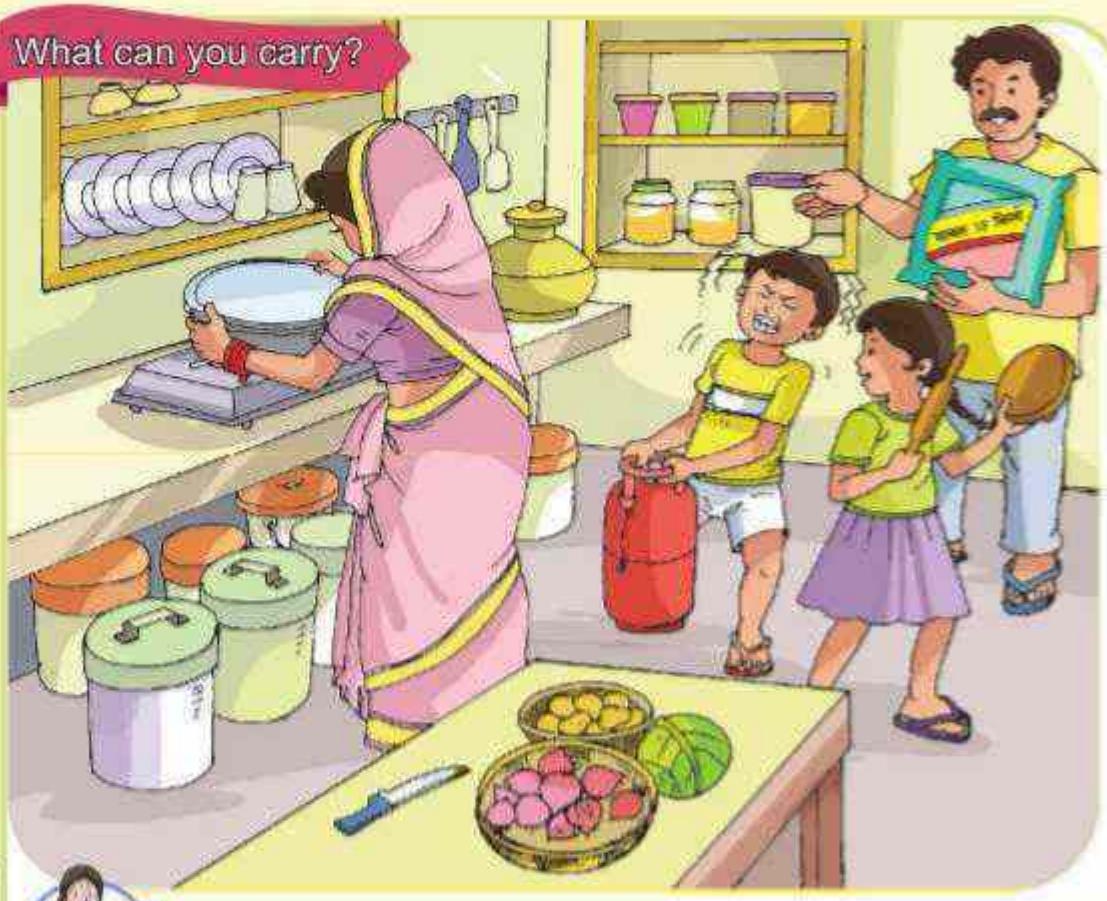
Kiran, Gyani, Shabnam and Vivek are playing with beam balance. They have made their shop. For this, they collected some things such as pebbles, soil balls, Neem seeds, seeds of rice, wheat etc in matchboxes. They played by selling and purchasing things and weighing them by beam balance.

Kiran filled her match box with sand and weighed it using pebbles. The weight of sand filled match box of Kiran is equal to 10 pebbles.

You also play 'Balance Play' and fill the table given below—

Name of the thing	How much weight
Match box filled with rice  	..10.. Pebbles ..... Soil balls ..... Neem fruits ..... Marbles (Glass balls)
Match box filled with sand  	..... Neem fruits ..... Seeds (wheat) ..... Marbles ..... Soil balls
Stone 	..... Neem fruits ..... Seeds (Rice) ..... Soil balls
Ball 	..... Pebbles ..... Marbles

What can you carry?



Let Children observe the picture. Discuss, which things children can carry and which they can't ? What things their parents can carry?

Carry different things placed in your home and fill the table below.

Things which you could carry easily	Things which you couldn't carry
_____	_____
_____	_____
_____	_____
_____	_____

Take it forward

I can carry a sugar cube heavier than me.

Match the things which an animal in picture can carry.









What is light what is heavy?

Let children sit in a circle, make them play 'what is heavy', what is light? like a quick/rapid game and in which children will sing" – What is light what is heavy for the estimate, are you ready?

Which thing is heavier ?

Which thing is lighter ?

Make two teams. One team will ask name of three items in order to their weight say heavy to heaviest. Other team will respond.

Let us make estimation

Mark ☑ on the heaviest object and ☒ on the lightest.

In the border, let children tell third item heaviest or lightest eg. for book and pen, say paper. Now paper is lightest and book is heaviest.
Discuss with children, how did they come to know which object is the heaviest and which one is the lightest?

5 What Comes Next

Maze Solving

Counting from 50 to 100, help Bubbly and Chiku to find their way.

Take it forward

Dinesh Kartik

21 19 12 28 52

Number Card Game

Make groups of 4-4 children and provide them number card from 1 to 9. Now, from each group, every child will pick up two cards and using two digits on cards, he will form number as formed by Simaranjeet. Write the smallest and the largest number of your group in the box. The child with largest number will be the winner of the group and similarly winner in the class .Also discuss, how did they came to know about the smallest and largest number.

M S Dhoni

49 53 31 71 45

Shekhar Dhawan

43 52 39 67 29

Simaranjeet picked up two cards and digits came out to be. 3 7

Name	Digits came	numbers formed	smaller then larger	larger then smaller
Simranjeet	3, 7	37, 73	37, 73	73, 37

Largest number of the group

Smallest number of the group

- Bhuru dog torn the Pinki's book and spread the pages here and there.
- Help her to correctly place the pages in the book.

Virat Kohli

73 67 64 88 82

Suresh Raina

33 22 56 39 27

Arrange the pages in correct order.

88
82
73
67
64

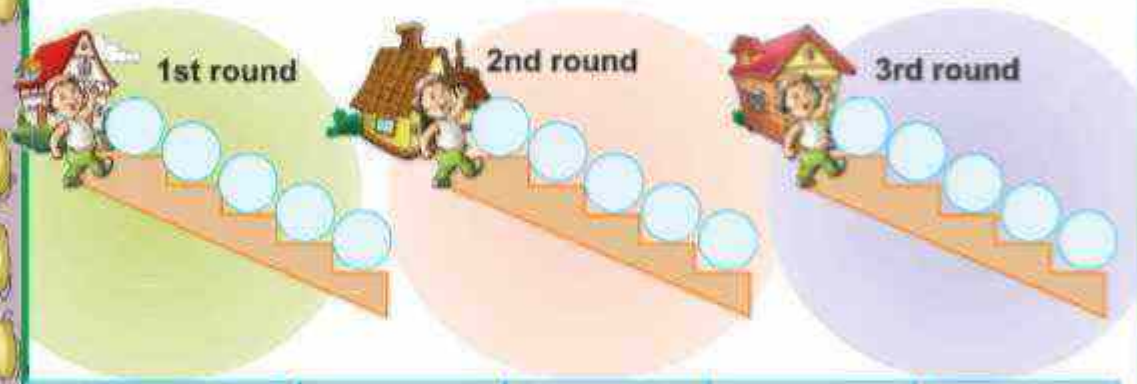
To arrange numbers in correct order, make use of some other activities.
Runs scored by players in five one day cricket matches are given on the border. Write them in boxes as done for Virat Kohli. Discuss the greatest and least runs scored by each player in five matches and later among all five players.

Upstairs – Downstairs

Make groups of 4-4 students. Each group will open the page of dice game from the book and all four children close their eyes and together put finger on any number. See the numbers and write them in the table. Ask them to place correctly on the stairs in their book.

Name				
First round				
Second round				
Third round				

Write the number and come downstairs. Write the largest number, then smaller number than it, then much smaller and so on.



Name				
Fourth round				
Fifth round				
Sixth round				

Write the numbers and go upstairs. Write the smallest number, then larger number than it, then much larger and so on.

What comes next?

Two children will perform it together. A child will open up the book, the number which will be seen on the page upto 100 only, other child will fill the next five numbers from that number. In this way, fill the table while playing together.

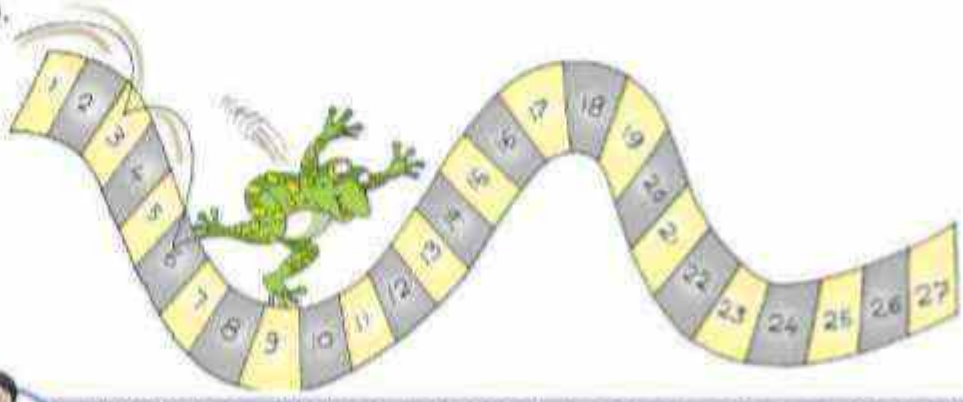
Number which was seen	Next five numbers				
15	16	17	18	19	20

Arrange in Order

Make the groups of 4-4 children. Place the number cards of 1 to 99 in a circle or use two cards 0 to 9. All children will stand around the circle in their groups. Call the first group. All children pick up one card each and move back to their position. During this, other students will do reverse counting from 10, 9, 8...1. Before the end of counting, all children of the group will stand in order according to their number cards. Standing in correct order will get marks. In the same way, other groups will play on their turn.

Chutki's Question

Titu frog jumps two numbers and reaches at third number. Now where will Titu reach. In the same way, make circle on those numbers which Titu will jump.

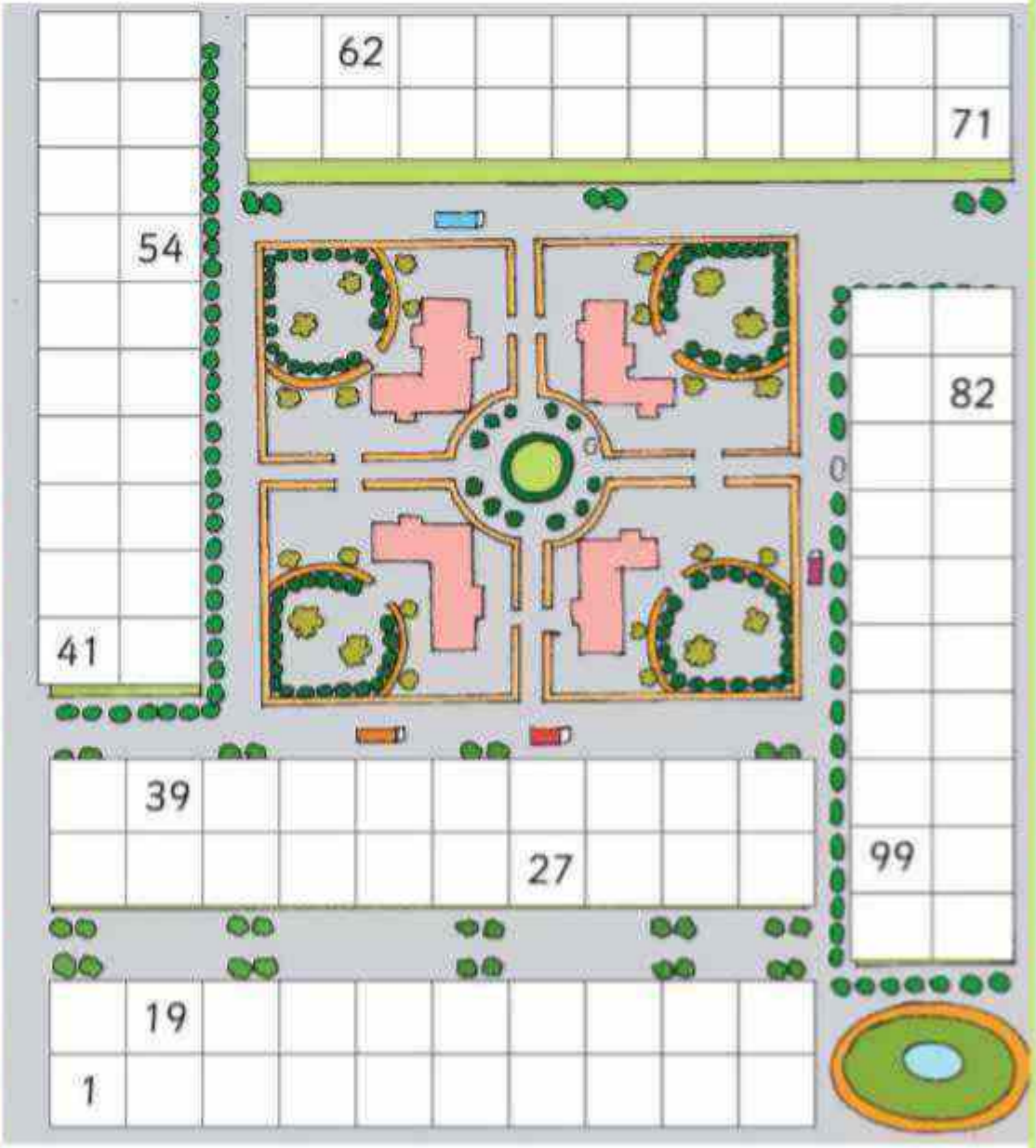


Make two teams. One team will speak a number and will write the number in the middle balloon. Other team will tell one larger and one smaller number than that number and will write on other balloon. The game can be played on the black board also.

79

My Colony

This is the picture of a colony. In this, some house numbers are erased. Write the numbers on them and find out how many houses are in this colony.

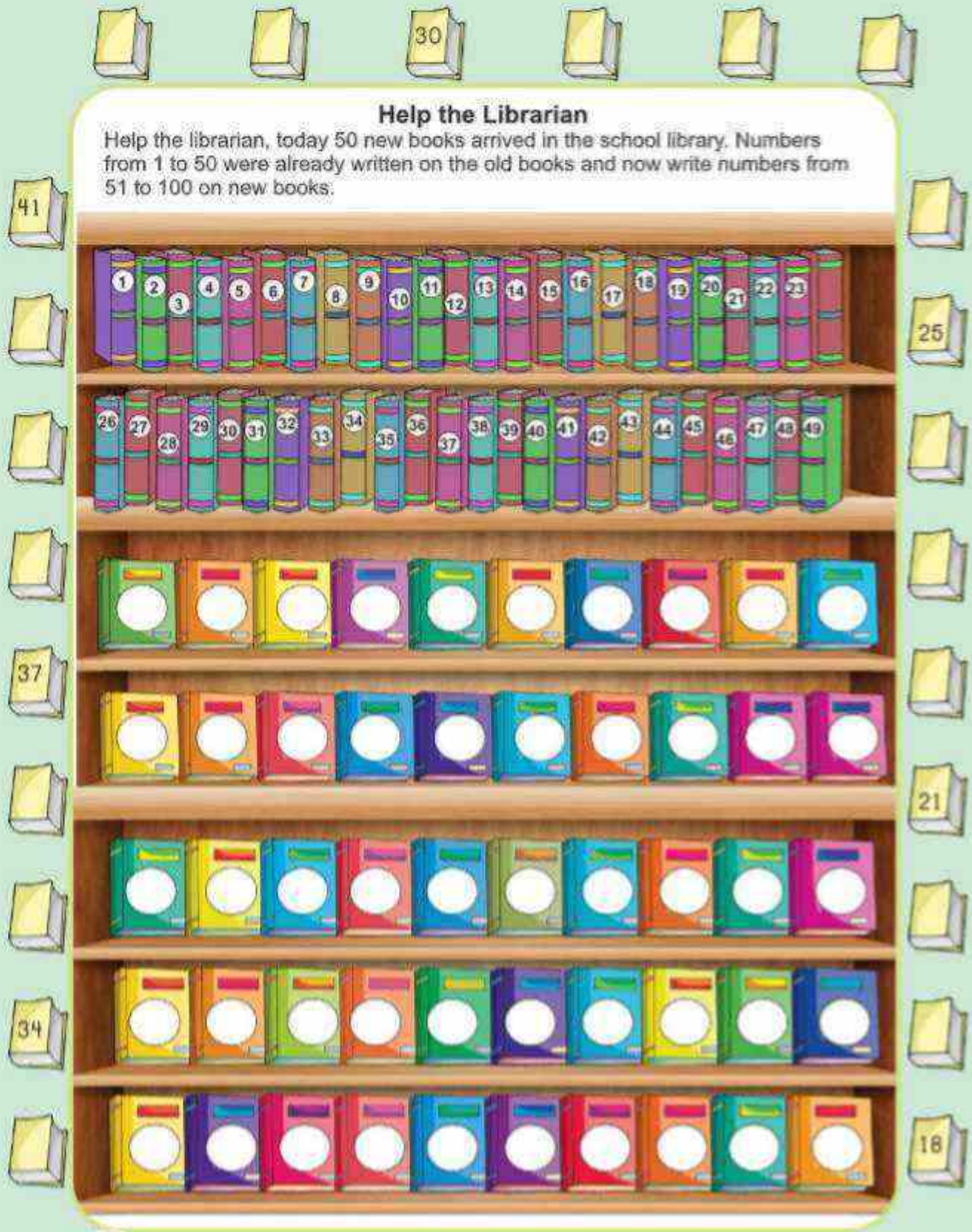


90 68 17 39 30

In border also, write the numbers on houses washed due to rain.

Help the Librarian

Help the librarian, today 50 new books arrived in the school library. Numbers from 1 to 50 were already written on the old books and now write numbers from 51 to 100 on new books.



Train Game

Before starting this train game, make groups of 6-7 students and ask them to run, one group at a time. Now discuss that who is at the first position? Who on the second and so on, on the next position.

To start the game. One group will form a train and other group will stand in a queue on the station, in the form of passengers. Now students in the form of train will sing a poem and walk. While walking in circle when the train will reach the station, teacher will call out, say, second. Then child standing on the second position in the train will come down from train and will stand in the line of children standing at station and one child from station will join the train. Number of stations can also be increased as per the number of children in the game.

Anita is on the third position. During train game, at which position you were ?

First round .....

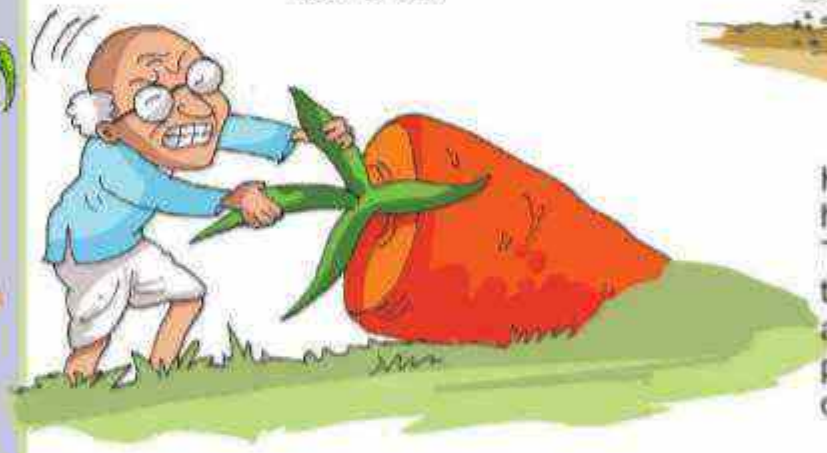
Second round .....

Make two teams and each team will ask questions related to ordinal number, e.g. ask children to colour green in third bogey, red on sixth bogey etc.

The Big Carrot

An old man planted a carrot seed.

The carrot grew big and sweet. It grew very very big!
He tried to pull out the carrot but it did not come out.



He quickly called his wife.
The old man pulled the carrot leaves and the old woman pulled him. But they could not pull it out.

The old woman called her grand daughter. The old man,
the old woman and the grand daughter tried but could
not pull the carrot out.

Ask questions on border like-which fruit is at third place?, banana is at which place? etc. Also discuss from where they started whether from top or from bottom.

The grand daughter called the dog. The old man, his wife, the grand daughter and the dog could not pull the carrot out.

Then the dog called the cat. Everyone pulled and the cat held on the dog's tail. The carrot did not move.

The cat called the mouse.

They all pulled hard together and the carrot came out. ZABOOM! They all fell down!

They were so excited! So they all went to the kitchen to make gajar ka halwa and ate it up.

Take it forward

Take it forward

Let us look at the picture and write:

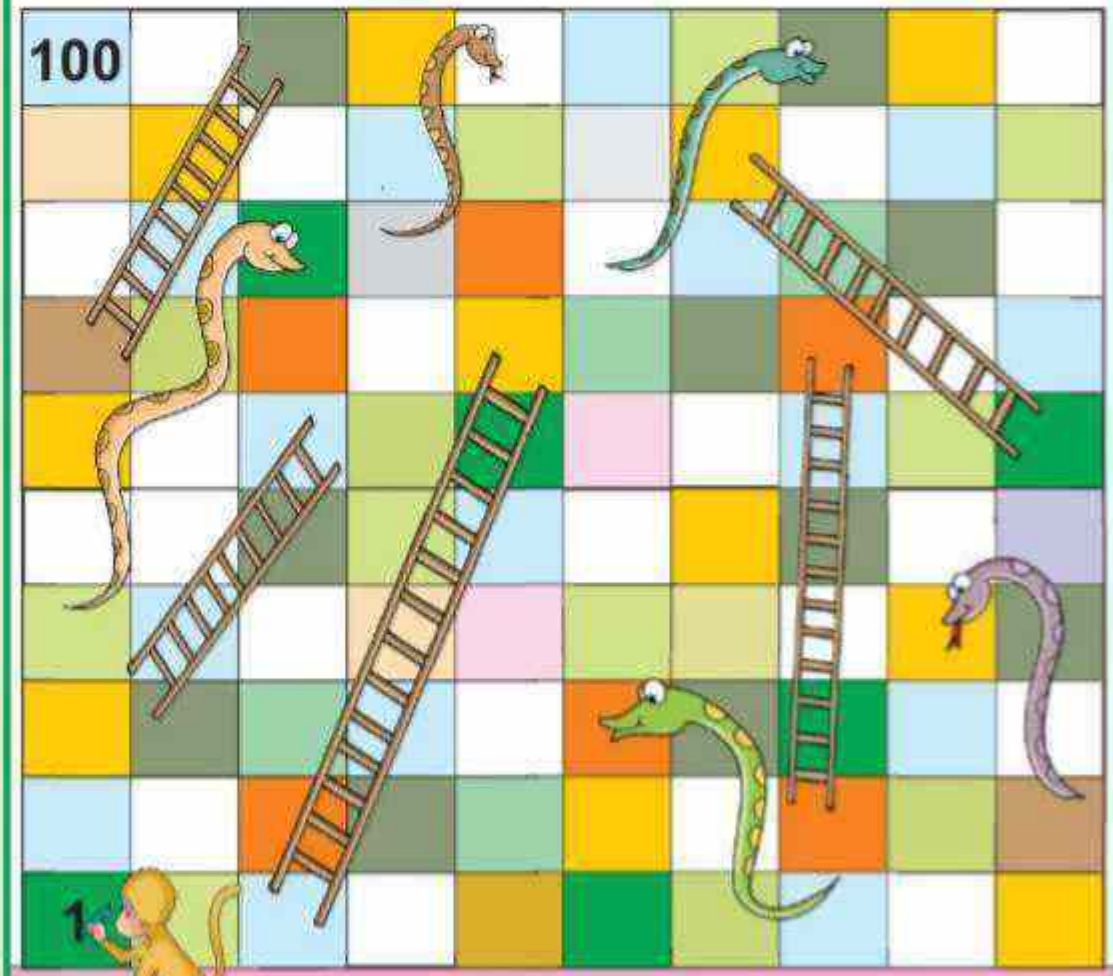
- How many are pulling the carrot out?
- Who was the first one to pull it?
- Who was the fourth one to pull the carrot? _____

- The cat is _____ in the line.
- How many were pulling the carrot before the cat came to help them?
- Make a cap on the third one in the line.
- Make a moustache for the sixth one in the line.
- Make tail on the fifth one in line

Create practice activities for the use of ordinal numbers. For example, make 6 children stand in a line. Assign them positions as first, second, third etc. with respect to some reference point. Give them interesting tasks to perform, such as 'third child, tickle your partner', 'second child, hold your nose' etc. Also discuss with children difference between say third and three. First time say, 'these three children come here' and second time say, 'third child come here'.

