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Our National Fruit - Mango

કાનજી સૂણે
કોયલ કેરી કુંજ
કેરી બગીચે

Kanji listens
A Cuckoo coos
Mangoes in orchard

Count total letters of this poem.
(Gujarati).

There are five letters in the first row.
There are five letters in the last row.
Alongwith seven letters in the
middle row, total seventeen letters
are there.

This poem of three lines is called
'Haiku'.

It is a poetic form of Japan and it is
written in just seventeen letters. Its
formation is (5+7+5).

Here given below is
another 'Haiku':

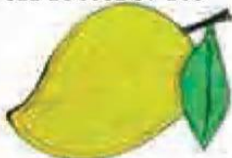
મીઠી સુગંધી

હું સોરઠની કેરી I am sweet and fragrant
હું હું કેસર. Mango from sorath
I am kesar.

- Do You know any poem or story
about mangoes ?

Some pictures of mango given here are
made by children.

- Which shapes come to your mind when you think about mangoes ?
Draw a picture, as given below, using different shapes of mangoes
you have thought about.



In Sanskrit, mango is called 'Amra'. Different shapes of the 'Amra' are often commonly seen in embroidery work, paintings or jewellery designs.



- Observe the pictures on curtains, mats or any other things and find mangoes of different colours and shapes.
- Draw mangoes of different types with different designs.

Talala taluka of Gir Somnath district is famous for its 'Kesar' mangoes world-wide. The quality of land ecology are suitable for growing mangoes. Talala can be called the capital of 'Kesar' mangoes. The plantations of mango are called 'Ambawadi'. They are life-line of this region.

You must have heard, “आंबे आव्या भोर, वार्ता कडेसुं पोर.” A mango-tree initially bears flowers (भोर-mor) in the season of spring. After that it bears mango fruits. Mangoes are picked from the trees and piled on the ground. Then, they are segregated and packed in different boxes as per their quality. These boxes are sent to the marketing yard.



- Bring similar number of mango boxes as the number of students in the class. Each box must contain 18 mangoes. If all the students will open the boxes and pile the mangoes in a single heap, what will be the total number of mangoes in that heap? How many heaps of 10 mangoes each can be made from the big heap?
- Guess, how many mango-trees will be there in a single mango orchard (Ambawadi)?

Well, if a farmer picks mangoes from one tree during the season which can fill 18 boxes of 12 kg in a quantity each, make an estimate of how many kg and how many boxes full of mangoes, the farmer would have picked up from all mango trees of the orchard.

- How many kilograms do you weigh?
- What is the approximate total weight of 12 students like you together?
- Compare the total weight of 12 students with the weight of total mangoes picked from this orchard, which one is less?
- If 5 kg mangoes are consumed at our home every week and if each kg will cost ₹ 75, how many kg of mangoes will be required for one month? What will be the cost of it?
- If the mango season continues for 3 months and you eat mangoes regularly, give an estimate of mangoes required and its cost during the season.

The way parrot bites the row mango, the village kids compete with each other for getting the mangoes from the tree by hitting stones during the vacation time. If they are able to get one mango, they become very happy. And, sometimes these mangoes are picked up with the spirit of competition among the children. But, sometime kids get hurt by stones too. Sometimes, emotions of people get hurt and mothers are constantly worried for their kids. This phenomenon is not visible in cities. If, such scenes are created, drama of 'Mahabharat' takes place under mango-trees. Noise of people go louder than cooing of a cuckoo bird.

Look at the pictures of mangoes given below. Mango looks more beautiful with its leaves. Try to draw similar pictures of mangoes as given below :