Write numbers and play

Let us write numbers from 1 to 100 and play.

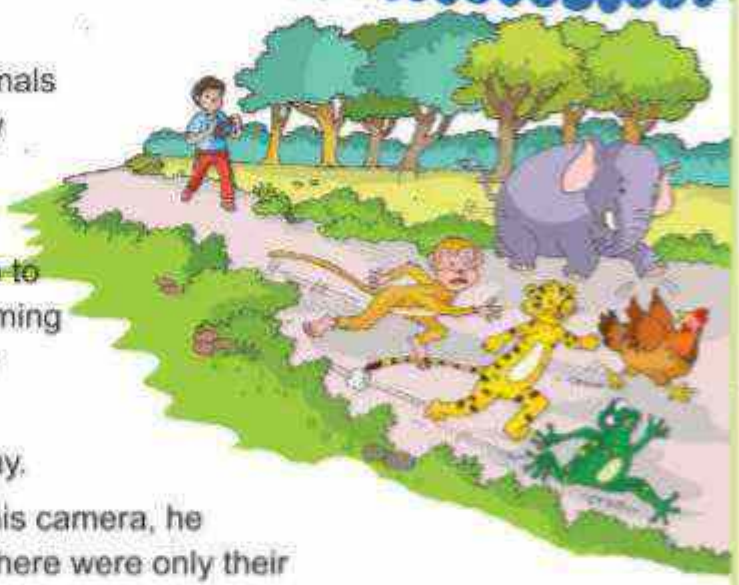


Whose foot print ?

Bholu and foot prints

One day some baby animals were playing on a muddy path in a jungle.

Suddenly an elephant shouted – Run! Run!, Go to your homes, Bholu is coming to shoot all of us with his camera.



All baby animals ran away.

When Bholu came with his camera, he found no animal there. There were only their footprints on the road.

- Can you match animals with their footprints ?

- Draw footprints of yourself and your friend on the ground.
  Are the footprints equal or unequal? If unequal, then whose footprints are smaller? My footprints ☐ or Friend's footprints ☐

Trace the handprint of all your family members on a newspaper. Let your friend guess the handprints on newspaper of you, your mother and your father. Collect some leaves, sticks, bangles etc. and trace them.

- See the picture, Ruhi has traced a bowl in two different ways.

- How has Ruhi placed the bowl to trace it in two different ways?

  Match them.

- Rahima took a glass which gives different shapes when placed in different ways. In what ways, has she placed the glass?

Find and collect other objects like glass and bowl. Try to trace different shapes by placing them in different ways.

- Yash was tracing a leaf.

You also collect some things like leaves, pebbles, sticks, bangles, bindis, bowls, eraser, spoon, pipes and coin etc.

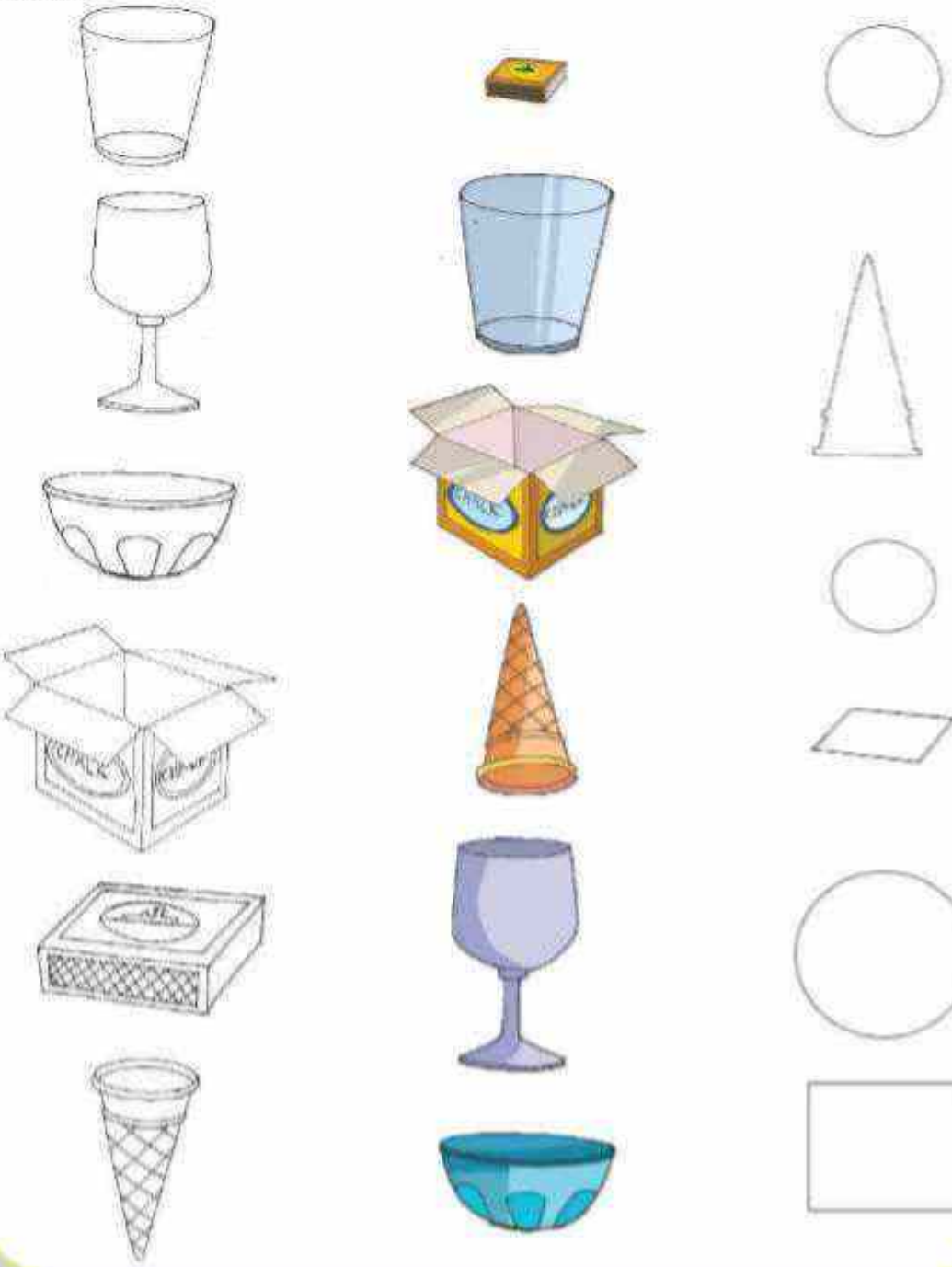
Now draw different shapes by tracing these things on paper.

After tracing, divide the students in two groups. First group shows a trace to other group and the second group will guess the trace of which things. Second group will do the same with the first one. Repeat the same turn by turn.
Encourage children to trace in different ways like Ruhi and Rahima.

Take it forward

Whose trace or print

Let us match the objects in the center with their prints/tracing on both sides?



Fun with Tracing

Collect some more things like potato, lady finger, bowl, coin, bottle's cap etc. Now make their impression below by stamping with the help of ink, colour or any other thing (clay, sand etc.). You can also take impressions of your thumb and fingers. Let your friend guess the impressions of different things.

Children can also make impression on sand or clay.

From the impressions or the pictures of things you have traced, write names of the objects whose traces are identified.

Figure	○	□	△	⬭
1.	Bowl	Eraser		
2.				
3.				

What are the similarities in the shapes formed after tracing. Help the students to observe the similarities and differences

Chutki's Question

Kanak like to collect different types of bindies.

- How many packets does she have? .....
- How many bindies are there?.....

Quick Addition

Head – Tail Game

To play this game, take things like different seeds, coins, buttons, pebbles, which have two sides, head and tail or can be made. Now divide the children in groups of four. The group will start the game with a number, say 5. Children have to take 5 buttons or other thing. Now one student will throw the buttons in centre. Suppose he will get 4 heads and 1 tail then he will write his name and 4+1=5 in the table given below. After this 2nd child gets 2 heads 3 tails. He will also write his name and 2 + 3 = 5 in the table. After this if any of the child gets 2+3 or 4+1 then his/ her name and number will not be written. Only new addition will be written in table. Let children play this game using 6 or 7 or more buttons also. The aim of this game is to develop an understanding of addition facts among students.

2 heads + 3 tails
2 + 3 = 5

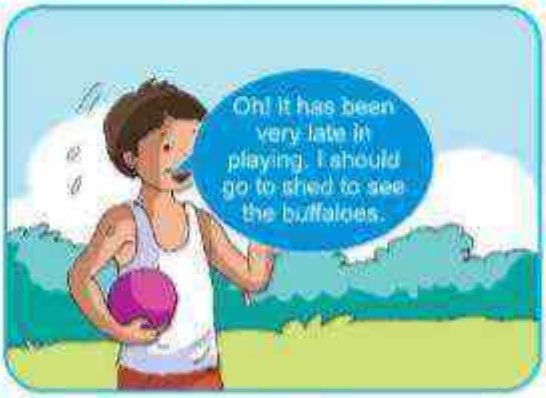
Table

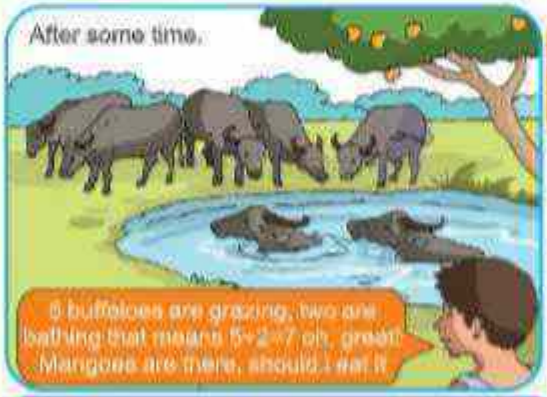
Name	Head + tail = total
Ramesh	2 + 3 = 5
Sunil	5 + 0 = 5
Jasneet	3 + 2 = 5
Sunil	4 + 1 = 5
Pramod	1 + 4 = 5
Ramesh	0 + 5 = 5

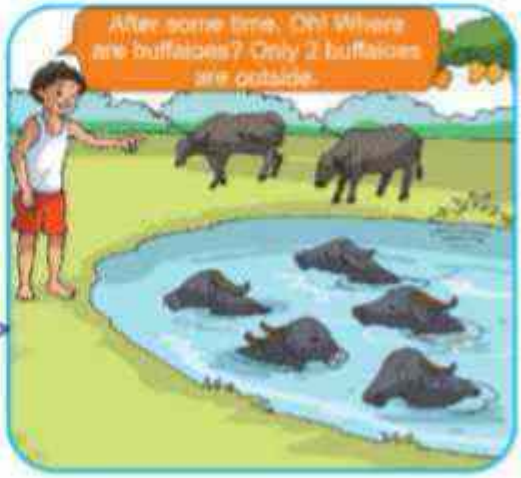
Table

Name	Head + tail = total

What a magic







Can you tell, where are buffaloes?

How many buffaloes are outside the pond?.....

How many buffaloes are inside the pond?.....

Total how many buffaloes?.....

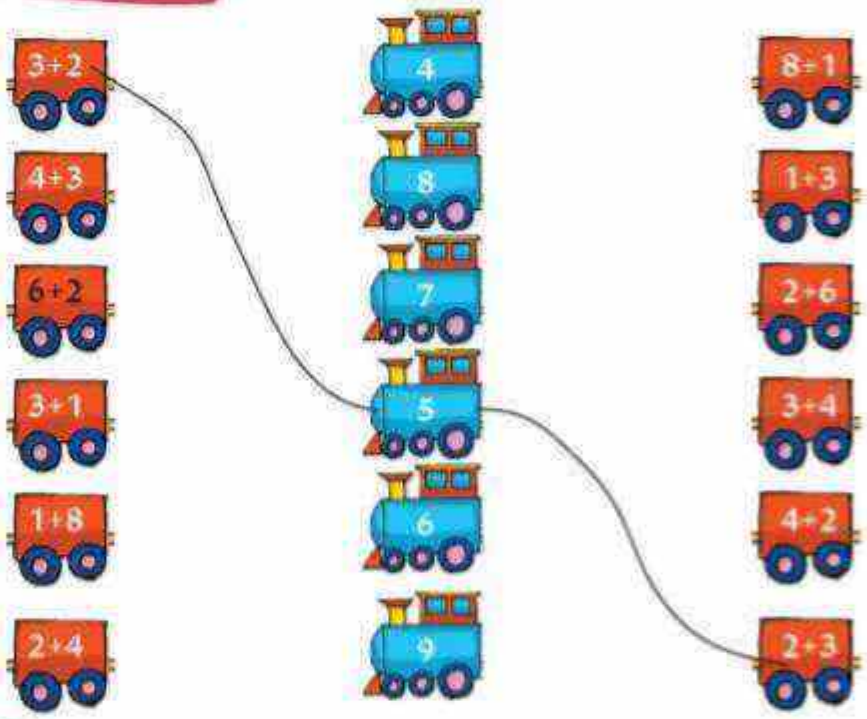
The total number of buffaloes are same as before? How did you get it? Discuss.

4 + 2

2 + 4

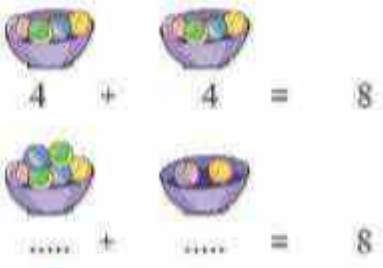
Use concrete things to develop commutative property. Let children write addition facts as written for 6. As 4 + 2 and 2 + 4 and discuss.

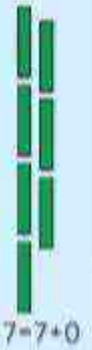
Find the partner



Game of 8

Sonu has 8 marbles, he started playing a game of two bowls. He kept the marbles in bowls as shown below.





This game is for the addition of 0. Discuss about the concept of the addition of 0, with the students. Let children do this with the help of stones etc.

Play this game with 6 marbles



3 + 3 = 6



..... + ... = ...



..... + ... = ...



..... + ... = ...

Play this for 3 marbles



..... + ... = ...



..... + ... = ...

Heads and Tails

Have you seen the two sides of a rupee coin?

Which side has 1? Head / tail

Sameena and Sadiq are playing. The board has numbers from 1 to 99. Each player has a button. They toss a coin. If it is  the button moves 10 steps. So, if Sameena is on 6, she moves to 16. If she gets  , she moves only one step.

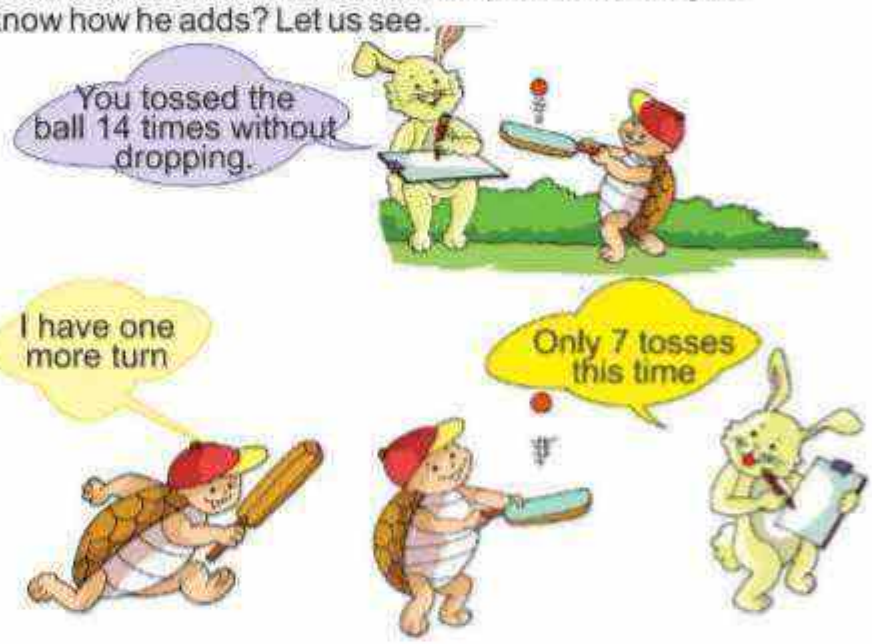
Wherever one gets 'Bird', he will get another chance.

91	92	93	94	95	96	97	98	99	100
81	82	83	84	85	86	87	88	89	90
71	72	73	74	75	76	77	78	79	80
61	62	63	64	65	66	67	68	69	70
51	52	53	54	55	56	57	58	59	60
41	42	43	44	45	46	47	48	49	50
31	32	33	34	35	36	37	38	39	40
21	22	23	24	25	26	27	28	29	30
11	12	13	14	15	16	17	18	19	20
1	2	3	4	5	6	7	8	9	10

Observe the child, whether the child is going ahead by counting one number at a time or directly reaching at 12 from 2 or 18 from 8. Children may take time to find the short way. Keep patience don't tell them the way. Let children get to know the rule on their own during the play.

Toss the Ball

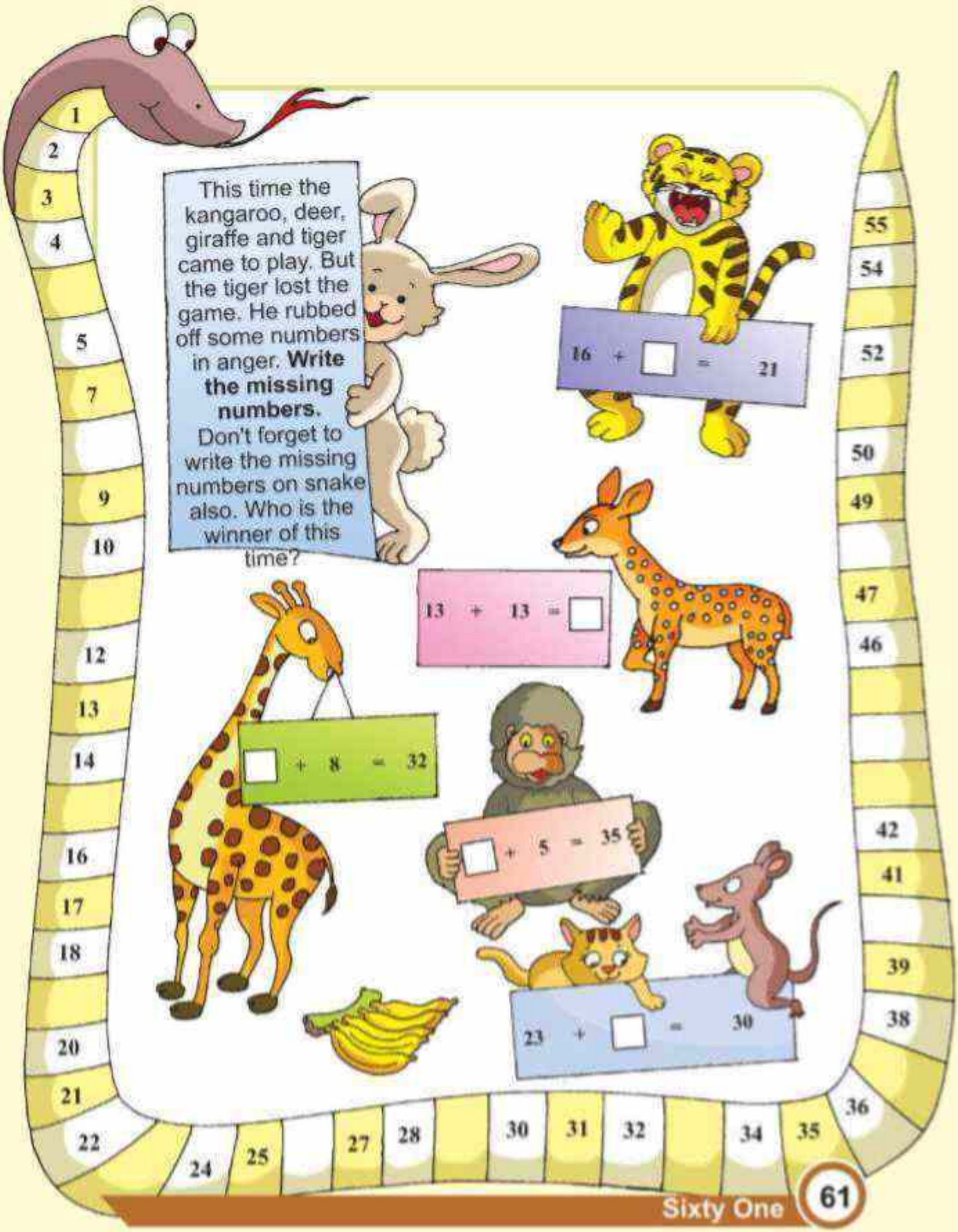
Animals of the forest are playing. Turn by turn, they toss the ball on their bats until it falls. Each player gets two turns and Bunnoo rabbit adds their points. But do you know how he adds? Let us see.



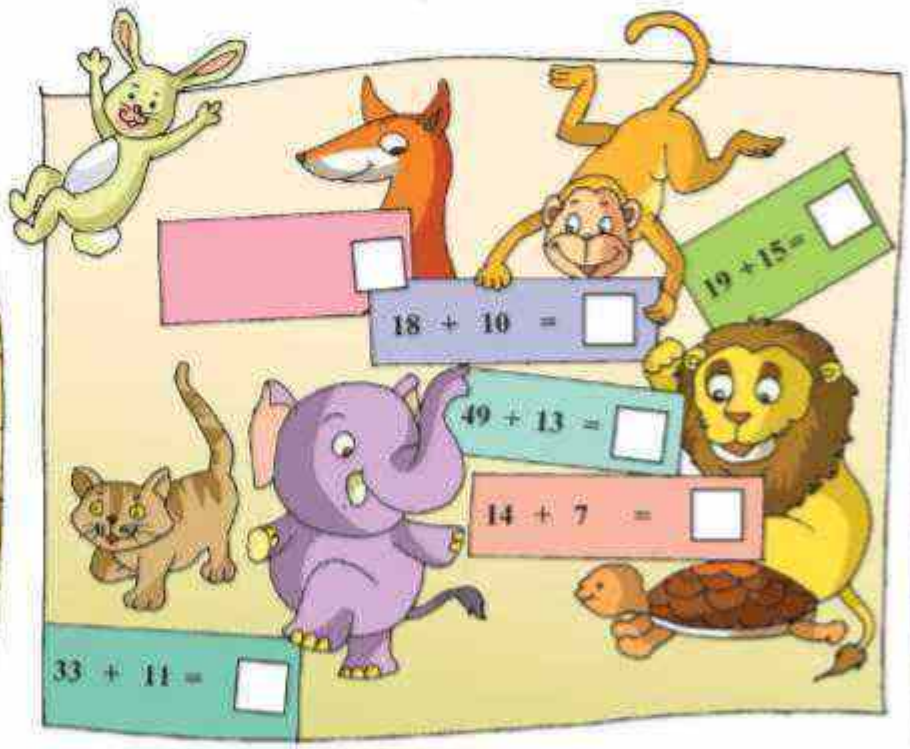
Bunnoo adds on the snake. To add 14 and 7, Bunnoo stands on 14. He jumps 7 steps forward. He reaches 21. You can also add points on the snake.

You also play this game. Each player will get two chances. Toss the ball two times without dropping and fill the table.

Turn	First toss	Second toss	Reached at snake
tortoise	14	7	.....
you	.....	.....	.....


This time the kangaroo, deer, giraffe and tiger came to play. But the tiger lost the game. He rubbed off some numbers in anger. **Write the missing numbers.** Don't forget to write the missing numbers on snake also. Who is the winner of this time?
16 + □ = 21
13 + 13 = □
□ + 8 = 32
□ + 5 = 35
23 + □ = 30
1
2
3
4
5
7
9
10
12
13
14
16
17
18
20
21
22
24
25
27
28
30
31
32
34
35
36
38
39
41
42
46
47
49
50
52
54
55

Now, also tell from these, who tossed the balls maximum times.



- Who won the game? .....
- Who lost the game? .....
- The winner got bananas from Bunnoo.

Chutki's question

Prabha on her birthday, wants to distribute one fruit each among 25 friends . she has brought with her 15 banana , 7 apples and 8 oranges. Will she be able to give fruits to all children ?

Estimate less or more

This activity is for developing the ability of estimation in students. Also discuss that how they estimated? Encourage children to make questions of estimation for number given in border.

8 Lines and Lines

This game will be played like the game of sparrow fly..... Parrot fly..... in big groups. All children will keep their pencil or pen in their hand. Teacher will call out- 'standing' then all children will make their pencil stand on the floor in the same way for slanting and sleeping, they will make it slant or sleep on the floor. Call out stand, sleep and slant quickly by changing their order. Give children an opportunity to discuss about right or wrong position? For better understanding of sleeping, standing and slanting position of pencil, keep paper behind pencils as shown below.

Lets play a game

Whose stump is this?

Today, there is a cricket match in Fatima's school.

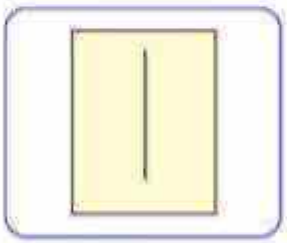
Fatima, Jasbir and Ritu have each brought their own stump from home. They keep these in a corner of the room.

Fatima keeps her stump in standing position.

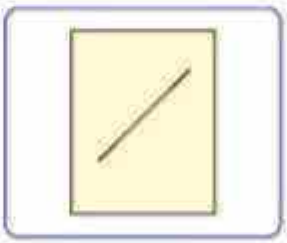
Jasbir keeps his stump in slanting

Ritu keeps her stump in sleeping

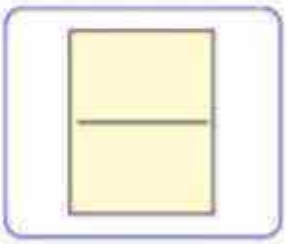
To show others, how they have kept their stumps, they have drawn lines in the notebook.



Fatima draws a standing line.



Jasbir draws a slanting line.



Ritu draws a sleeping line.

Match the picture of each child with the line they have drawn.

Fun with Lines

Divide children in groups of 4-4 or 5-5 and provide 15-20 matchsticks without material on top and ask them to make shapes of their choice using these matchsticks. Discuss that what they have made?

Priya made shapes with matchsticks.

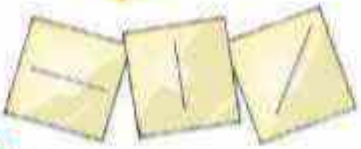
You also make shapes with matchsticks of your choice.....

Look carefully.

Does your shape also contain some standing, some sleeping and some slanting matchsticks? Count them and write below

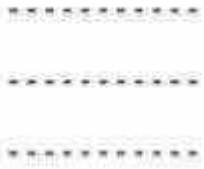
Name or picture of shape	Standing matchsticks	Sleeping matchsticks	Slanting matchsticks

Priya drew lines in her notebook to show how she has kept standing, sleeping and slanting matchsticks.

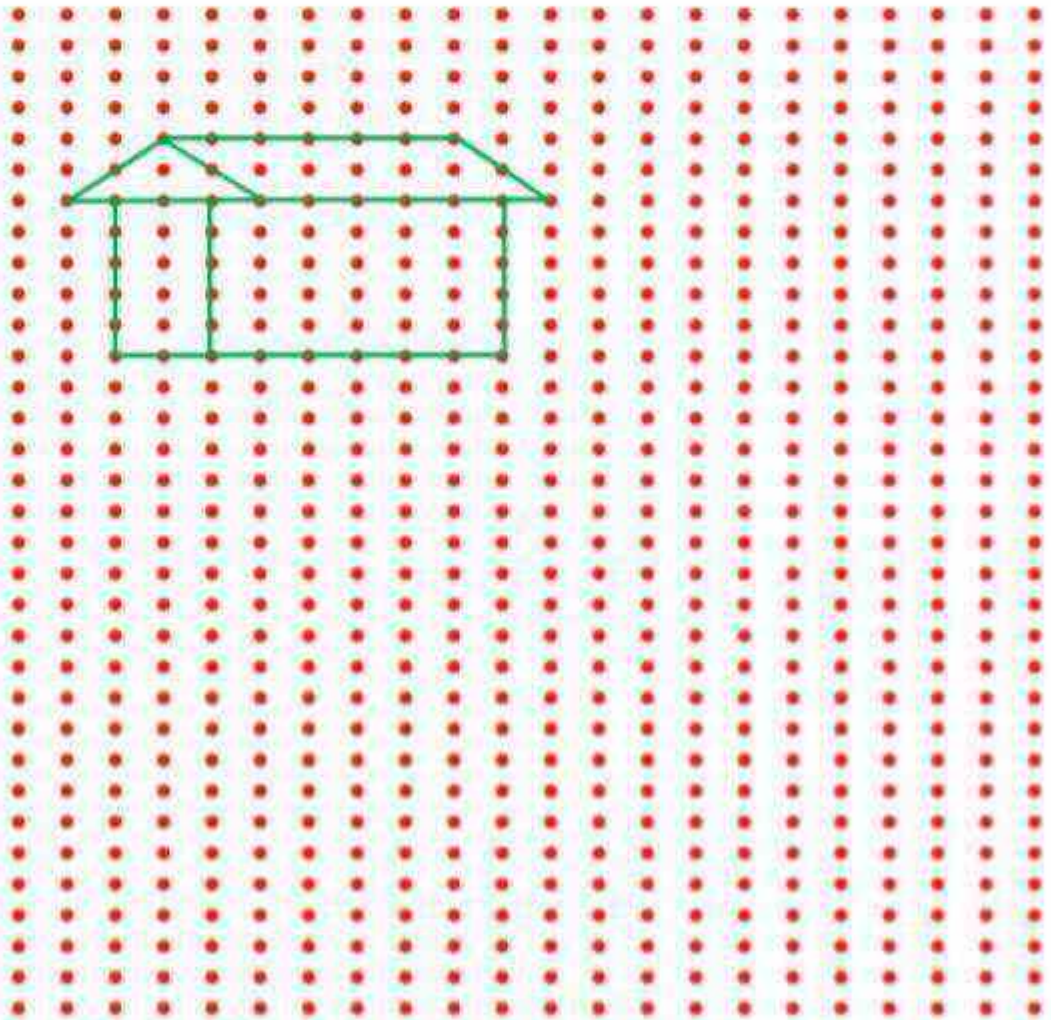


Take it forward

You also draw lines

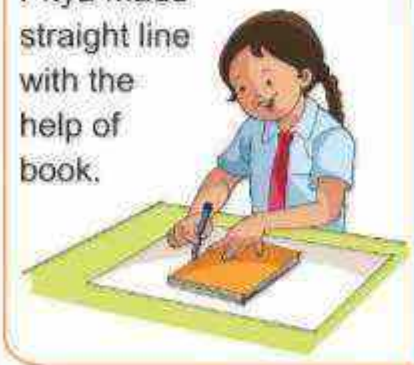
Standing	Sleeping	Slanting
		

Using pencil, draw the similar shape made by matchsticks in the space below.



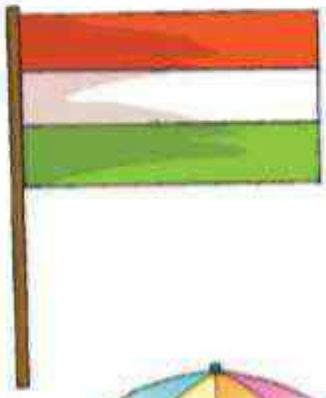
What things can be used to draw straight lines? Discuss how?

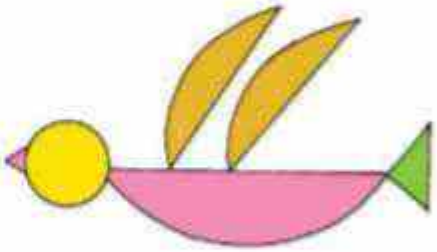
Priya made straight line with the help of book.



You also draw straight lines using different things.

Place matchsticks here



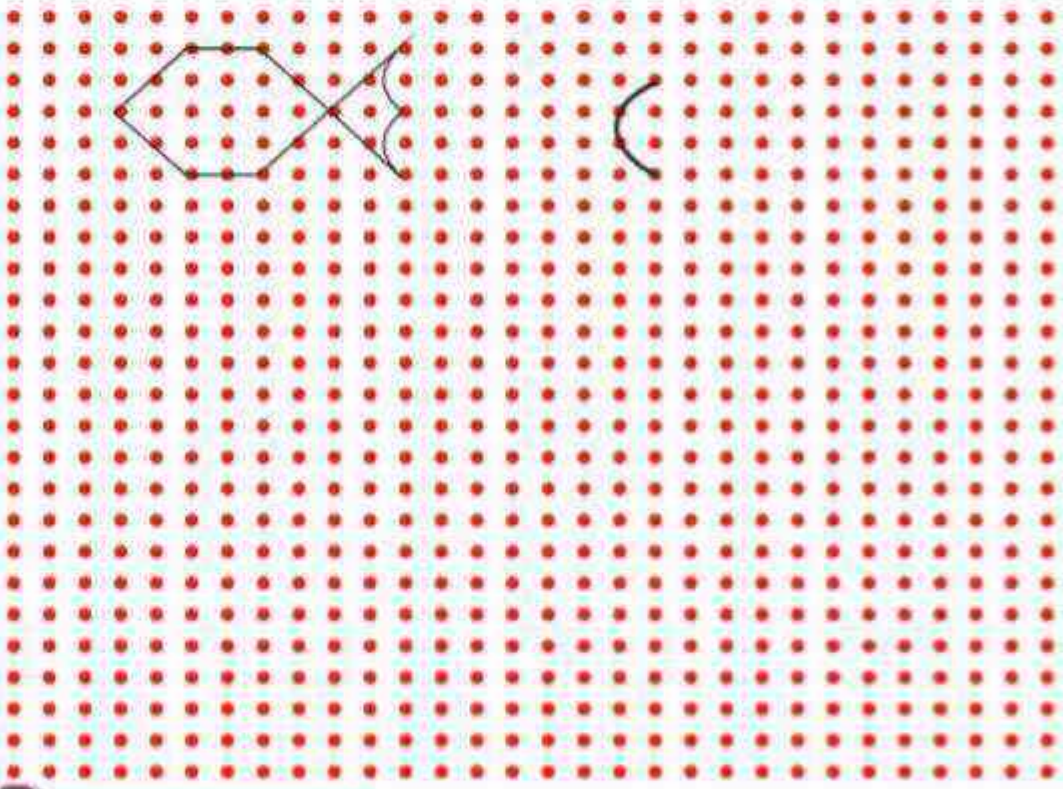


In which picture, you were not able to place complete matchsticks and why? Discuss.

Take it forward

Let us draw curved lines

Rohan gave his reason that pictures contained some curved lines while matchsticks are straight. Therefore, they could not place matchsticks completely. Draw curved lines in the dot grid below.



Chutki's question

A pattern is made on the gate using  , can you tell which of the following patterns cannot be formed using this? Discuss why?

Take it forward

Make Numbers and Alphabets with Matchsticks

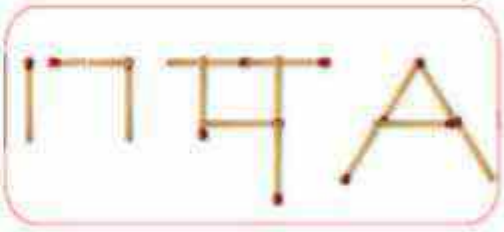
Numbers and alphabets have been written in this clock using lines. Where have you seen more such things? Discuss and write.

.....

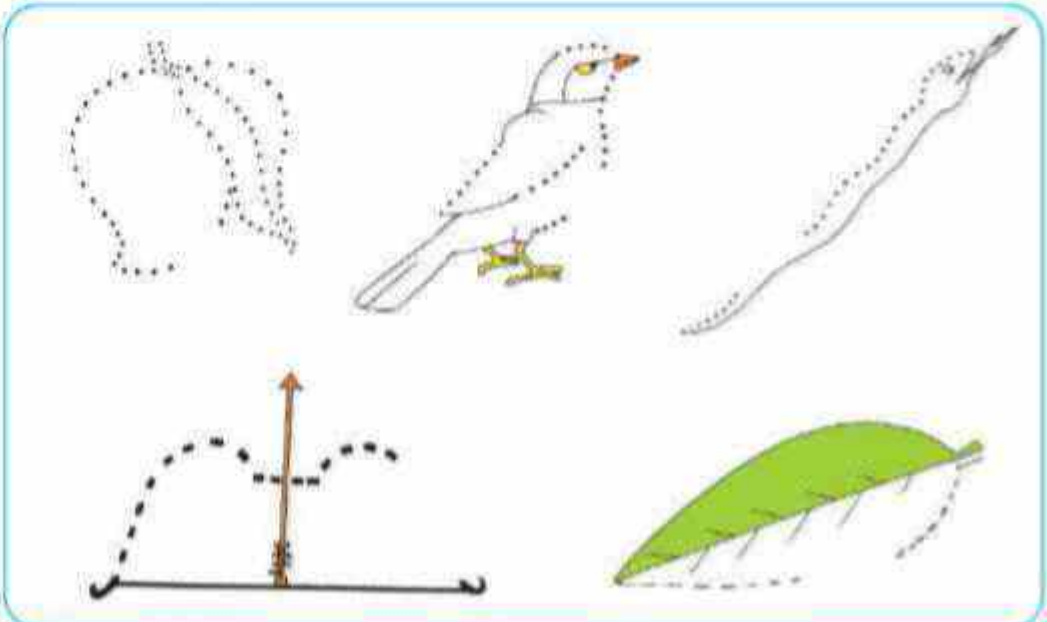
.....

.....

- Radha has made some numbers and alphabets like this. She wants to write your name, help Radha to make your name using matchsticks. Is there any number or alphabet which could not be made using matchsticks?



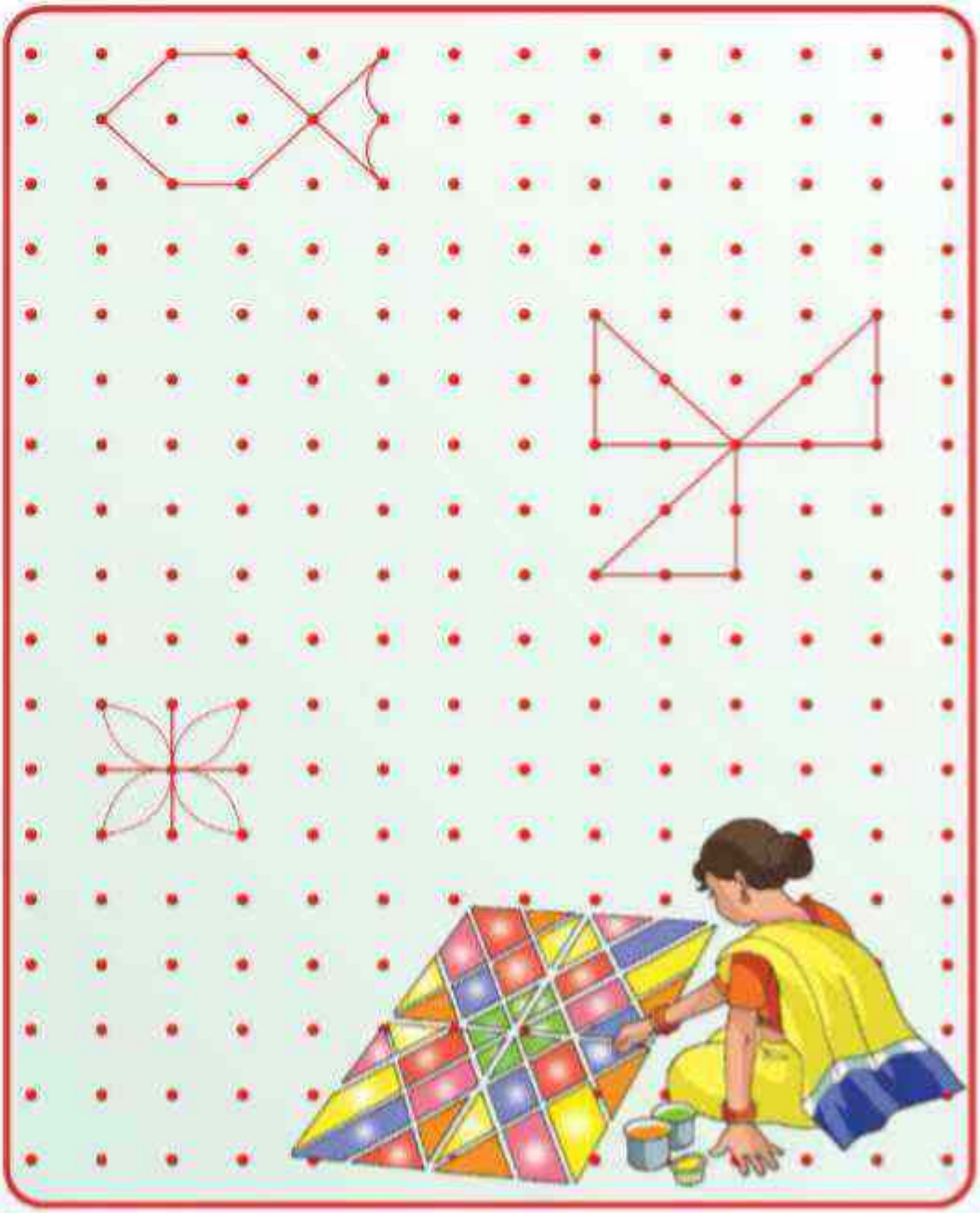
- Golu was making a picture, which he could not complete. Help him to complete it.



Take it forward

Designs with Dots

Let us join the dots with curved or straight lines to make our own designs.



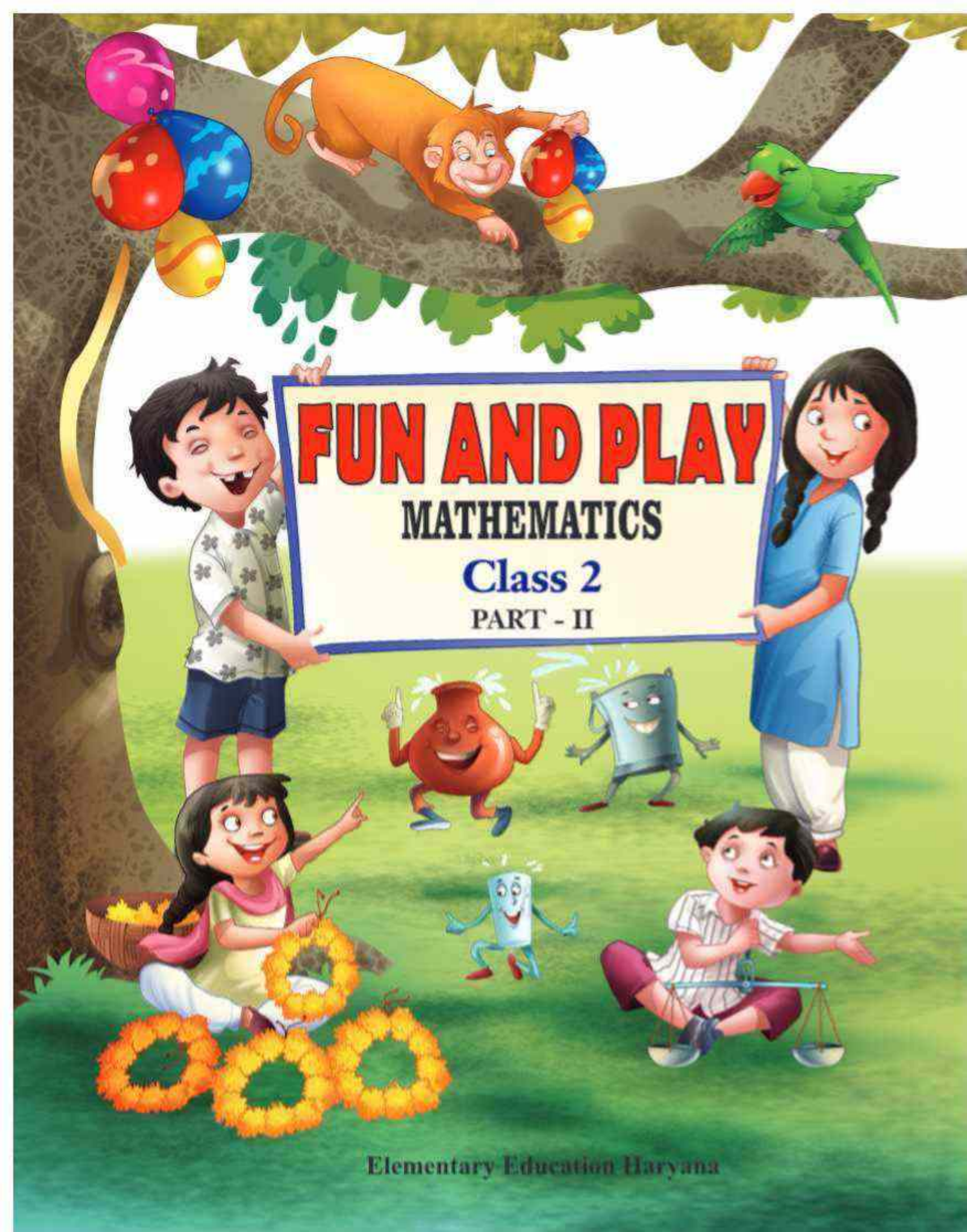
Take it forward

Lines in Pictures

Look pictures made by folk artists by using lines such as — curved, standing, slanting and sleeping.