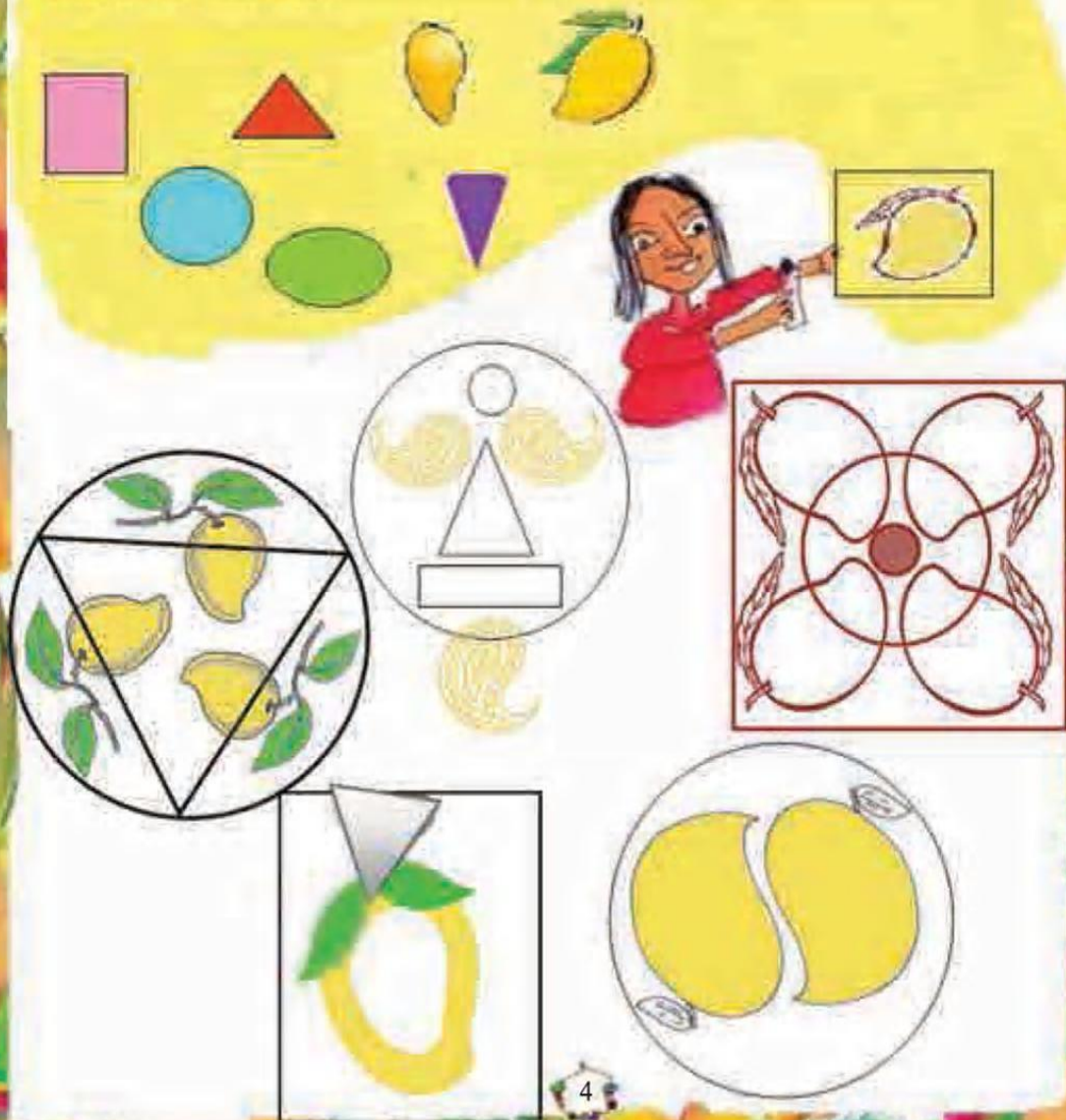
This chapter is based on the subject mangoes. It introduces different types of mangoes to the students through the concept of marketing yard. Mathematical concepts like shapes, assumptions, big numbers, general operations, speed and loan are presented here in real life context. It also creatively revises and strengthens the concept studied before.

Do you know ? India produces approximately 1,60,00,000 tons (1 ton = 1000 kg) mangoes every year. India is the biggest producer of the mangoes in the world. Uttarpradesh does the largest production of mangoes in India.