Let us draw some more pictures like these.

Take it forward


FUN AND PLAY
MATHEMATICS
Class 2
PART - II
Elementary Education Haryana

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For Teachers

According to National Curriculum Framework (2005) , the vision of Mathematics Teachers should be based on two key pillars – first, the children may feel the need to learn Mathematics : second all the children can learn Mathematics. But usually, Mathematics as a subject is considered boring or less interesting. It is also believed that children face difficulty in learning Mathematics. Special care has been taken to avoid these prejudices about mathematics, These books are developed to create interest of children in Mathematics using contextual learning, giving challenge, scope for alternate algorithm, games and activities etc. Children will construct their knowledge by understanding Mathematical concepts in natural way on their own and can relate and experience them in their life outside the school.

Some important factors for Teaching and learning of Mathematics at primary level—

1. Learning Mathematics doesn't mean solving the mathematical sums by using standard methods mechanically, rather to use reasoning, thinking and to discover new methods.
2. Mathematics not only means cramming shapes, calculations, algorithms and laws, but also correlating different events and finding new ways through analysis.
3. Teaching-learning of Mathematics is directly related to achieving the important aim of helping children become independent and critical thinkers along with development of many other abilities,
4. One more objective of Teaching-Learning of Mathematics is developing an attitude so that the students can analyse their Mathematical experiences.
5. Children's experiences, discussions and explorations form the basis of their constructing Mathematical knowledge, therefore, there should be ample opportunities for the same in the classrooms.
6. Mistakes committed by students are the part of their individual learning and steps in acquiring knowledge. These mistakes should be used as steps to understand the children's thinking and should not be seen as problems.
7. The mistakes committed by them should not be dealt with by simply marking wrong or writing / telling the correct answers. Try to observe and analyse the child's reasoning and thinking used in their answers.

The role of a teacher is very important in teaching learning process of Mathematics. The content and approach used in this textbook helps the teacher significantly to play his role. Simultaneously, the proper use of the text book in the class for making Mathematics more interesting , depends on the teacher.

A suggested general sequence of activities to use this book most appropriately and interesting way—

- We should prepare a context such as activity, discussion, story etc. before starting the concept of any topic. For this some suggestions are given in the book.
- Any concept should not be dealt directly during activity, rather after doing activity, engage them in discussion for that concept. The important concluding points by children during discussion should be written on blackboard.
- Ample opportunities should be provided to the students for discussion, picture observation and understanding while working with the text-book – Encourage the students to express themselves.
- The teacher should make sure that all the students participate in activity or writing work or filling the tables, wherever given in the book.
- Provide ample opportunities to share their experiences. Motivate them to use and find out or relate concepts of Mathematics at their home, farm, market, games etc.

- Instructions for the teacher are given in the book. Teachers must read them. These instructions will help in conduction of all the activities.
- Some questions are given in the form of suggestions for discussion with the students. Prepare more questions for discussion with the students, sharing their experiences and for understanding of the concepts.
- Motivate children to frame questions.
- The teacher should be patient and should not tell or conclude himself. Let them think and struggle to face the challenge themselves, however, according to the situation increase or decrease the level of challenge.

Salient features of Mathematics text- book—

- Language used according to the level of the students.
- Learning by doing has been emphasized.
- The process followed is from concrete to semi concrete, semi concrete to abstract has been emphasised.
- Activities and games are included according to the interest and level of the students.
- Worksheet/Table is given after every activity and game so that the student's participation is ensured.
- There is use of contextual learning such as daily life experiences, stories, poems, picture stories, games and activities etc.
- Many opportunities to learn naturally and indirectly are provided and giving direct information to students is avoided.
- The illustrations are designed according to child's interest and surroundings which play an important role in teaching- learning process.
- The challenges are given according to the student's level so that the students proceed in teaching learning process by struggling with them.
- For peer learning, opportunities are given to the students to work in groups.
- For recapitulating the concepts learnt, problems at regular intervals in the book such as. Chutki's and Chatlu's Ke questions are given.
- Ample opportunities have been provided on the borders for learning and assessment.
- Suggestions for teachers are given in the book wherever required.
- Ample opportunities for group discussion with children are given so that they can express themselves and participate in teaching learning process.
- Open ended questions are given at many places in the book, which have more than one answer.
- Play money, number cards etc. are given at the end of the book should be cut and given to every child to do the activities. Children can play snakes and ladders game givan on back cover page.

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Contents

TLM are given in the end of the book, let children cut and use.

9

J3G917

Games of Addition and Subtraction

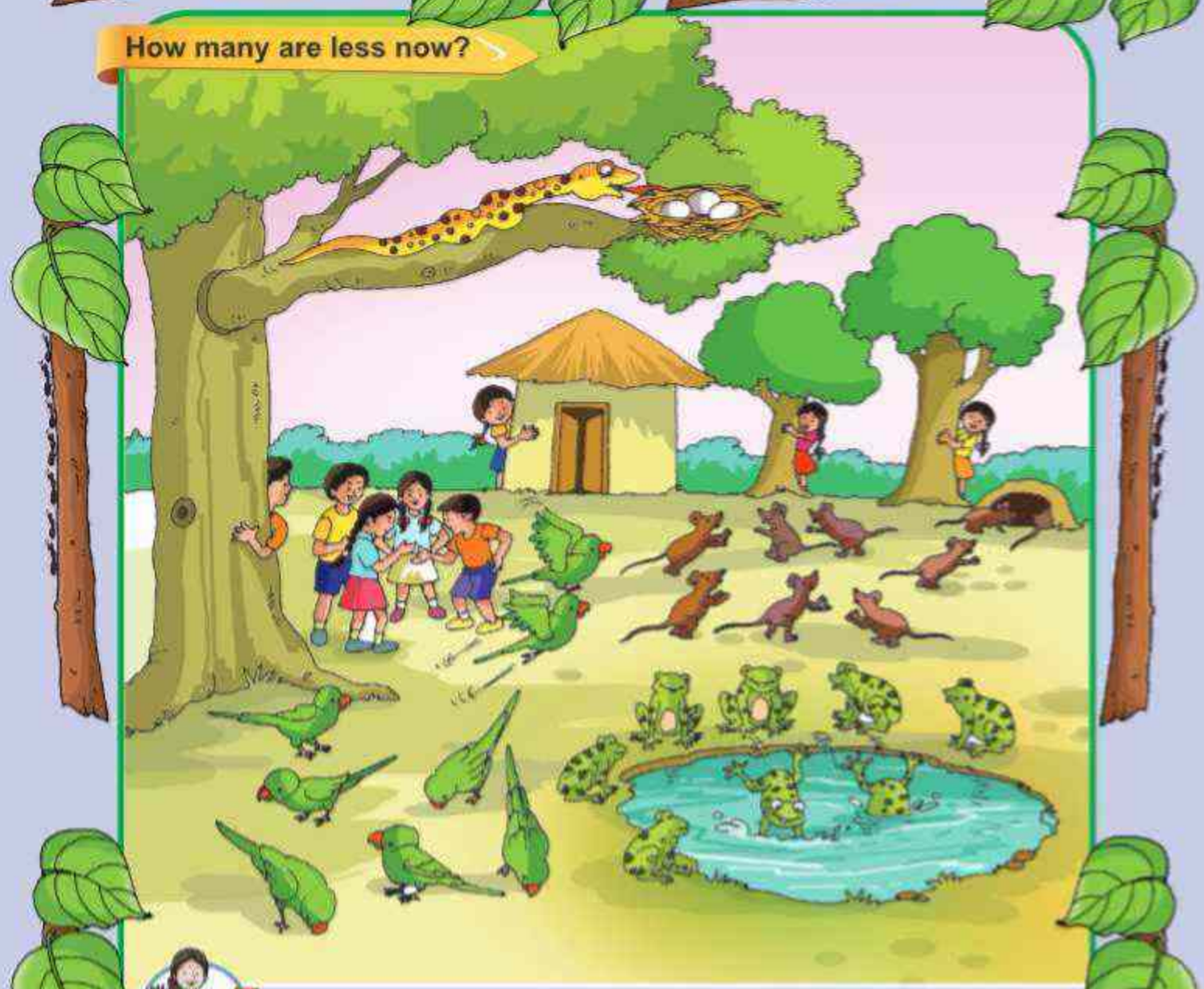
Keep 9 or less than 9 things like toffees, stones, seeds, chalks, etc. on the table. Divide the children in two groups. Ask a student from one group to pick up some things in one of the fist. Now ask children of other group, can they find out how many things are there in the child's fist? Repeat the same activity 2-3 times by changing the number of things each time. Discuss with them that how did they get it? Let the children play this on their own and fill the table given below.

How many stones in your fist?

Your turn	Total stones	Stones guessed by your friend	Stones found
First turn			
Second turn			
Third turn			
Fourth turn			

How many pebbles are in the pictures of fist given on the border?

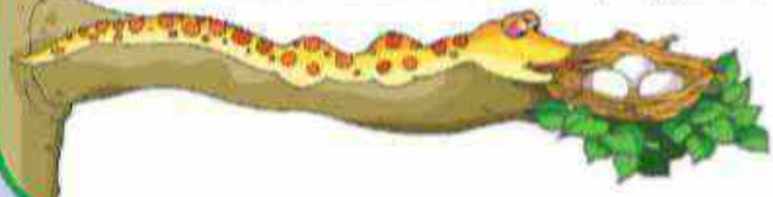
How many are less now?



Let children observe this picture and discuss what is going on in the picture. Some questions of subtraction are hidden in this. Let children find those questions and discuss about them.

Now do these—

There were 5 eggs in the nest. Greedy snake swallowed 2 of them. How many eggs are left?



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

8 frogs were sitting on the bank of the river. Two frogs jumped in the water. How many frogs left on the bank?

$$\begin{array}{r} 8 \\ -\ 2 \\ \hline \\ \hline \end{array}$$

8 birds were peeking the grains, 4 of them flew away. Then how many are left?

There were 5 eggs, one of them broke up. How many unbroken eggs are left?

There were 10 bananas in a basket. A monkey picked two of them. How many bananas are left in basket?

$$\begin{array}{r} 10 \\ -\ 2 \\ \hline \\ \hline \end{array}$$

Game of two cards

Place 2 sets of number cards from 0 to 9 in a circle. Divide the class in two groups. Now the teacher will call out a number, say-4, from both the groups 1 student of each group will come and pick up any 2 cards which gives number 4 on subtraction, for example—9 and 5. The one who picks up the right cards fast, his team will get point. During the game, whoever picks the right cards, it will be recorded on blackboard like 9–5 = 4. Later on, let them make word problems based on daily life experiences from these number facts and discuss about it.

3 + ☐ = 7

7 + ☐ = 7

5 + 1 = ☐

☐ + 3 = 7

4 + ☐ = 6

☐ + 3 = 6

2 + 5 = ☐

6 + ☐ = 6

5 + ☐ = 7

7 + 0 = ☐

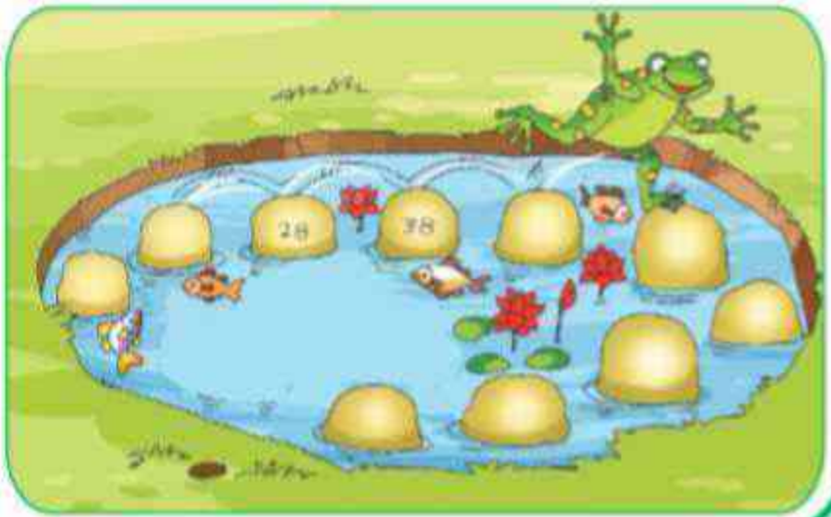
What is equal to?

First of all, discuss with students, what can be equal to 6? (e.g., 6 is equal to 2 + 4, 3 + 3) After this discussion, start the activity. In this activity, one child will tell a number and think what is equal to that number. E.g. for 6 he thinks 4 + 2 and writes it down without showing it to others. Children will try to tell what has he thought equal to 6. The one who will tell the correct numbers, will get next turn and will think of other such numbers. Like this, the activity will be repeated by taking different numbers each time. If the children are facing problem in telling, then do the activity with the help of concrete objects.

Conduct this activity for the concept of subtraction too.

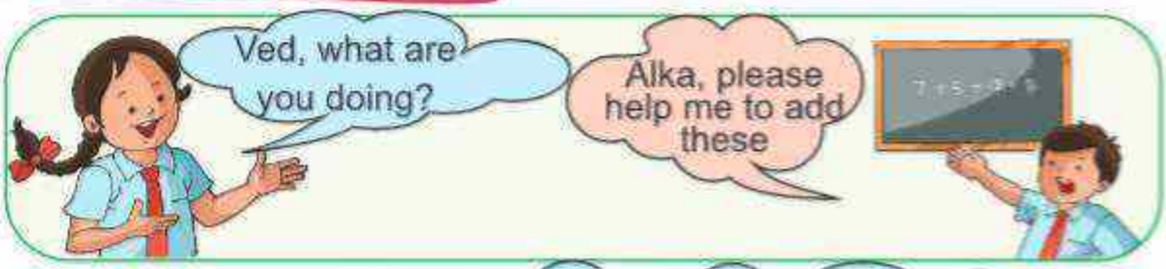
Chutki's Question

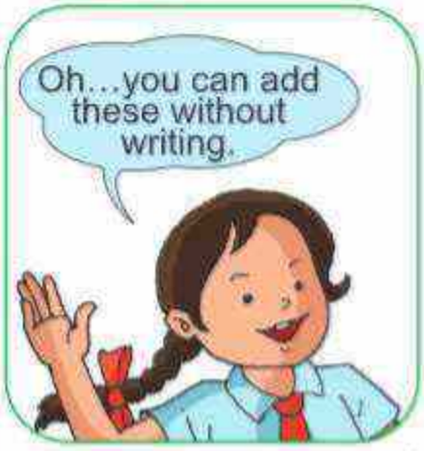
While Jumping, Titu frog reaches at the 10th stone on each jump. Help Titu to write the numbers on stones accordingly.

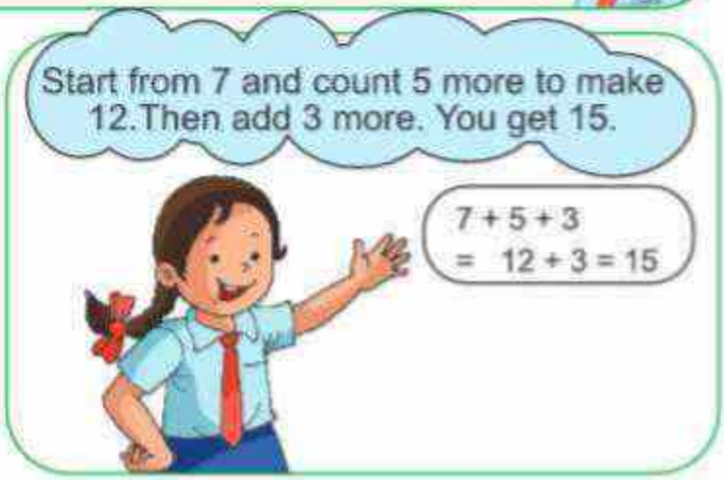


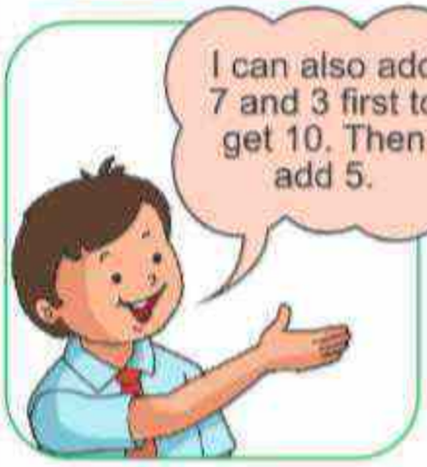
1 + 8 + 9 = ☐

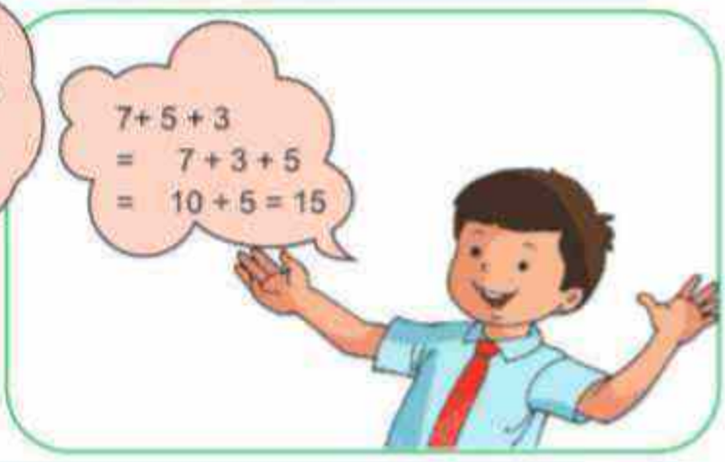
How Fast Can You Add ?











Let us do these.

5 + 5 + 7 = ☐

6 + 5 + 4 = ☐

9 + 4 + 1 = ☐

7 + 3 + 8 = ☐

8 + 3 + 2 = ☐

Let children do these sums by adding mentally. Encourage children to do addition in as many ways as they can. Let children make questions and ask these to friends to solve mentally.

10 + 8 = ☐

10 + 5 = ☐

10 + 6 = ☐

= 10 + 7 ☐

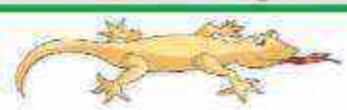
4 + 8 + 6 = ☐

3 + 8 + 7 = ☐

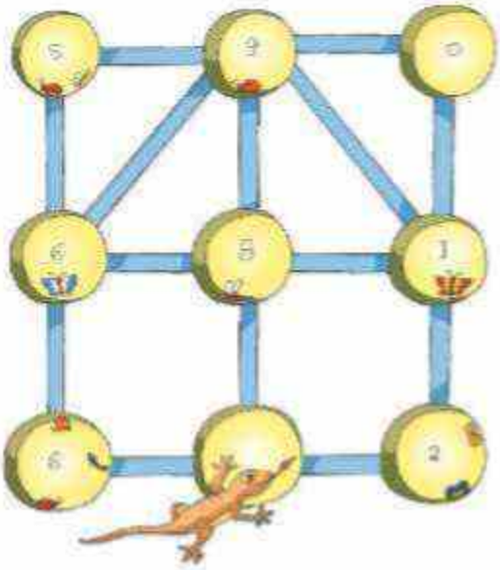
5 + 8 + 5 = ☐

8 + 9 + 2 = ☐

Hungry Lizard



A lizard moves from one hole to another. As it moves, it eats insects hidden in the hole. The number of insects in each hole is shown. The lizard can move only along the lines.



Starting from the hole in the picture, the lizard goes to three holes to eat 18 insects.

This is the path the lizard takes—

8 + 1 + 9 = 18

- What path can the lizard take to eat 12 insects?

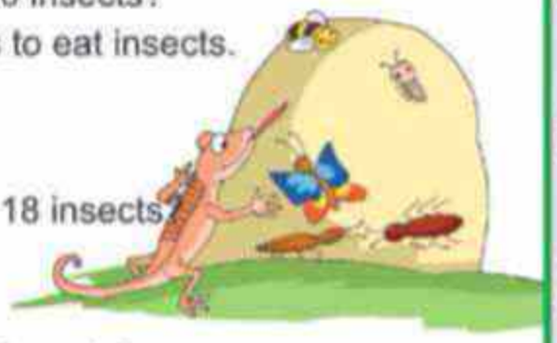
__ + __ + __ = 12

- What path can the lizard take to eat 20 insects?
  This time the lizard goes to four holes to eat insects.

__ + __ + __ + __ = 20

- What path does the lizard take to eat 18 insects?

__ + __ + __ + __ = 18



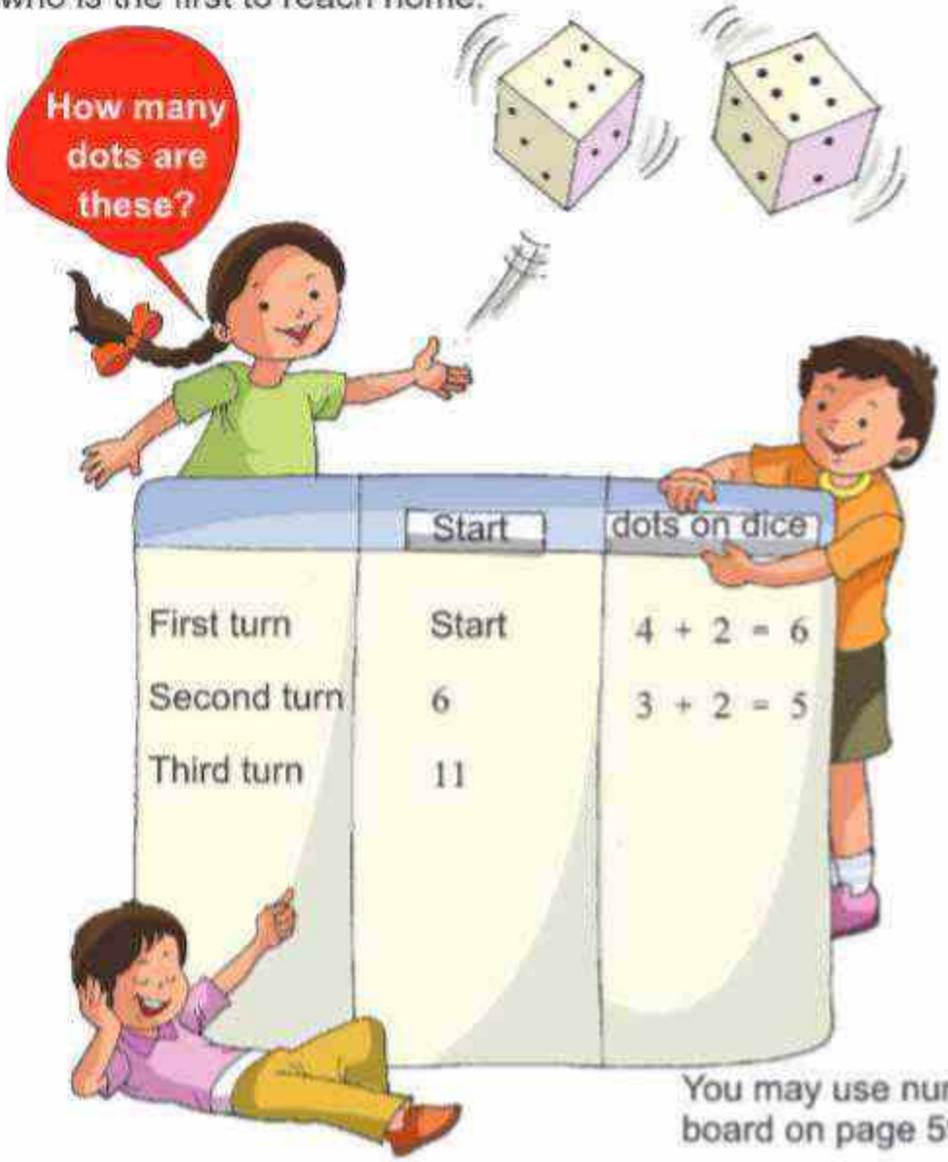
- What path does the lizard take for 12 insects?

__ + __ + __ + __ = 12

Play Time

Reena and Aamir are now playing another game on the number board—Heads and Tails. They throw two dice and add the numbers to get their points.

You too can play this game. Throw your dice and write your points. See who is the first to reach home.



	Start	dots on dice
First turn	Start	4 + 2 = 6
Second turn	6	3 + 2 = 5
Third turn	11	

You may use number board on page 59.

This record could help children check their moves. For example, they could see that, starting from one number in the left column ,they get to next by adding the numbers in the right column.

Colour and take it forward

Let us play this game in some other way.

All right, now we will move ahead by subtracting the number of dots appearing on dice.

Let students use number board given in chapter 'quick addition' and move ahead by adding the number of dots of both the dice. As soon as 30 is crossed, they move ahead by subtracting the number of dots on the 2 dice. Like if 4 and 3 comes on dice then on subtracting (4 – 3 = 1), move one box ahead.

	Reena's turn	
	Position on board	Difference of number of dots on dice
First turn	31	4 – 3 = 1
Second turn	32	6 – 2 = 4
Third turn	36	3 – 2 = 1

	Position on board	Difference of number of dots on dice
First turn	Start	----------
Second turn	----------	----------

10

Let us Count in Groups

Let us look and estimate the number.

Can you estimate how many cups are here?

3 and 3 means 6 cups, 4 cups are below. So total 10 cups should be there.

Can you estimate how many pairs of shoes are there?

There are 3 lines and in each line, there are 3 pairs of shoes. That's there are 9 pairs of shoes.

See, how different things are kept in groups. Without counting each thing, estimate their numbers.

Encourage the children to estimate the number of things around them. The objective of this activity is to make children familiar with the ways of counting things in groups just by observation.
Border can also be used for counting in groups.

Colour and take it forward

Rani's necklace

Rani's necklace is broken and all the beads spread away.

Find out how many beads are there .....

Rani's friends counted like this:

In the same way, you also count the beads in as many different ways as you can.

Discuss that counting in groups is quicker than to count one by one.
On border, let them count in groups in different ways. In a given time, who finds more ways will be winner.

How many branches and how many leaves?

In one branch, there are 2 leaves.

Branches = 4.

Leaves = 2 + 2 + 2 + 2

How many 2 = ☐

Branches = ☐

Leaves = 2 + 2 + 2 + 2 + 2

How many 2 = ☐

Branches = ☐

Leaves = ...

How many 2 = ☐

Chutki's question

Can you tell, how many people have left there shoes? ☐

How many pairs of socks in hang. ☐

How many in box?

Everyday Meena puts 3 coins of ₹ 1 in a box.

After 5 days, how many coins would be there in the box? .....

After 10 days, how many coins would be there in the box. .....

You also make such questions and ask your friends.

If four coins of ₹ 1 are put everyday in the box then after 5 days, how many coins would be there in the box? .....

Chhutki's question

Take it forward.

Play the coins activity with the children using coins given in the end of the book. Let children count in groups of 3 or 4 on border.

11

The Longest Step

Three friends – a rabbit, an elephant and a deer were playing together in a park.

They started the game.

Surprisingly, at the end, the elephant won.

- Can you tell why the elephant won?
- Who takes the longest step?
- Do role play for this story.

Can you tell from the story?

Longest step	Middle step	Smallest step

Can you also do it in your groups?

Form groups of 5-5 children. Ask each group to see who goes the farthest in 4 steps. All move together in a line. Discuss who remains ahead and why?

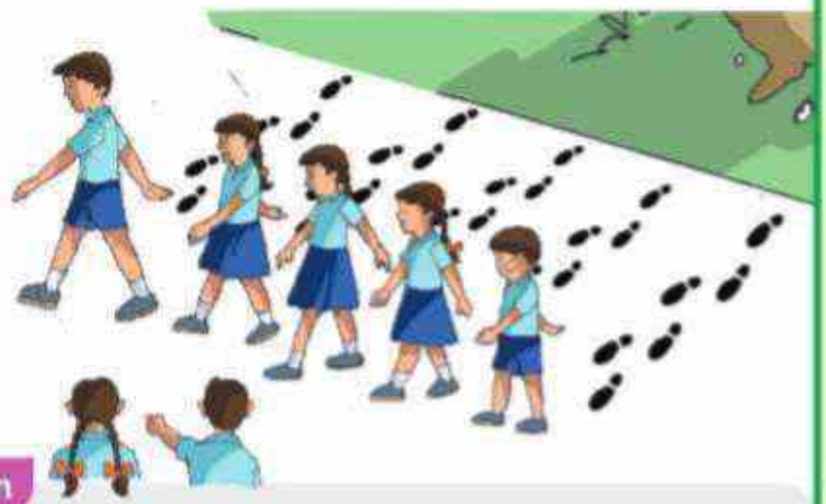
Let us see, who in your group has the longest step and who has the smallest? Let us find out by measuring in handspan or by drawing lines.

Who has the longest step?

.....

Who has the smallest step?

.....



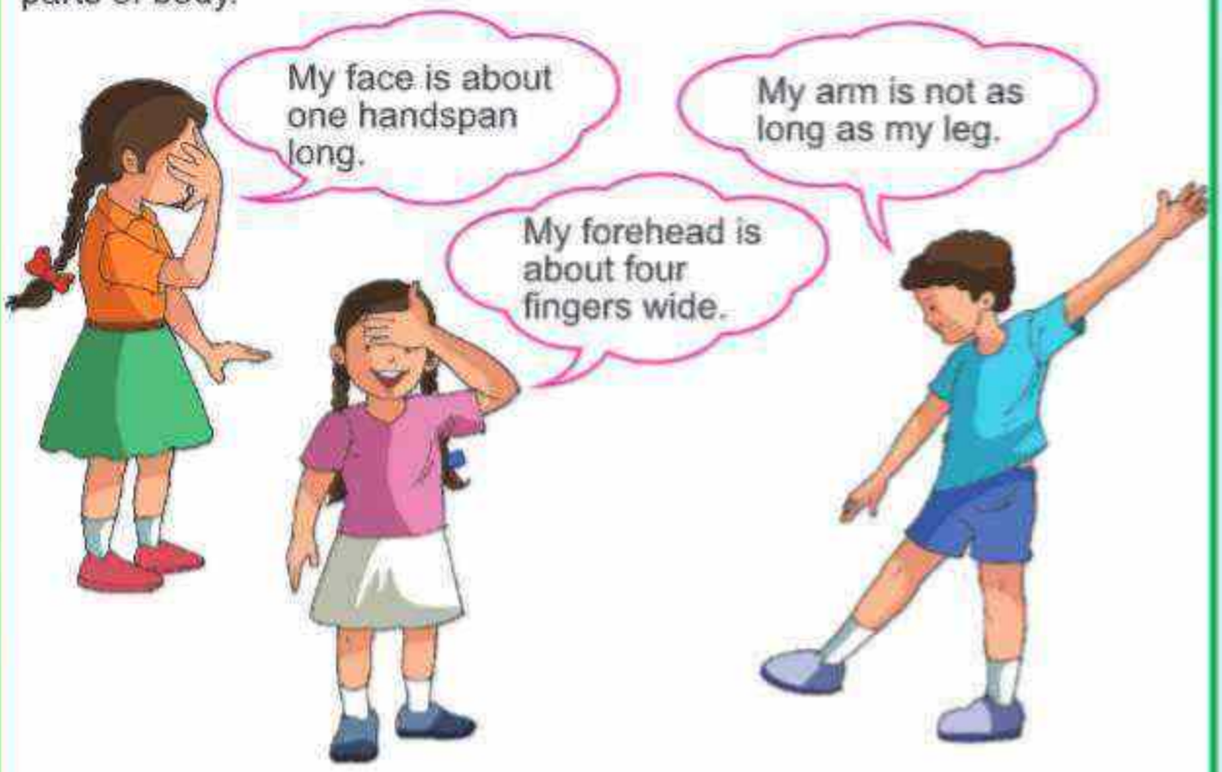
Chatlu's Question

They all are going to the same place.

Can you tell who will reach first?

Let us measure our body

Sanju and her friends were trying to find out the length of their different parts of body.



* Do you agree with whatever they said? Try it.

Body parts	My estimate	Measure
Sanju' s forehead	5 fingers	4 fingers
My forehead		.....
My nose		.....
My leg		.....
My face		.....
My arm		.....

Match, What you used to measure?

Forehead	Handspan
Arm	Fingers
Hand	Handspan
Leg	Fingers
Nose	Fingers
Face	Fingers

* Let children first estimate and then verify.

Form two groups of children. First group will make estimation about distance or length and the other group will check it (With the help of fingers, handspans, sticks or steps) and then fill it in the following table.

Let us fill the table.

Things in the class room	Estimate	Correct measure
Blackboard	..... Handspans	
Table	..... Handspans	
Window	..... Handspans	
Bag	..... Fingers	
Hindi Book	..... Fingers	
Pen	..... Fingers	
Front wall of the Room	..... Steps	
Pencil	..... Fingers	

Make groups of students and let them stand in a queue. Ask any child from the groups to throw an object or chalk at some distance. All other members of the group will make an estimation of the distance, then find the actual distance using steps or any other way.

Let children estimate tails of rats on border whether longer or smaller than handspan. Also estimate using fingers as unit and check.

Where is the mouse with long tail?

..... handspans

- Use your fingers to find out the distance between the rat and the milk.

  .....

- How far is the cat from the rat? .....
- How far is the cat from the milk? ..... fingers
- Where will the cat reach first — the rat or the milk? .....
- How long is the rat's tail? ..... fingers
- Can the rat save itself ? How?

10 handspans

Let children estimate the tails of rats using fingers.

Let us Measure and Draw

- Draw a leaf, 2 fingers away from the stone.
- Draw a banana, 5 matchsticks away from the monkey.
- Draw a kite, 7 fingers away from the stone.
- Draw a cloud, 3 matchsticks away from the kite.
- Draw a bird, 4 fingers away from the banana.

Draw yourself anything you like on the page. Find how far it is from the monkey's nose.

Let children measure tails of monkeys on border.

12 Days and Months

R1S6V3

See the ants move in line.
See their houses, are they fine.

See their godown which is filling every day. Whether you see on Monday, Tuesday, Wednesday

If possible see on Thursday.
All are working full day.
If no time on Friday, Saturday
Then you see on Sunday

See the ants move in line.
See their houses, are they fine.

Tuesday
Monday
Friday
Sunday
Wednesday
Tuesday
Thursday
Thursday
Saturday
Wednesday

Let children write number of students present in the class during one week in boxes given below the name of each day.

Discuss with children about the school mid-day meal and days of the week, for example, which day is today? What did you eat yesterday in mid-day meal and what day before yesterday? On which days you eat Daliya? On which day, you eat *Rajma Chawal*?

Table of Mid-day meal.

Discuss with your classmates, what did they eat on different days? For example *Daliya, Khichdi, Pulav, Roti-sabji, Daal-roti, Mithe-chawal, Kheer, Chole-chawal* etc.

Day	Mid-day meal
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	(at home)

Discuss- what was made in mid-day meal on third day of week?
What was the name of the day on this day? What was made on Tuesday? Which day of the week it was? On which day you liked the food the most? Which day of the week it was?

Match

Day-name	Day-number.
Sunday	first day
Wednesday	second day
Friday	third day
Monday	fourth day
Tuesday	fifth day
Thursday	sixth day
Saturday	seventh day

Let children fill the blank on the border.

Make groups of 6-6 students and start the game. Each child of every group gets a chance on a day to become teacher for some time (one period).

Day	Teacher
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	(Holiday)

Now fill in the blanks—

1. ..... became teacher on third day of the week and it was .....

2. ..... became teacher on day before Tuesday and it was .....

3. ..... became teacher day after Wednesday and it was .....

Which day, what's special?

Teacher first discusses and then asks to fill table.

What's special	Day's name	Day's number
Games		
Library		
Baal Sabha		



Favourite month

In whichever season you start this chapter, discuss about that season, for example, what type of water (hot or cold) what kind of clothes you wear in this season? What type of water you use to take bath? Which vegetables do you eat? In this way talk about other seasons too.

One day Arjun, Sona, Saleem and Maria were discussing on their favourite months.


My favourite months are May and June. I can eat mangoes in those months.

I like july & August because it rains in these month.

I eat Jamuns in the holidays of June very much.

I like December, in this month, I enjoy sleeping in blankets.


- Which month do you like most? .....

  Why? .....

- What would you like to do in your favourite month? Discuss.

What, in which month?

Match


December, January

May, June

July, August


January, February

14th November
Children's Day

15 August
Independence day

8 March
Woman Day

2nd October
Gandhi
Jayanti

April
Crop Cutting

July
Rainy
Season

13th May
Mother Day

March
Holy

17th June
Father Day

5th September
Teacher Day

January

Mon	Tue	Wed	Thur	Fri	Sat	Sun
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

First

February

Mon	Tue	Wed	Thur	Fri	Sat	Sun
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

Second

March

Mon	Tue	Wed	Thur	Fri	Sat	Sun
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

April

Mon	Tue	Wed	Thur	Fri	Sat	Sun
30						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

Fourth

May

Mon	Tue	Wed	Thur	Fri	Sat	Sun
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

June

Mon	Tue	Wed	Thur	Fri	Sat	Sun
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

July

Mon	Tue	Wed	Thur	Fri	Sat	Sun
30	31					1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

Seventh

August

Mon	Tue	Wed	Thur	Fri	Sat	Sun
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

September

Mon	Tue	Wed	Thur	Fri	Sat	Sun
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

October

Mon	Tue	Wed	Thur	Fri	Sat	Sun
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Tenth

November

Mon	Tue	Wed	Thur	Fri	Sat	Sun
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

December

Mon	Tue	Wed	Thur	Fri	Sat	Sun
31					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Twelfth

Discuss pattern, interesting sum of four numbers, speak two or three next numbers in column. Which month you like most and why, among March, April, September, October?



Discuss, in which months you feel warm or hot and which fruits and vegetables you get more in these months? Encourage children to get information on hot season from their surroundings.

Name two months of summer— 1. ..... 2. .....

What things you get more, in summers. Tick them (✓)—

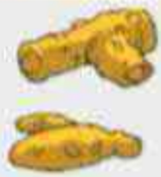













Discuss, in which months you feel cold, and which fruits & Vegetables you get more in these months? Encourage children to get information on this for their surroundings.

Name two months in which you sleep taking a blanket?

1. ..... 2. .....

What things you get more, in winter. Tick them (✓)—













Birthday

A day before starting talk on birthdays, ask all children to know about their month of birthday from parents.

Next day have a talk and make a chart in which children will one by one come and write their name in the month, in which their birthday lies.

Vaibhav's birthday lies in the month of May. In which month, your birthday lies? Write your name in front of that month in the table. Ask your family members and friends about their birthday month and fill it in the table.

Name of month	Name	Number of days in that month
January		
February		
March		
April		
May	Vaibhav	31
June		
July		
August		
September		
October		
November		
December		

How many days in your birthday month? Know by looking at calendar. .....

Discuss with children that how many days have they written in front of the month in which their birthday lie. Now with the help of students fill number of days in each month in the birthday chart of the class.

Fill this also

- Sangeeta's birthday lies in the month next after March, but she has forgotten the name of the month. In which month her birthday falls, fill red colour in that month on the birthday chart.
- Chiki's birthday comes in a month exactly before June. Name the month?

  .....
- Sonu's birthday is in April. He went to his Massi's house two months before birthday. In which month he went there? .....

What, in which months

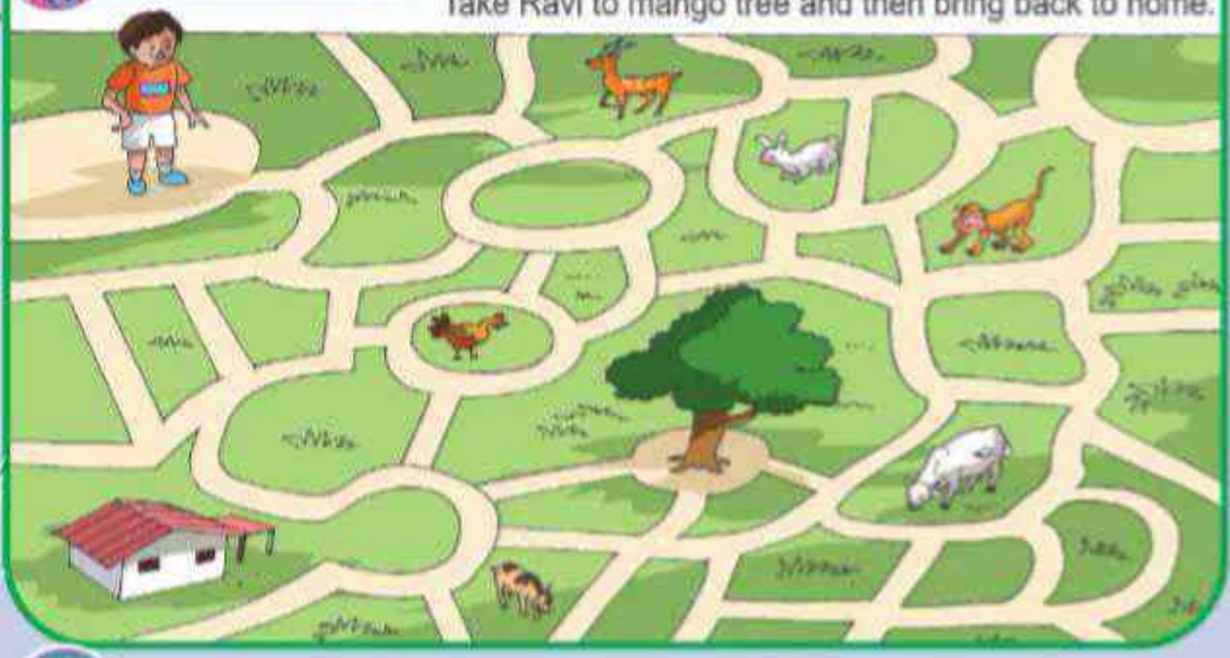
Form 6 groups of students. Allot two months in each group, for example, January-February to first group, March – April to second group and so on. Ask each group to get full information about their respective two months. For example, fruits and vegetables available in those months, kind of clothes people wear in those months, what type of food people eat. How many days in those months, number of Sundays in those months? Number of students in group whose birthday lie in any of these months. Encourage children to look for calendar.

Write the collected information, in the table below.

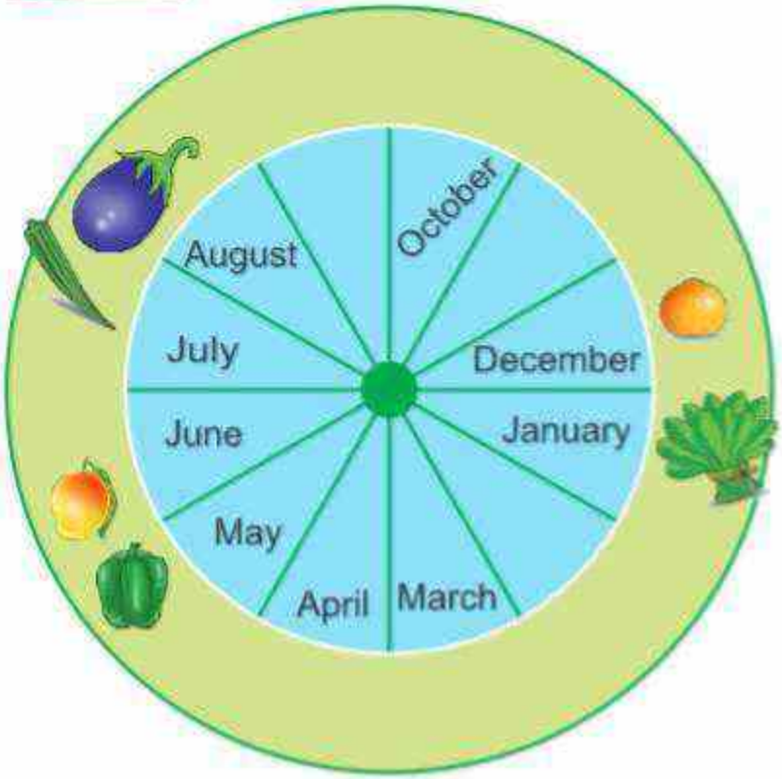
Name of months (your group)	
Fruits & Vegetables	
Clothes	
Festivals	
No. of Sundays	
Birthdays of children	
Other information	

Chutki's Questions

Take Ravi to mango tree and then bring back to home.



Fill in the missing



Let us fill the table

	It is my favourite.	It is available in these months.
Fruit	----------	----------
Vegetable	----------	----------
Flower	----------	----------

Write names of festivals which you and your friend celebrate? Write the names of those months in which these festivals are celebrated.

Name of festival	Month in which it is celebrated

How many days?

Ask children to bring moong or Chana and Soak it in water or ask children to soak it at home. Let children observe, how many days it takes for moong or chana to germinate. Children can also do observation by sowing it in soil and see how many days it takes to change seed in to a plant. Discuss it also.

Gagandeep soaked Chana on Sunday and they germinated on Monday. You can also try it and write the changes.

Day you soaked moong/chana seed. .....

Day on which moong/chana seed germinated. .....

Days it took to germinate. .....

Day on which a plant came out. .....

Days it took for plant to come out. .....

Chuutki's Question

Rajan sits in train on Wednesday to leave for his mama's house, and on Thursday he reaches Mumbai. How many days it took? (Ask some more questions)

Take it forward

13

U8X5V7

Give and Take

Sushila was collecting money in her piggy bank for the fair since many days. Today is the day of fair. Sushila opens her piggy bank and finds many notes and coins.

Help Sushila to count the notes and coins which are taken out from the piggy bank and write it below.

Coin	How many	Note	How many
			
			
			
			

For the fair, Sushila took out ₹ 45 from piggy bank, like this—

10 10 10 5 5 2 2 1

If you want to take out ₹ 25 from the piggy bank then which notes and coins will you take?

Along with Sushila, her three friends Punita, Chinku and Golu are also going to fair.
Chinku took out ₹ 23 from piggy bank. If he took 2 notes and 2 coins, can you tell which notes and coins he has taken out?

Punita's father gave her ₹ 37 for the fair. If you were at his place, then which notes and coins would you give?

Suggest him another combination of coins and notes to get ₹ 40.

10 10 10 10

Is there any other way also? Discuss and write.

....

....

Divide the students in groups and provide them dummy currency. Now discuss the ways which they have used to take out money from the piggy bank using dummy currency.

Sushila reached at fair, she saw toy's shop.