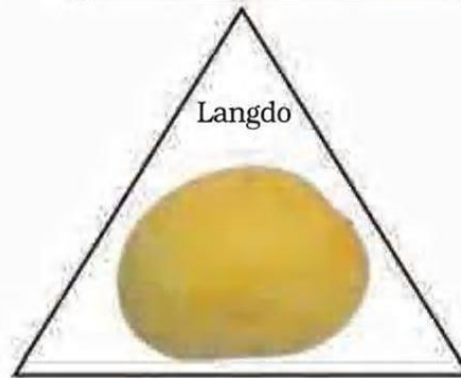
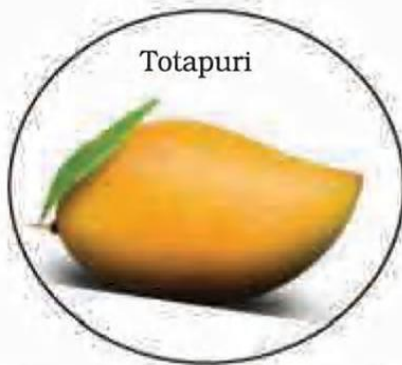
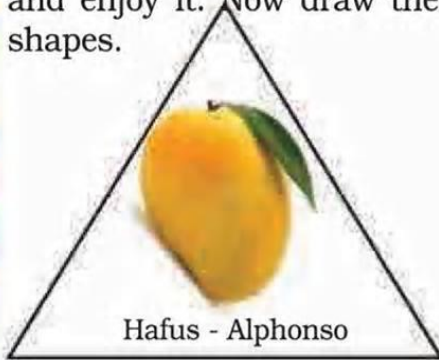
What do you know about the biggest mango ? The biggest mango weighing 3.435 kg was displayed in philipines. It was 30.48 cm (12 inches) in length, 49.53 (19.5 inches) in circumference and 17.78 cm (7 inches) in breadth.



Jency has made pictures of mango in different shapes. Draw different shapes of mangoes.



When you go to the market to buy mangoes, don't get confused to see so many different types of mangoes. Search yourself in the market for the following types of mangoes. Buy whichever type of mango you like and enjoy it. Now draw these mangoes on card paper of different shapes.



Which type of mango, from the above given varieties, have you tasted ?

Mango orchard and its farmer

How many of you have seen a mango orchard ? Where have you seen it ? Have you seen it in real or on T.V. ? Are the mango trees tall and strong or short and weak ?

Do you know how to climb on a tree ? Are you afraid of climbing on a tall tree ?

- Close your eyes and imagine that you are standing under a huge mango-tree.
- Can you think, how tall a mango-tree can be ?



Imagine that, you have come to a mango orchard with a farmer. The leaves of the trees are making rustling sound in the gentle breeze. A cooing sound is heard from up the mango-tree. The mangoes on trees are swinging on branches because of the breeze.

The farmer starts his work in dark in early morning. Some farmers go

to their field in bullock-carts. The farmers, growing mangoes face a difficult time when the strong wind is blowing.

We cannot go far in a bullock-cart. A bullock-cart can cover the distance of only 4 kilometers in an hour.

- How much time will it take to cover the distance of 10 kilometers ?
- Guess, how much distance, do you cover in an hour by walking fast ?



We can feel the wind and also the sun moving with us during a journey. If we forget the direction, we can figure it out with the help of position of the sun. Right !!

Find Out

Look at the sun and find out direction of its rising.

- Stand wherever you are, which interesting things do you find in your east ?
- Write name of any two things situated in your west direction.



Wow ! so many mangoes !!

Farmers select a graft from a mango-tree which gives more mangoes and sow the plant and grow it in their own farms. A farmer has to wait for many years to grow a big mango-tree and to get mangoes on that tree.



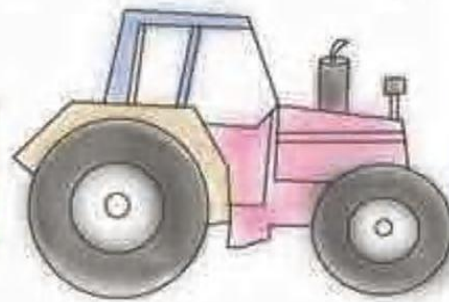
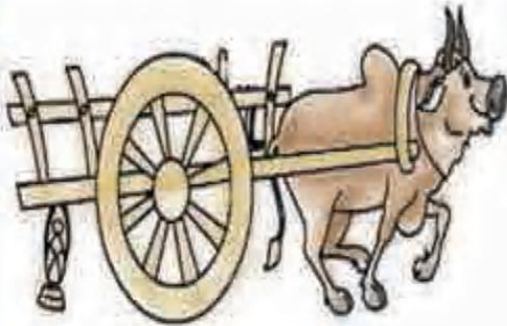
• Observe different types of vehicles

The mangoes which are ready for sale are carried to APMC (Agriculture Production Market Committee) or market yard or bazar in different ways. To supply the mangoes to market yard as early as possible, big or small vehicles are used. A tractor moves at the speed of 20 km per hour.



- How much distance can a tractor cover at the same speed in 3 hours ?
- How much time it will take to cover the distance of 85 kilometers ?

- Draw the sketches following vehicles.



Now-a-days, the producers of mango are very happy, because this occupation is developed at national and international level. Our mangoes are exported to different states of our country and also to the foreign countries. Transportation of mangoes in a huge quantity is carried out by trucks and by airplanes.