Sushila bought toys of ₹ 45.

Find out. Has she paid right amount of money to shopkeeper for the toys. Write name and price of these toys? If you have to buy toy of ₹ 40 then which toys will you buy? Write the name and price of these toys?

.....

Punita bought a bus. She gave notes and coins like this. If you have to buy a joker toy which notes and coins would you give.

.....

If you have to buy joker's cap and balloon then which notes and coins would you gave.

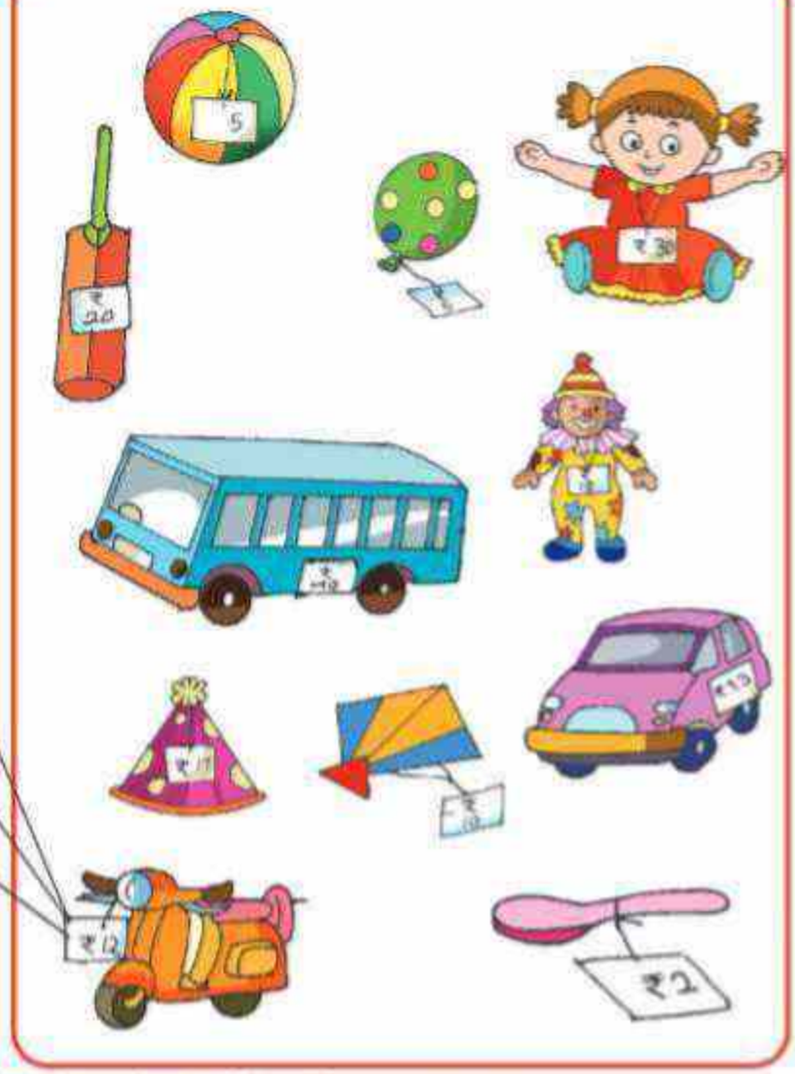
.....

If you have to buy a doll which notes and coins will you give?

.....

Children can use dummy notes and coins which are attached at the end of the book and let them recognise the real notes.

Match the toy with notes and coins according to their price.



You can also do this with your friends.

Try alternate ways and match them from notes and coins in borders also.

Mat Game

Divide the children in groups of 3-4. One child from each group will keep all notes and coins with her (will act as bank) and rest of the children in group will play by number cards. Each child should have cards from 1 to 9. All children of group will place their number cards turning upside down in the centre. Now one by one they will flip the cards.

The number card which comes, if it is already present in the flipped number cards then he/she will pick up that card. He/she will pick up those number cards also whose numbers sum gives the number that one his/her flipped card has. In case, there is no such case, he/she will flip the card and keep it there itself. For example, if a child gets number 8 on his card, then if numbers card with number 8 is already present on the flipped cards then he/she will pick it up, or he/she will pick up those cards which sum up to give 8 such as 6 and 2. He will also collect ₹ 8 from bank after giving the card. During game, she will exchange smaller notes or coins with ₹ 10 note or coin. Whenever child gets notes or coins from bank, he will write the same in notebook. In the end, child with more notes or coins will be winner.

Now do this also

- Seema bought vegetables from a hawker and she has to give ₹ 17 to hawker. She had ₹ 50 note. Hawker did not have change of ₹ 50. Seema went to a nearby shop to get the change of ₹ 50. Change of ₹ 50 has been done in the following three ways.

1. 

2. 

3. 

To give ₹ 17 to hawker which notes and coins will she take?

If she has to give ₹ 15, then from given above which notes and coins (change) will she take?

- Today in shop, Cheeku and Meeku are sitting at father's place. Just then Ramu chacha came to get change of ₹ 50 Cheeku and Meeku take out money from cash box in their own way; as shown.

From the change money of Cheeku and Meeku, which money would Chacha take?

.....

And the one, which was not taken, what was wrong in that?

Let us try

- Sheela bought some things for ₹ 50. She gave two types of notes which were only of ₹ 10 and ₹ 20. She gave ₹ 50 like this—

If ₹ 30 has to be given and you are asked to give only two types of notes and coins, then how will you give?

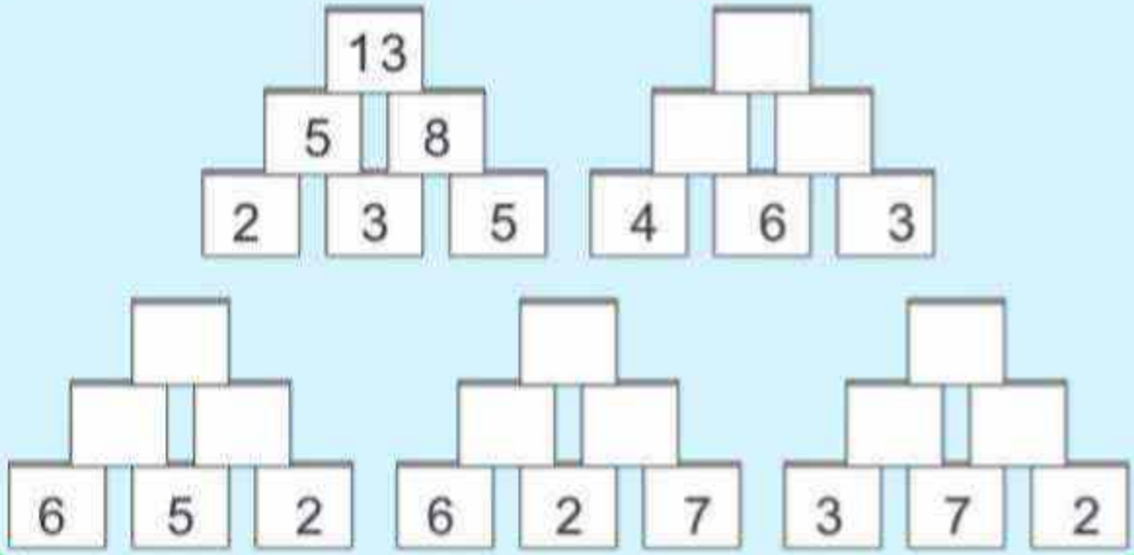
- Two coins of ₹ 10, One note of ₹ 20.

- 4 coins of ₹ 5 and one note of ₹ 10.

- One note of ₹ 20, 4 coins of ₹ 2 and 2 coins of ₹ 1.

Chutki's question

Make Number Tower



14 Garlands and Flowers

Banno's Wedding

Cat Raano and Dog Bhuru were playing rope-jumping on the roof. Raano cat did 15 jumps in first round and 13 jumps in second.

According to you, how many total jumps?

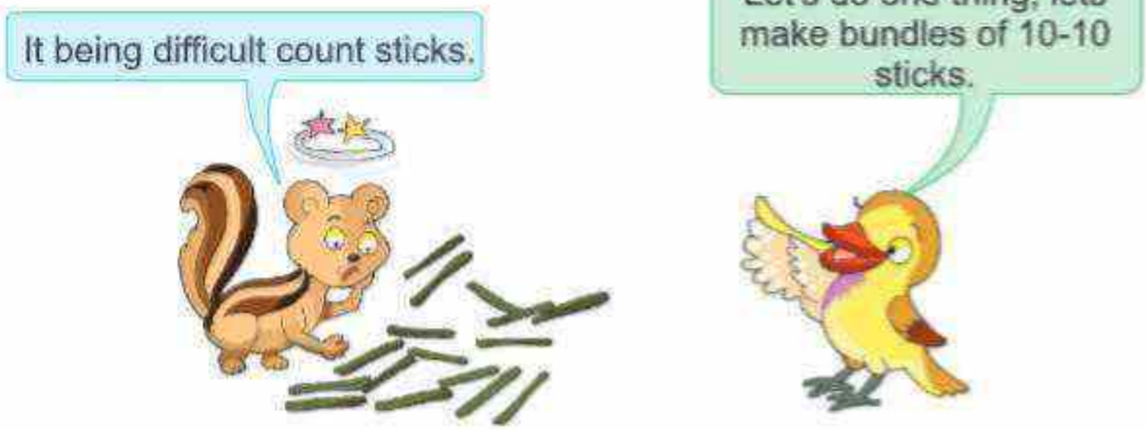
How you did?

Let children do it themselves and find out how did they do it?

	Boxes	Laddoos Left	Total laddoos
Raano has	.....	.....	.....
Bhuru has	.....	.....	.....
Both of these have	.....	.....	.....

Let children count dots of different colours on border using groups of 10.

Squirrel Ginni and her friend started to collect sticks to make ice creams.



They started making bundles of 10-10 sticks. You also help them to collect sticks.

Ask each child to collect 10 to 30 sticks and bundle them up in groups of 10-10 each. Also ask them, how many bundles and loose sticks do each one of them has? Now pair them up in groups of two and now ask them how many total sticks they have? How many bundles and loose sticks? Discuss on the responses received. This exercise can be done again and again by changing the number of sticks. Observe that whether they in groups are able to bundle the loose sticks together or they use some other way to tell the total number of loose sticks. Let children themselves reach to bundling the sticks.

Squirrel gini and chichi sparrow have also collected sticks. Can you tell, how may sticks have they collected together in total?

	Bundle	Sticks
Squirrel has	.....	.....
Sparrow has	.....	.....
Both together have	.....	.....
Total sticks	.....	

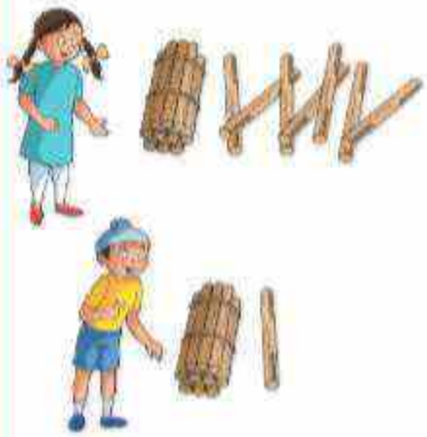
Let children count drops.

How many sticks they have

Let us find total sticks

Sahil has	3	1
Chinu has		
Both together have		

Total sticks ----------



Shabina has		
Hardeep has		
Together have		

Total sticks ----------

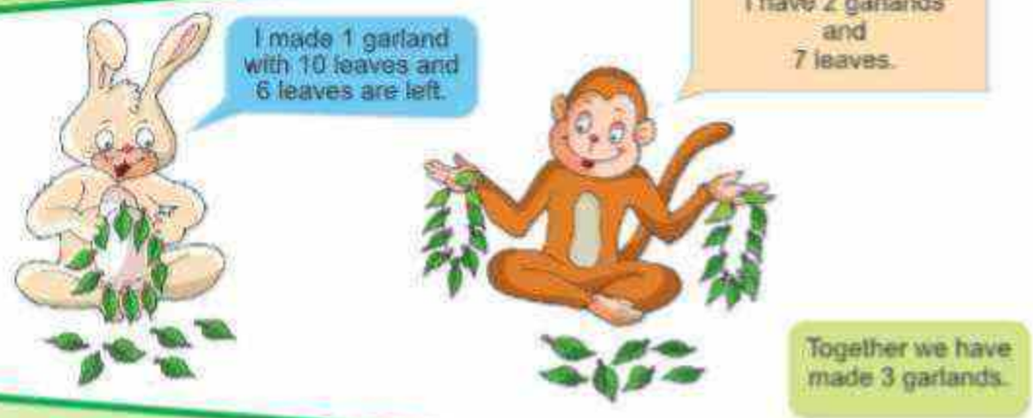
Chutki	2	5	Chinki	3	5	Tinku	2	
Chatlu +	3	4	Leena +	2	3	Cheeku +	4	
Together			Together			Together		

Try to add on border also.

Now let us do these also

Friends of Bhuru, Bunnu Rabbit and chhutku monkey or making gardands of leaves for decoration. They are putting 10-10 leaves in one garland.

Bunnu Rabbit has 16 leaves. Chhutku monkey has 27 leaves.



- Can you tell how many leaves are left with them together ?

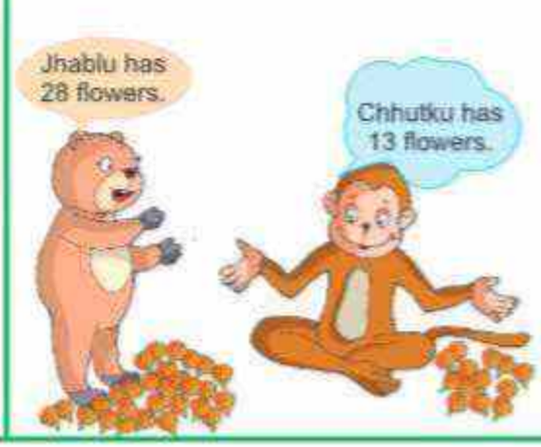
.....

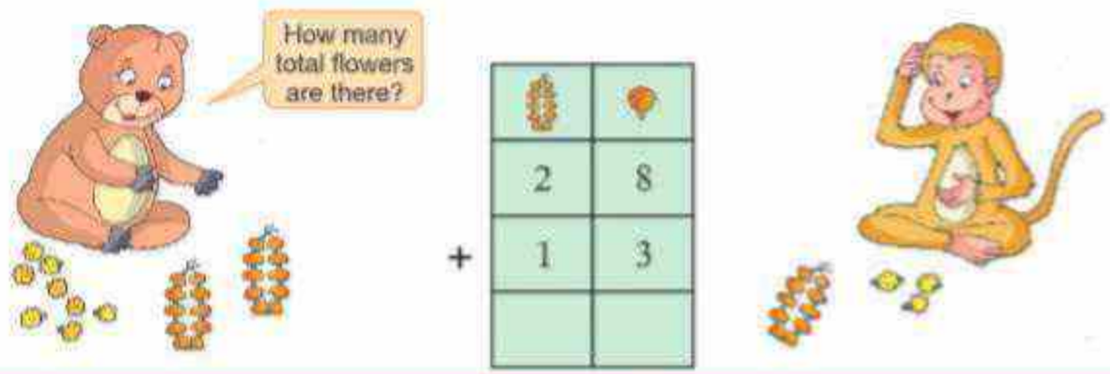
- How many maximum number of garlands they can make together and how many leaves will be left ?

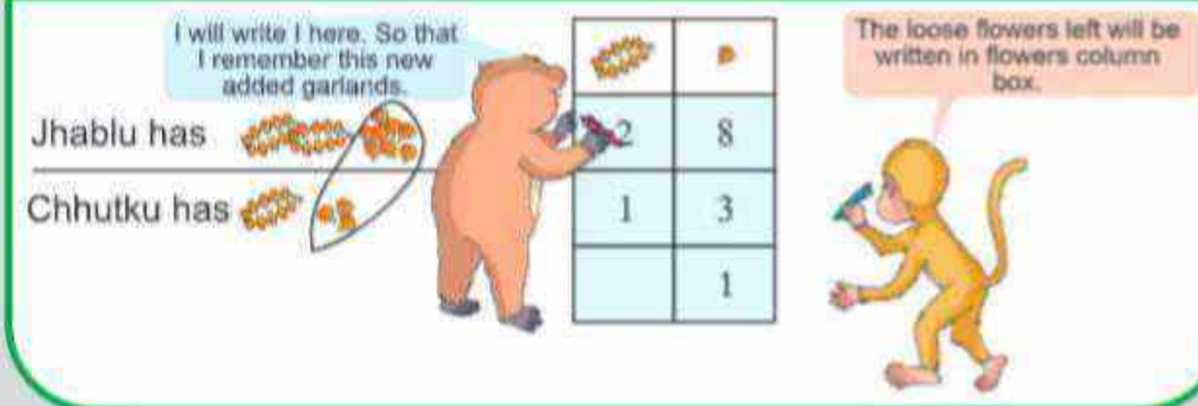
.....

Try on border also.

Then Jhablu came,







12	8
1	3
4	1

Can you do this using some other way?

Discuss about some other way of doing for example, if Chhutku gives 2 flowers to Jhablu then total will we 30 +11 = 41 flowers.

Now, try to do these.

(A)

Jhablu	1	8
Bunnu +	2	5

(B)

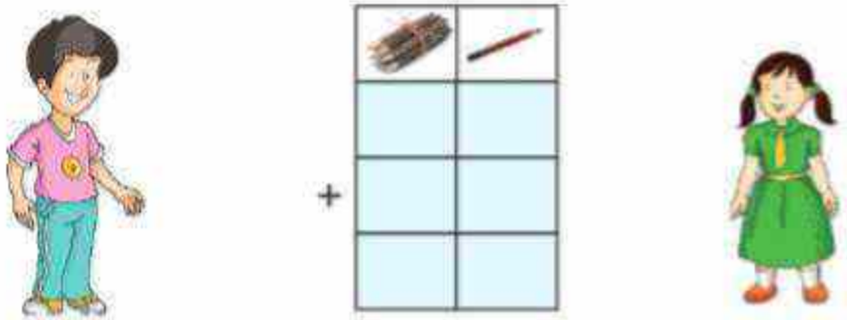
Chiku	1	7
Miku +	2	5

Try to find out, how many flowers are on left hand side and right hand side on the border?

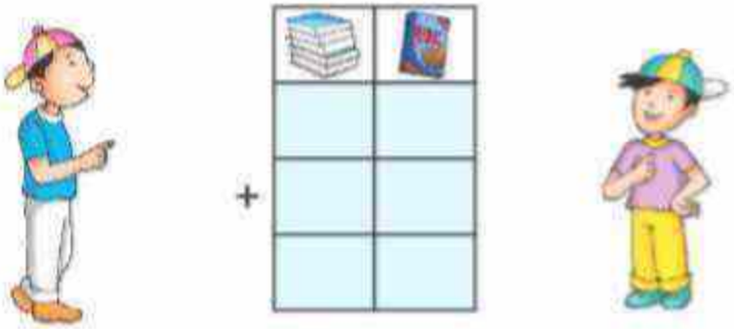
Chutki	2	4
Chatlu +	3	6

Chatlu	3	2
Patlu +	1	8

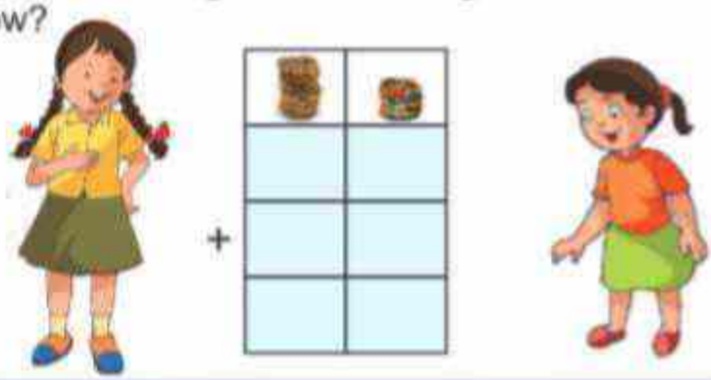
Arvind used 13 pencils and his sister used 14 pencils in previous class. How many pencils they used altogether?



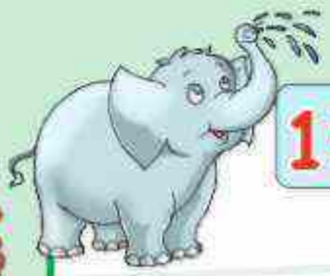
Chinu had 18 books. Miku had 15 books, How many books they have altogether ?



Seema had 18 bangles. Her friends gave her 14 bangles more. How many bangles Seema has now?



Try on border making different pairs.

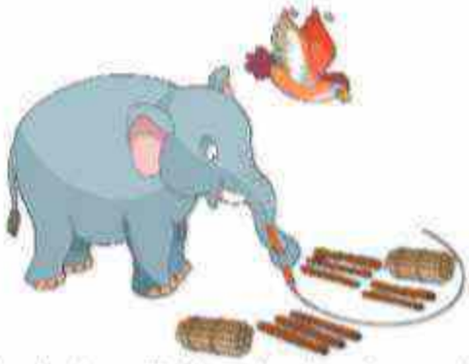


15 How Many?

Children can play this game in groups of four. One child of one group will keep some bundles and sticks and speak the number after counting the sticks. Now rest of the children from that group can discuss and speak a number less than the number spoken by first child. Now first child will give the same number of sticks and will speak the number of sticks left with her. In the same way each child from the group on her turn will keep some bundles and some loose sticks with her and speak the number after counting them. Remaining children will speak the number less than that number. The game will continue in this way. Correct answer will be given marks.

How many sticks left

Chi Chi sparrow and Ginni squirrel collect sticks from Jungle (Forest). Chi Chi sparrow has 28 sticks. Petu elephant borrowed 15 sticks from Chi Chi to make ice-cream. Now find out the number of sticks remaining with Chi Chi.



Chi Chi has	2	
Borrowed by Petu	1	
Remaining with Chi Chi		

Next day Petu elephant again required sticks to make ice-cream. He met with Ginni on the way who had 35 sticks. Petu borrowed 22 sticks from Ginni. Now tell, how many sticks left to Ginni ?

Ginni has		
Borrowed by Petu		
Remaining with Ginni		

Let us find out what is left

Ginni has	2	6
Borrowed by Petu	1	6
Remaining with Ginni		

Chi Chi has	4	1
Borrowed by Petu	2	1
Remaining with Chi Chi		

Ginni has	2	5
Borrowed by Petu	1	2
Remaining with Ginni		

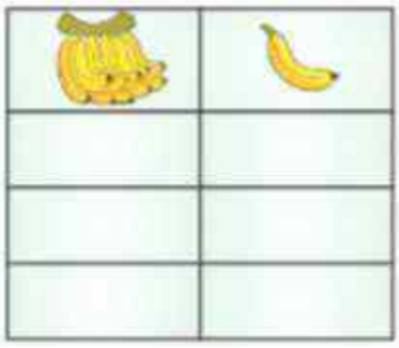
Chi Chi has	3	6
Borrowed by Petu	1	2
Remaining with Chi Chi		

Also try these

- Petu elephant ate 36 bananas.

  His friend Matku elephant ate 25 bananas.

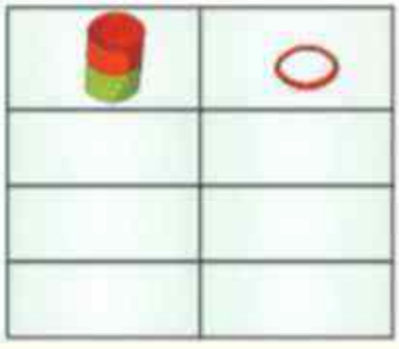
  How many more bananas eaten by Petu than Matku ?



- Chanchal had 48 bangles.

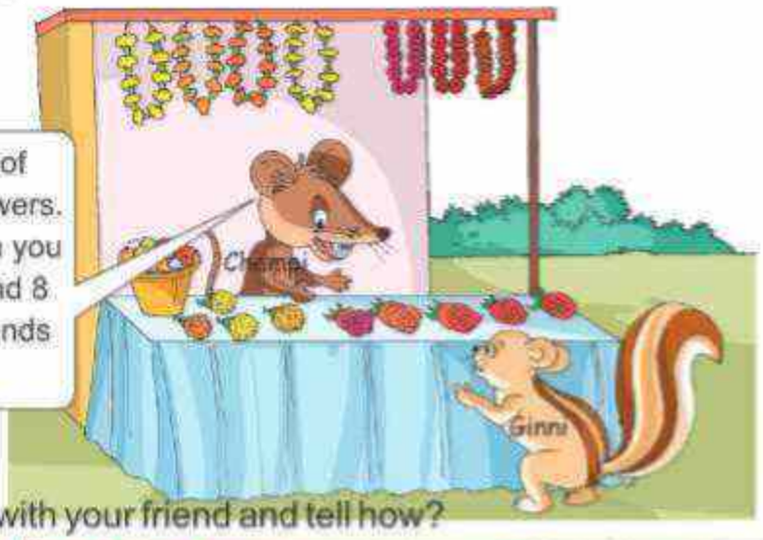
  She gave 12 bangles to her friend.

  Now how many bangles left with Chanchal ?

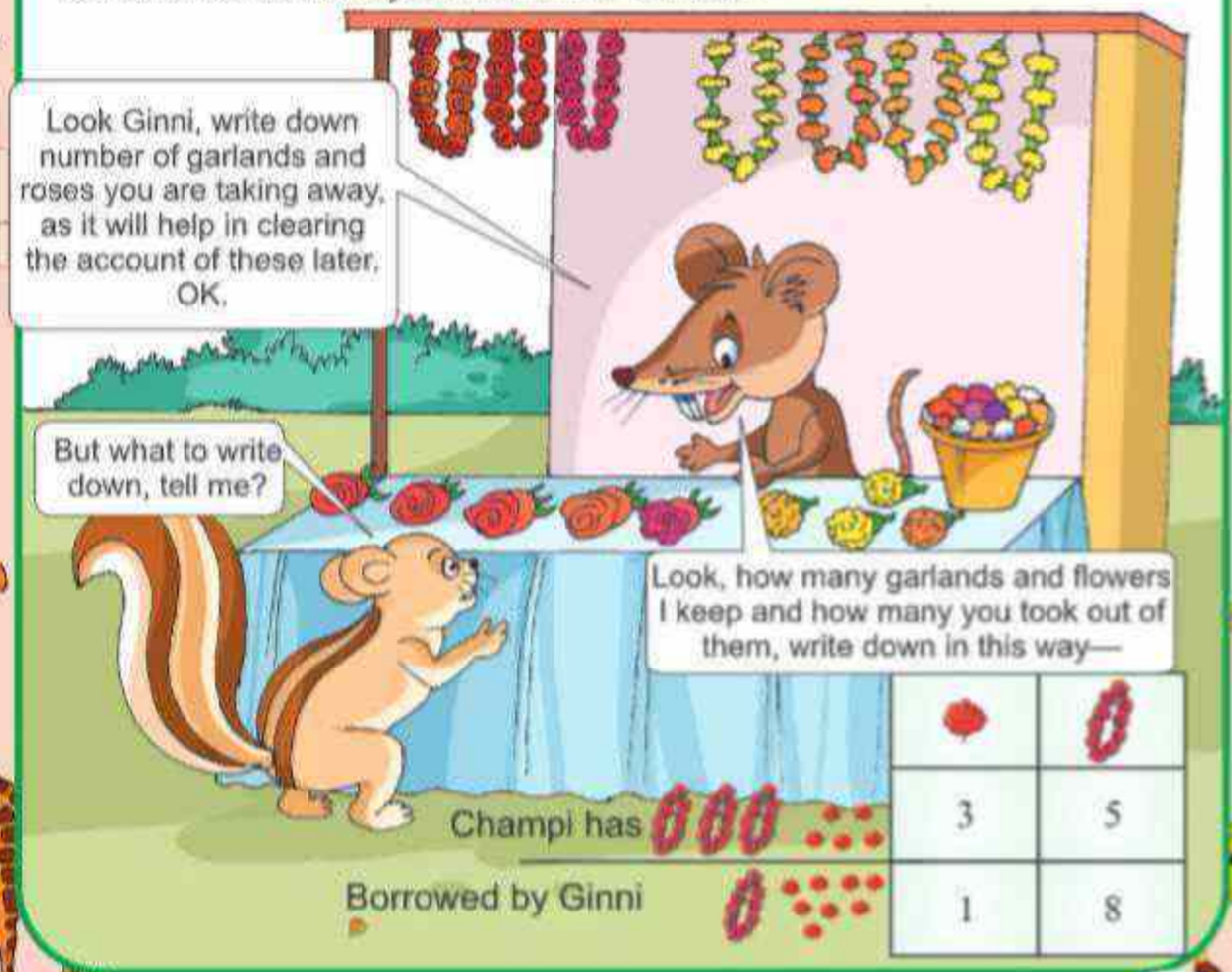


Use border for making different questions for subtraction on each side in pairs.

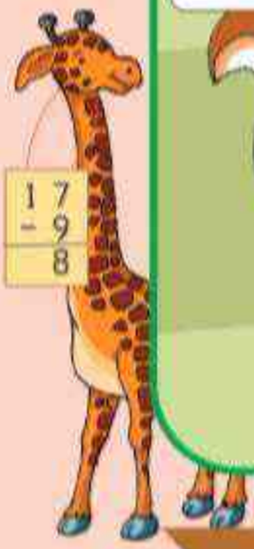
Today is Matku elephant's birthday so he is very happy. His friend Ginni squirrel is decorating the house. She went to Champi Mice's shop to buy one garland of roses and 8 loose roses.

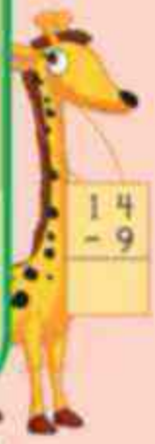


You also discuss with your friend and tell how?

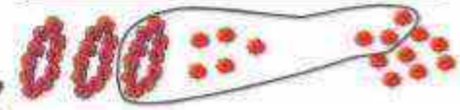


3	5
1	8



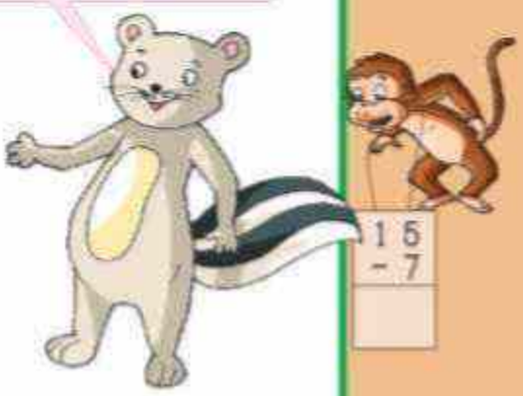


Come, let us calculate how many flowers and garlands will remain with me.



See, for this I will have to open one garland and I will get 10 roses. I have already 5 roses. Now I have total 15 roses.

But you have only 5 flowers, how can I take 8 of them?



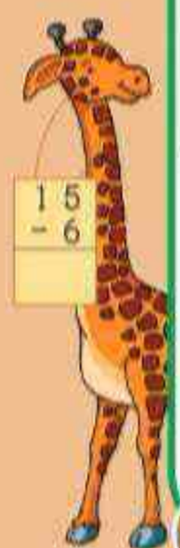
I will cross 3 and write a small 2 as two garlands are left.

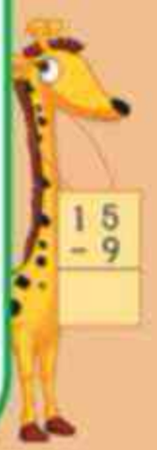
0	•
2 ~~3~~	1 5
1	8

It happened easily now, I take away 8 flowers from 15 flowers and one garland from left garlands.

0	•
2 ~~3~~	1 5
1	8
1	7

Now I am with one garland and 7 flowers i.e. 17 flowers in all.





How Many Flowers Left

Champi has 4 garlands of marigold flowers and 3 flowers of marigold. Jhablu has to take 2 garlands and 6 flowers out of these. How many flowers will be left with Champi ?

	0	•
Champi has	4	3
Taken by Jhablu	2	6
Left with Champi		

	0	•
Champi has	2	3
Taken by Jhablu	1	6
Left with Champi		

	0	•
Champi has	3	2
Taken by Jhablu	2	5
Left with Champi		

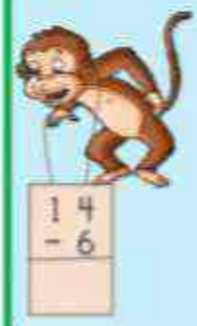
Chutki's Question

Make ring on different.

Try these

- Kajal has 25 bangles and Rani has 16 bangles. How many more bangles does Kajal have?

2	5
1	6

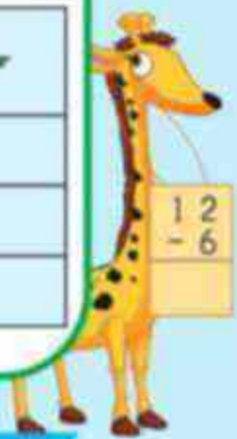


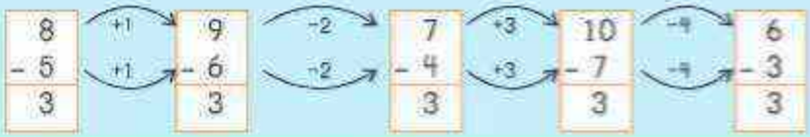
- A school library has 55 books. Out of those, 27 books were taken away by students. How many books are left in the library?

5	5
2	7

- Meena distributed toffees in class on her birthday. She had 45 toffees. She distributed 26 toffees in the class. Now find out how many toffees are left with Meena ?

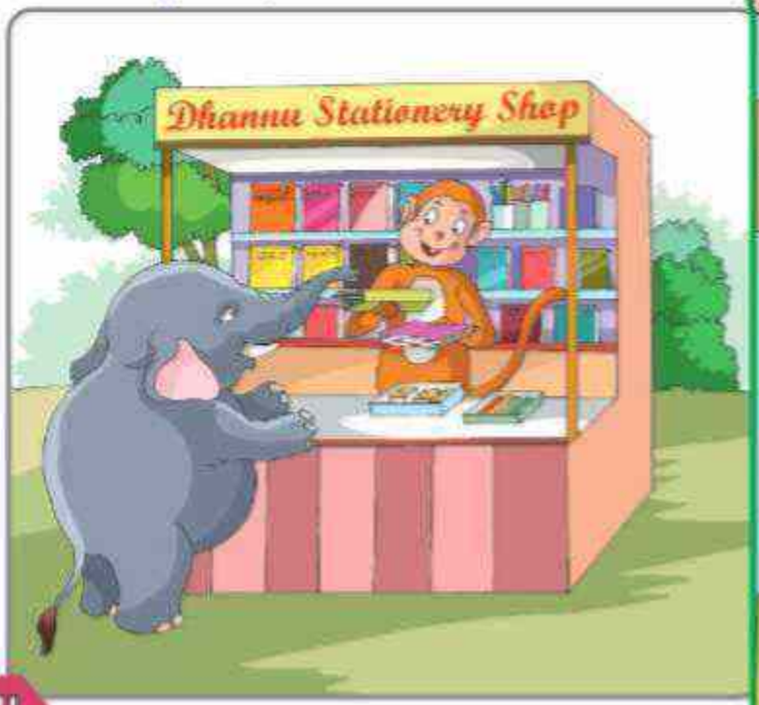
- Priya collected 33 leaves to make garland. Sandeep collected 24 leaves. How many less leaves are collected by Sandeep than Priya ?





Stationery Shop

Dhannu monkey runs a stationery shop. In this shop, only notes and coins of ₹ 10 and ₹ 1 are used and also does not accept 9 or more coins of ₹ 1.



Account of Elephant Bholu

Bholu bought a pencil box of ₹ 8 and a book of ₹ 13. How many ₹ 10 notes and ₹ 1 coins will be given to Dhannu.

2	8
1	3

Bholu gave ₹ 50 to Dhannu. How many rupees will be given back by Dhannu to him.

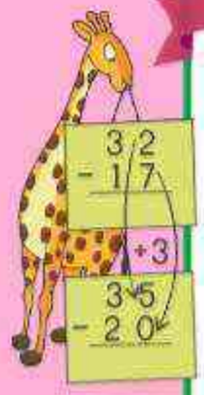
5	0

Discuss that how many notes/coins of ₹ 10 and ₹ 1 will be used for ₹ 28. Let the children use the play money notes/coins of ₹ 10 and ₹ 1 to solve the above questions. Observe whether children use note of ₹ 10 for 10 one rupee coins or not. Ask more problems like the question given above. Motivate the children to ask the questions from each other in groups.

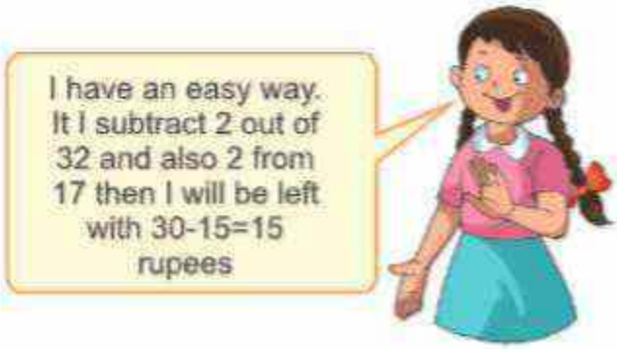
8	+1	9	-2	7	+3	10	-4	6
- 5	+1	- 6	-2	- 4	+3	- 7	-4	- 3
3		3		3		3		3

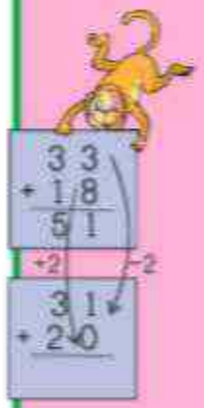
Before discussing the easy way, ask children to try some other way. Shekhar has ₹ 32. He bought balls for ₹ 17. How many rupees left with him?

Try to Solve



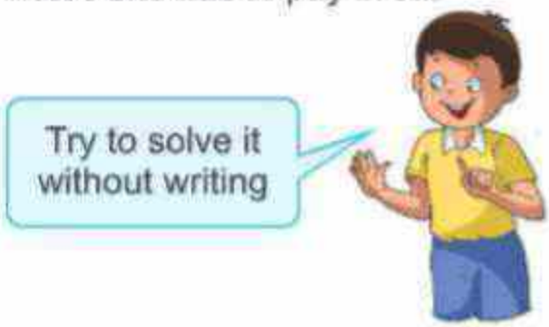
3	2
1	7





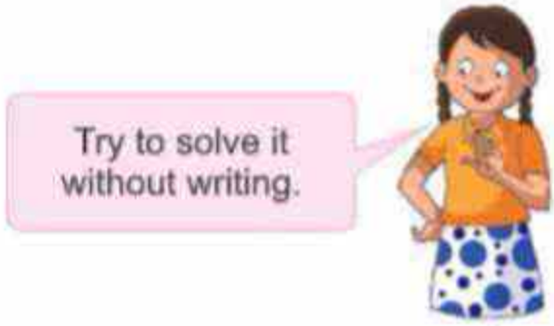
- Sadhna bought biscuits of ₹ 24 and chips of ₹ 16. Tell the total coins and notes she has to pay in all.

2	4
1	6



- Fantoos had ₹ 64. He spent ₹ 19 in fair. How many notes and coins left with him?

6	4
1	9



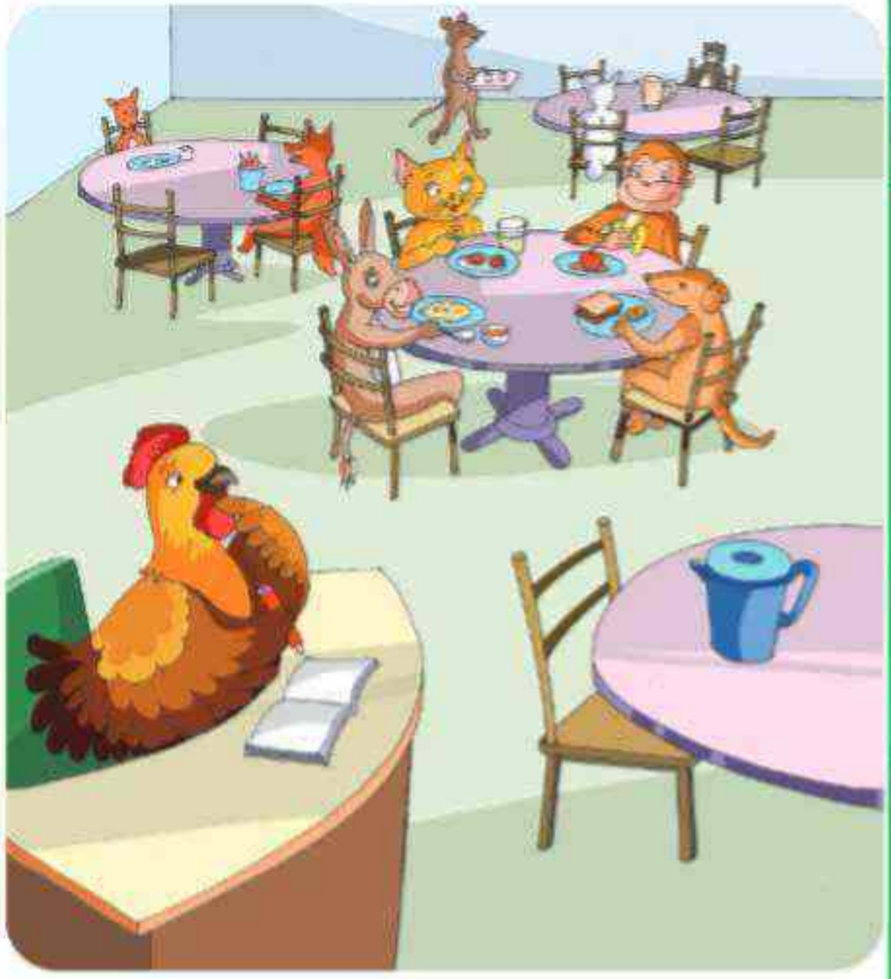
How did they solve without writing? Try some other questions.

Make groups of 4. Let them try to solve the questions by writing and without writing. Discuss with the children – which method is better and why? How children have done it? Discuss it. Ask more questions of this type. Different method have been given on the border. Discuss being different questions, why the difference is same.

Kukdu Cock's Canteen

Tommy Dog went to take food with his friends. Kukdu wrote all the food items eaten by them. You help them to make the Bill.

Food Item	₹
Bread	23
Biscuit	28
Total	



Food Item	₹
Apple	15
Banana	8
Total	

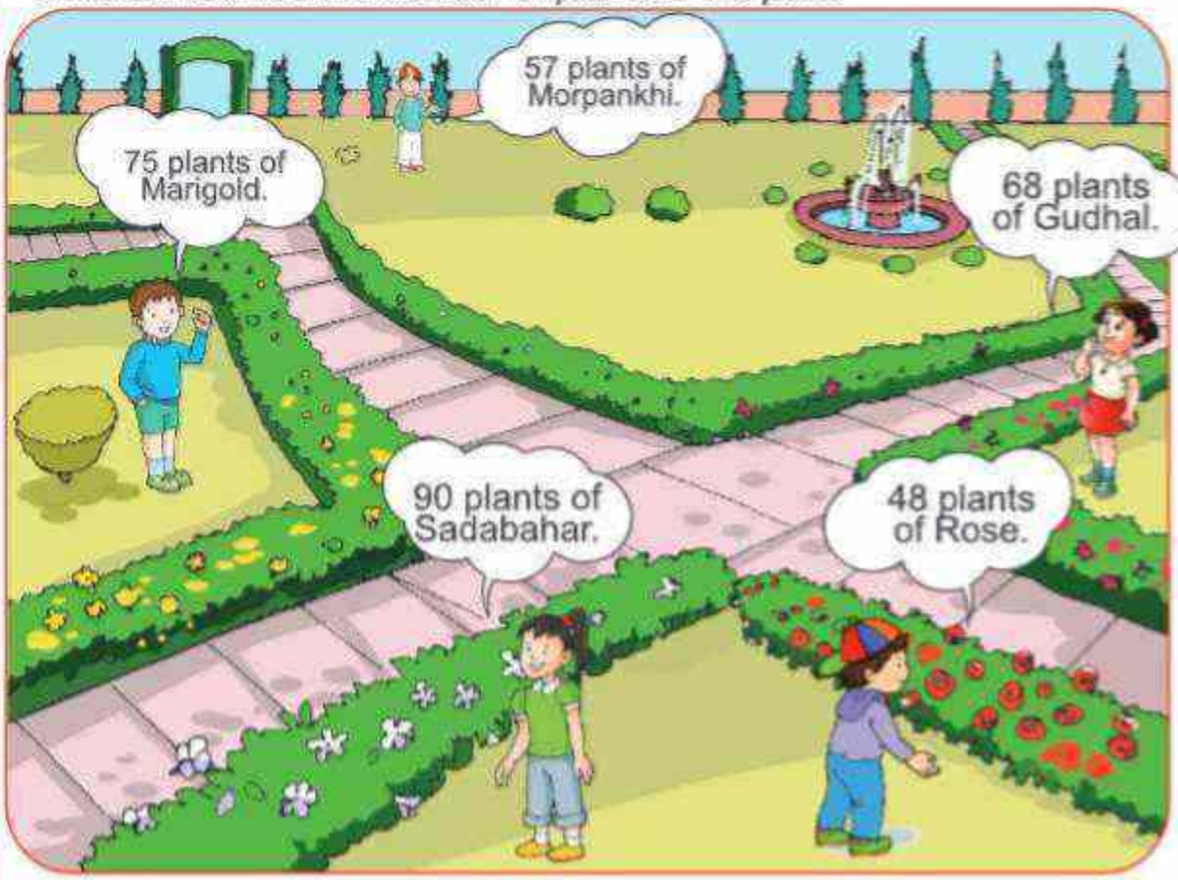
Food Item	₹
Milk	27
Jalebi	15
Total	

Food Item	₹
Curd	25
Rice	18
Total	

Encourage the students to use alternate method instead of the standard method. For example in the bill of milk and Jalebi if we subtract ₹ 2 from ₹ 27 then it will be 25, 25+15 = 40, 40+2 = 42. Do not tell alternate method to children before they try themselves and discuss in the class how did they do it. Some of the questions have same answer. Discuss, why it is so.

Park

Children counted the number of plants in the park.



Plants of Sadabahar are more than Marigold plants.

How much more? .....

- Encircle picture of plants whose number is least.
- Draw box on picture of plants whose number is greatest.
- Children planted more plants to make the count of each plant up to 100.