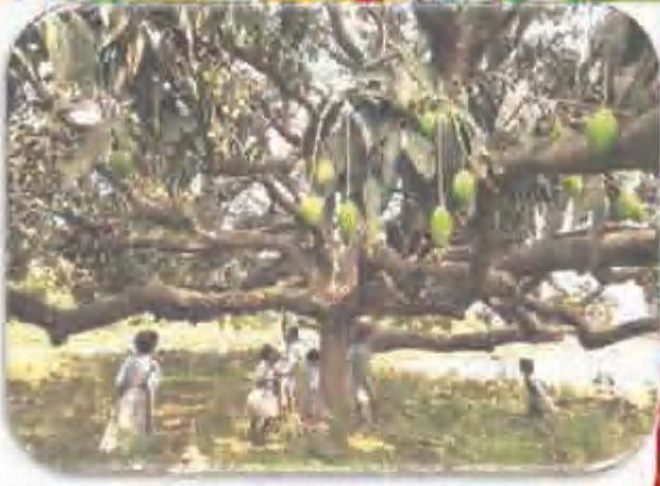
It is a matter of concern for our environment and health that the use of fertilizers and pesticides have increased in mango orchards. Due to this the land quality is deteriorated and it is becoming infertile. Dangerous chemicals are used to ripen the mangoes quickly which harm our health.



At present, many farmers grow mangoes by organic method without using chemicals and keep our health as well as their land good.

Some people buy raw mangoes, get them ripen at their own home using dry grass, jute sacks, onion, paper or grain and enjoy them.

Many types of mangoes are in existence since many years. Earlier, huge native (Deshi) mango-trees were more in numbers. Commonly 3-4 mango-trees were seen in each farm. Now-a-days, farmers are growing grafted mangoes only.



Native mango-trees are about to extinct. If there are no mango-trees where will we hear cooing of cuckoos ? How will we enjoy mangoes by climbing on mango-tree like our grandfathers when they were kids ? How will we enjoy visit of mango orchard ? Think...

- Write a report on 'Problems related to existence of mango and mango-trees.'

Vehicles carrying mangoes

A wooden bullock cart can carry 200 kilograms of mangoes. But other vehicles carry mangoes or mango boxes as per shown in the table given below. The table also shows the speed of vehicles of each type. So that we can know about the distance of each type of vehicle can cover in one hour.

Look at the table and calculate :

- How many kg mangoes, each vehicle can transport in its seven trips ?
- How much distance is covered by a tractor in six hours ?
- How much time will be taken by a rikshaw-trailor to cover 60 kilometers ?

Type of vehicle	Transportation of mangoes in a trip	Speed of vehicle (distance covered in km in one hour)
Bullock-cart	200	4
Rickshaw-trailor	600	12
Tractor	800	20
Truck	6000	44

Some Big Numbers

You have learned about the number 'lakh' in your class IV mathematics textbook. You know that it is equal to 100 thousands. You also know that there are approximately one lakh bricklin in our country where bricks are made.

- Have you learned something else about the number lakh ?
- Write one thousand in number. Now write 100 thousands in number. How many zeroes are there in one lakh ?
- If there are 2 lakhs transportation vehicle in your area and half of them are trucks, write number of trucks in your area.
- If one fourth part of these vehicles are tractors, how many thousand of tractors are there ? Try and answer without writing.

You will be wondered to know that so many people are associated with business of mangoes. There may be one hundred lakh people in total, who grow mango-trees, grow mangoes and trasport the



mangoes to the marketing yard, sell mangoes around us and work in small or big mango related industry. 100 lakhs is also known as one crore.

- Where have you heard about one crore ? How is this number used ?
- Write the number one crore. Don't make mistake to write zeroes.



Savjibhai - Come here ! Come here ! Buy this 'Valsadi Totapuri' at the rate of ₹ 40 per kg!

Mahipatbhai - Never so cheap ! Alphonso at the rate ₹ 60 per kg! Madhuben is selling good quality 'Kesar' mango at rate ₹ 150 per kg. Rajaram sells 'Langdo' mango at the rate of ₹ 50 per kg.

Look here..., this...side... Jaydeepsinh has brought fragrant raw kesar mangoes from Gir to be ripened at home in 8 kg box. He says that these mangoes will be ripened at your home in organic way and he will charge ₹ 1200/- per box.