How many more plants of each type they planted?

Sadabahar	Marigold	Morpankhi	Gudhal	Rose

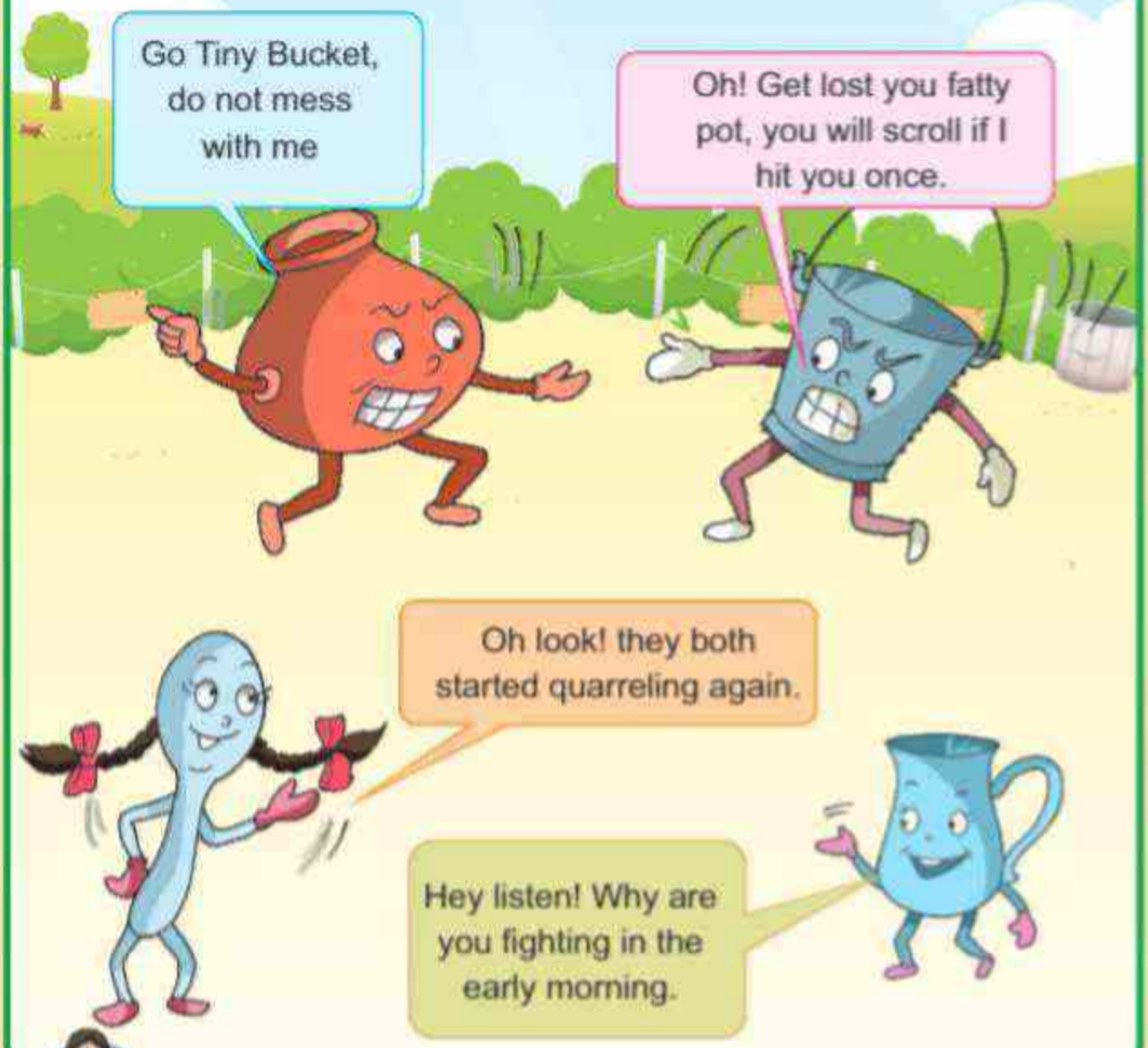
Try on border and find greatest and least in yellow and brown balloons separately on left hand side then over all. Similarly on right hand side.

16

T4K9Q6

Bucket and Pot

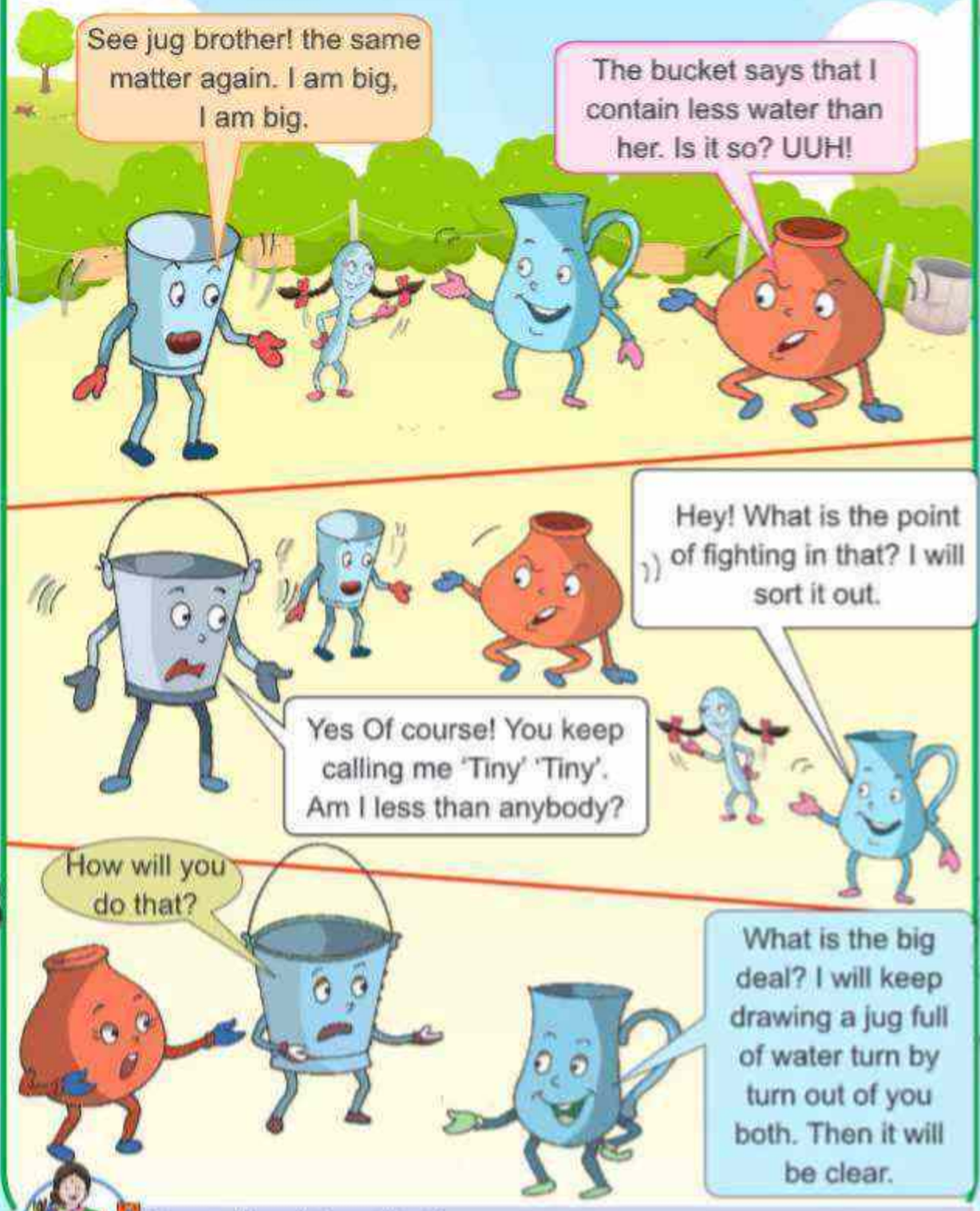
Once there was a pot, and a bucket,
With them, there lived a jug, a glass and a spoon.
One fine morning, they both started quarreling.



Discuss—why are they fighting and how will you stop them? Also ask can you take bath with one jug of water? If not, then how many jugs?

Take it forward

Let children estimate about the containers in border that how many small containers will fill the big container.



25 spoons of water inside beaker, guess number of spoons to fill the beaker.

One glass of water filled in the jug, guess number of glasses to fill the jug.

Discuss—How will jug sort it out?

Bring a jug or any other big vessel in classroom and ask children how many glasses of water can be held by that vessel? One day before the class, the teacher asks students to bring different vessels in classroom like a cup, mug, bowl etc. Divide the students in groups. Provide jug in each group and let them estimate and then see. How many glasses of water can it hold?

Using Tap

Using Mug

Just then, Shivani and her friends came talking to each other.

You also estimate. How many glasses of water can jug contain?

My guess 1 jug water = ... glass water

After measuring 1 jug water =..... glass water

Now using cup, mug, and bowl, find out how many number of these vessels can fill a jug.

Washing Vegetable

My estimation	On measuring
1 jug water = ... bowl water	1 jug water = ... bowl water
1 jug water = ... cup water	1 jug water = ... cup water
1 jug water = ... mug water	1 jug water = ... mug water

Car washing bucket

Collected water is used for plants

Car washing tap

Which vessel will fill the jug in less number of turns .....

Which vessel will take most turns to fill the jug .....

Discuss with friends, why it happened?

Discuss how can we all save water and why?

To make a relationship between a cup, spoon and bowl, let children practice. How many spoons of water does a bowl contain? Estimate how many drops of water can fill a spoon, check by using dropper, cotton or cloth, help them to count the number of drops.

Now let us fill the table

	My guess	My measure
1 spoon water 	..... drops water	..... drops water
1 cup water 	..... spoon water	..... spoon water
1 bowl water 	..... spoon water	..... spoon water

2 cups of water inside.

Do at home

Now collect different types of utensils from your kitchen. Use the same cup to fill each of these utensils.
How many cups of water can each utensil hold.

Utensil you used.	Cups of water on estimation	Cups of water after measuring

4 cups of water inside.

Ring the one which can hold maximum water.

How many cups of water

Arrange different bottles of same measure but of different size and shape, containing equal amount of water. Ask children which bottle out of them seems to contain maximum amount of water or all of them are containing same amount of water. Check it with children and discuss.

First bottle .....cups water

Second bottle .....cups water

Third bottle .....cups water

Which vessel?

Find out at home and write, which vessels are used?

For keeping milk	For keeping water	For keeping oil

Chhutki's question

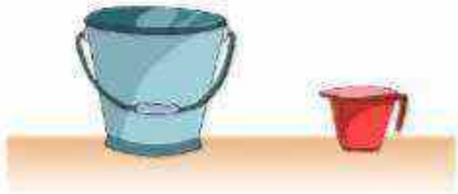
Estimate

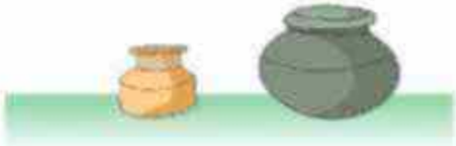
How much water do you drink in a day? How many glasses? .....

How many jugs? ..... How many bucket? .....

Whcih Holds More Water

Ring the one which can hold more water.





Chatlu's question

Shabana wants to give sweets to all the children of her class on her birthday. She asked their choices, which were like these:-

12 children	21 children	8 children	5 children
			

In order to give one sweet to each child, Shabana brought four boxes of sweets. Lets match boxes with sweets.

How many spoons of water can fill the containers on left hand side border?
How many glasses of water can fill the containers on right hand side border?

Thirsty Charpi

Do you want to know, how did the water in the pitcher came up?

Game of estimation to raise the water level.

Make two teams. Take a glass and fill it more than half with water. Put a mark on glass at the level of water and another mark somewhere a little above it. Both teams will estimate number of seeds needed to raise the level of water up to the mark. Both teams one by one will check it by putting seeds in the glass. The team which got level of water raised more closer to the mark, will be the winner.

How many number of seeds were put it in the glass? Team 1 ..... Team 2 .....

Now repeat the same activity by using the marbles first and then by using pebbles larger then marbles in place of seeds.

How many marbles are used to raise the level till mark? Team 1 ..... Team 2 .....

How many pebbles are used to raise the level till mark? Team 1 ..... Team 2 .....

17

14C2C4

How many likes?

Discuss in Class which fruit among Banana, Guava and grapes is liked by them. After the answers given by all at the same time, ask 2-3 children that how many children liked Banana? How many liked mango? And how many liked grapes? Due to answer given by most of the children at same time, it was difficult to find out that how many like banana, mango or grapes. Putting forward the question that what can be the different ways by which we can clearly understand that how many children like which fruit? On the basis of students responses, take up an open discussion in the class.

Ways to know likes

First way

Second way

Child's Name	Favourite game	Child's Name	Favourite Game
Ajay	Hanky Snatching	Harish	Hide and Seek
Radha	Hide & Seek	Salma	Snakes and ladders
Sohan	Snake & Ladder	Rahul	Snatching Hankey
Gurmeet	Snake & Ladder	Mukesh	Snatching Hankey
Sunil	Hanky Snatching	Sunita	Snakes and ladders
Prem	Snake & Ladder	Jasneet	Hide and Seek
Parmod	Snake & Ladder	Ramesh	Snatching Hankey
		Nandu	Snakes and ladders

Looking at the picture, tell how many students want to play which game?

- Now tell, how you came to know that how many children like which game? Is there any other way to know quickly for the same.

Discuss the same for fruits on the border.

One more way

Hanky Santching	Hide & Seek	Snake & Ladder
Ajay Sunil Rahul Mukesh Ramesh	Radha Harish Jasneet	Gurmeet Sohan Parmod Prem Nandu Sunita Salma

- Look at the table and tell, how many children like which game?
- Which of the three ways is best?
- Disuses in class that from which way, we could know faster and why?

Discuss in class that is there any other better way of knowing?

Birthday Chart

There are 18 children in Shivani's class. She has made a chart by drawing as many faces in different months, as the number of children whose birthday falls in that particular month.

Jan	Feb	Mar	Apl	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2	0	5	0	2	0	0	1	0	2	4

Look at the table and tell—

- In which month, birthdays of most children fall?
- In which month, birthday of only one child falls?
- Is there any month in which there lies no birthday?
- How many children's birthday lie in the month of December?

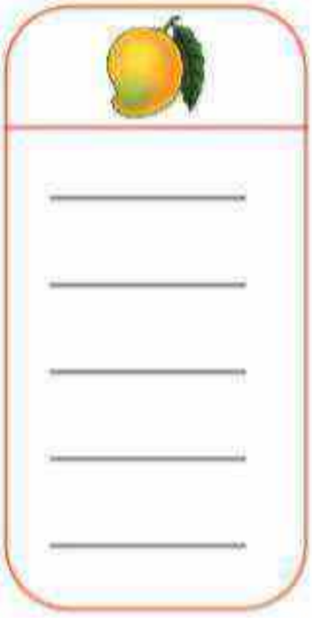
Ask more questions and encourage children to make questions.
Write number of days in each month

You also make a birthday chart of your class and fill the table.

Jan	Feb	Mar	Apl	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Which fruit you like?

Ask every child of the class to select any10 of their classmates and ask them one by one which of the three fruits is their favourite and to write them in the table.



Find Out—

Which fruit is liked by most of the children? .....

Which fruit is liked by least number of children? .....

Encourage children to talk with each other in small groups and get the information. Let children themselves fill the information.

Shoe numbers

Divide children in groups. Ask any one group to get information about how many children have worn the shoes with number 9. In this way, ask other groups to get information about other shoe numbers. Ask them to write the shoe numbers in their notebook. Make discussion in groups and encourage them to get the answer of the following questions.

How many have (9) size shoes? ..... children.

The number of children with (11) size shoes is .....

The largest number of children have ( ) size shoes.

The smallest number of children have ( ) size shoes.

( ) children have ( ) size shoes.

The Colour You Like

There are many colours around you.
Ask your friends about the colour they like most. How many children like yellow? Write the number in the table. Fill the table for other colours.

Colour liked		Number of children
	Yellow	
	Red	
	Blue	
	Green	
	White	

Find out and colour the box

a) Most children like [ ] colour.

b) Children who like [ ] colour are more than children who like [ ] colour.

c) Children who like [ ] colour are less than children who like [ ] colour.

Make table for shoes on border also.

38 10 + 28 38 11 + 27 38 12 + 26 38 13 + 25 38

10 + 17 16 + 22

27 38

14 + 13 18 + 20

27 38

11 + 16 10+11+17

27 38

12 + 15 10+13+15

27 38

13 + 14 11+12+15

38 38

19 + 19 10+12+16

Fun and Play

Cross and Cross

To play this game, children should write any 9 numbers between 10 to 50 in the boxes. Teacher/parents/ children will speak two numbers where sum is written in the boxes. Children will find that number and put cross on that number. Same game can be played for subtraction also. Play the game till all numbers are crossed.

Mat Game

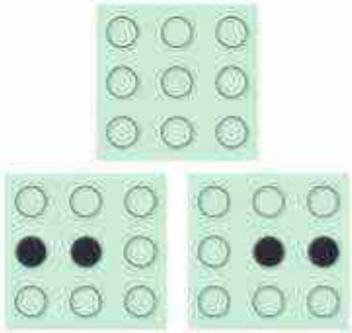
Play this game in pairs. Display number cards 10 to 50 on the ground. One child will speak a number for example 38 and other child will pick 2 or more cards so that sum of numbers on them is equal to 38.

In the same way, second child will speak the number and first child will pick up cards with same sum.

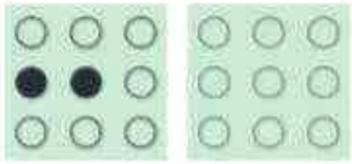
The game will continue. It can be played using subtraction also.

Mirror Game

Draw 9 rounds on a paper as shown and keep two pebbles as shown.



Ask your friends to guess that if we see them in mirror, how these pebbles will look like?

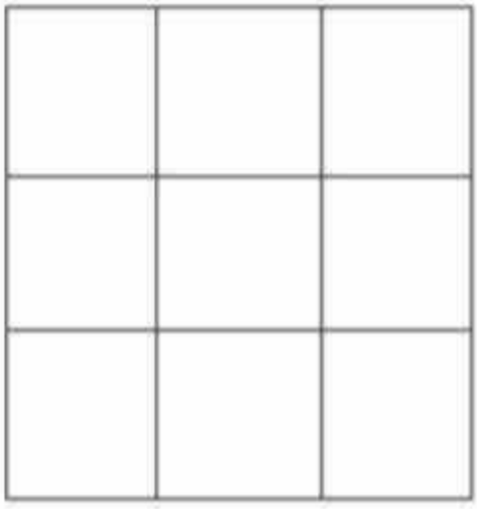


Change the position of pebbles and their number also.

Mind Game

Magic Box

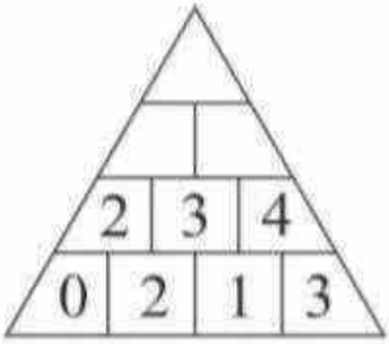
Let us write numbers 1 to 9 so that sum is 15 in all lines.



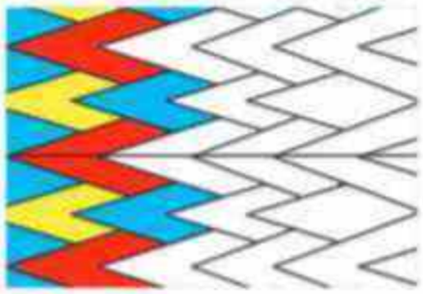
Colour and take it forward

Write 1 three times, 2 three times and 3 three times in such a way that sum is same in every line.

Let us make Number Hill



Let us complete the design



How the pressure cooker and book will be visible from top?

On looking from top

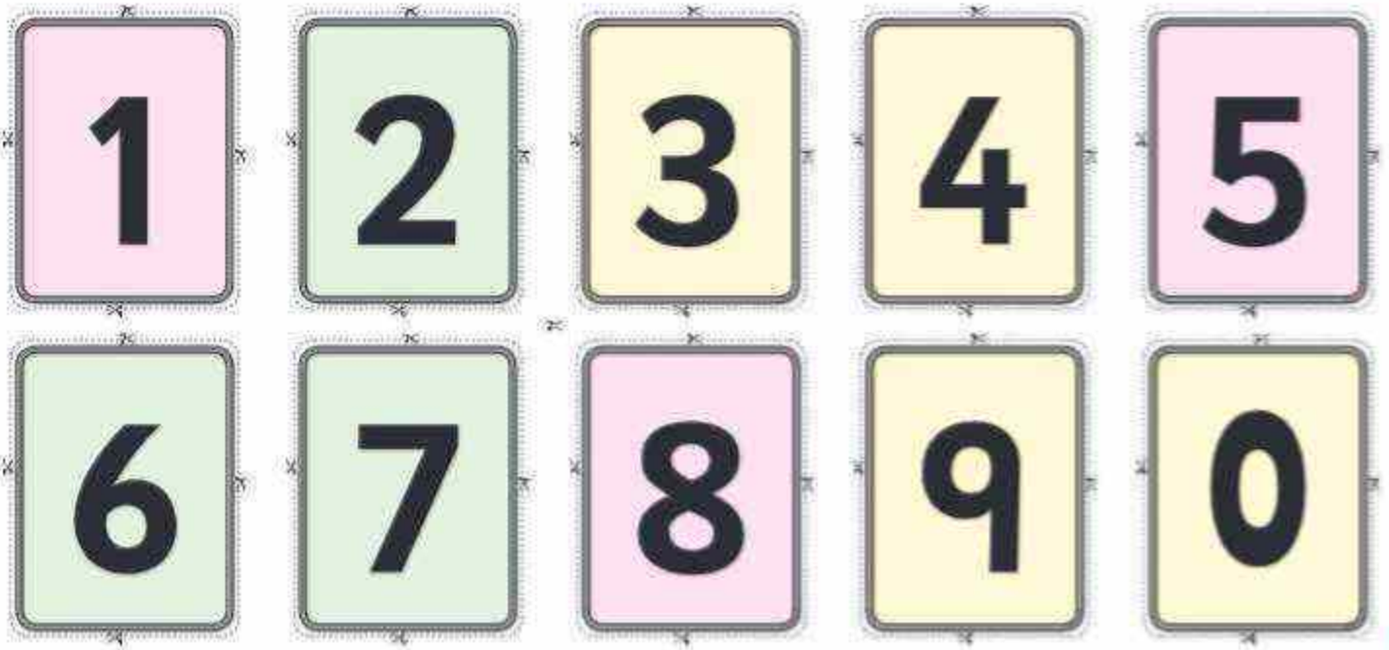
On looking from front

On looking from side

Colour and take it forward

Let us cut and use them

Let us cut and use them.



Complete the grid to discover the number facts up to 20.

+	○	○○	○○○	○○○○	○○○○○	○○○○○ ○	○○○○○ ○○	○○○○○ ○○○	○○○○○ ○○○○	
a ○	2									
b ○○		4								
c ○○○										
d ○○○○										
e ○○○○○					10					
f ○○○○○ ○										
g ○○○○○ ○○										
h ○○○○○ ○○○										
I ○○○○○ ○○○○										