Practice

- (1) At what price per kg, does Jaydeepsinh sell his kesar mangoes ?
- (2) Today Madhuben has sold 10 kg kesar mangoes. How much did she earn from that ?
- (3) Mahipatbhai has sold 6 kg Alphonso mangoes. Savjibhai has earned the same amount as Mahipatbhai. How many kg of 'Totapuri' mangoes have been sold by Savjibhai ?

Fruit Market

Have you ever visited a market yard, fruit or vegetable market? If yes, do you know why is this noisy place known as market ? The major fruit markets of the city are busy. A large stock of mangoes has arrived in many vehicles. The sellers are calling the customers are shouting. Speaking out the prices and praising their own mangoes.



(4) Raj has ₹ 100. He spent fourth part of the amount to buy Langdo mango. He spent rest of three fourth amount to buy kesar mangoes.

(a) How many kg 'Langdo' mango he had bought ?

(b) How many kg 'kesar' mango he had bought ?



Try to speak rapidly

Here a tongue twister is given. Repeat it rapidly.

Raw mango, ripe mango, mango sour, mango sweet.

Raw mango, ripe mango, sour mango, sweet mango.

Sour mango, sweet mango, raw mango, ripe mango

mango sour, mango sweet, mango raw, mango ripe.

Women Amra Bank of Mango Producers

The meeting of women Amra Bank has just started. Madhuben is its chairman. This bank is established by 20 members. Every member saves ₹ 25 per month and deposit in the bank.

- How many rupees are collected by this group in every month ?
- How many rupees will be collected in 10 years ?

Practice

(a) Rekha borrowed a loan of ₹ 4000/-. She paid ₹ 345 to bank every month for a year. How many rupees did she pay to the bank ?
How many rupees are yet to be paid ?

(b) Mira and her brother borrowed a loan of ₹ 21,000/- to buy new plants of grafted mango-trees. They paid back ₹ 23,520/- in a year. How many rupees they would have paid every month ?

Earlier, women were not active in mango business. But now Madhuben and other women are engaged in mango business. Things are changing now. Their bank also helps them in that. These women are given employment oriented, business oriented, small scale industry at home related trainings to help them become self reliant and contribute to economic development of the family.



Why don't we start the business of preparing mango-pulp ?

Some women associated with women Amra Bank want to start a small scale industry of preparing mango-pulp at home. They have acquired a place from 'Panchayat' for it. They have saved ₹ 74,000/- last year. They made calculation of the amount of investment required to startup this new industry.

Madhuben prepared a list of required items before starting this work. These items should be purchased in the beginning of the work. The cost and number of items of these things are given in the following table. Find total expenditure.



Item	Cost for item	No. of items	Expense
Mixer-Grinder	₹ 3000	1	
Thermocol-ice-box for preserving and transporting Mango-pulp	₹ 2000	20	
Big pots	₹ 1000	4	
Tray and knife	₹ 300	20	
Bucket	₹ 75	20	

Total expenditure to start a business =

- When they extract pulp from mango, it weighs $\frac{1}{3}$ of a mango.
- They have planned to extract pulp from 6000 kg mangoes in a month.
- How much mango pulp will be prepared in a month?



Madhuben-Let's calculate for first 6 kg mangoes.

For purchase of mangoes	₹ 15 per kg
For sale of mango-pulp	₹ 70 per kg

- If we extract mango-pulp from 6 kg mangoes, we get kg pulp.
- The total amount to be paid for 6 kg mangoes $6 \times \dots = ₹ 90$.
- Amount received by selling 2 kg mango-pulp $2 \times \dots = ₹ \dots$
- Therefore, the amount by selling the pulp prepared from 6 kg mangoes $₹ \dots - ₹ 90 = ₹ \dots$
- If we prepare mango-pulp of 6000 kg mangoes, the amount we earn $\times ₹ 1000$.





All women are very happy for this plan. Every women will get good profit and will get wages for the work done by them.



Anita - I have found out by another calculation that 1500 kg ice will be required every month. Its cost is ₹ 2 per kg. Therefore,

Monthly expense

(A) Ice $1500 \times ₹ 2 = ₹ \dots\dots\dots$

(B) Packaging charge and rickshaw fare = ₹ 3000

So, the total monthly expense of buying mangoes and selling mango pulp is ₹

Madhuben - Oh ! How nice ! From this calculation, we know that our bank will earn ₹ 44,000/- per month.

• Check, do you get the same answer ?



Find out

There are many beautiful songs about mangoes. Get words and tunes of such songs.