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STANDARD THREE

TERM - II

VOLUME 2

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SCIENCE
SOCIAL SCIENCE

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Department Of School Education

Untouchability is Inhuman and a Crime

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MATHEMATICS

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UNIT-1

NUMBERS



Mutiplication

Mutiplication is adding the same number to a specified number of times.

Example: 4 + 4 + 4 = 12

Here, we add 4 three times and the answer is 12.

This can be written as 4 × 3 = 12.

Multiplication is quicker way to add the number occuring repeatedly.

1.1 Symbol of multiplication

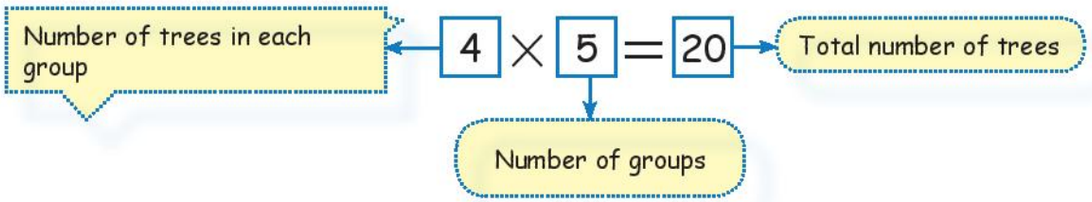
we use the symbol "x " to represent multiplication.

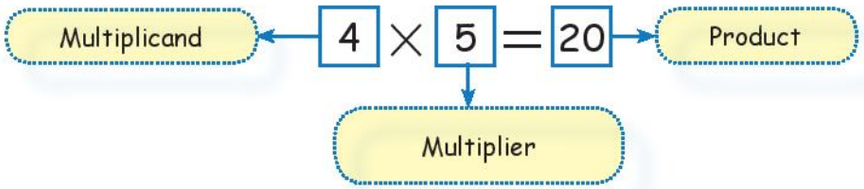


4 Trees in 5 groups is 20

This can be written as 4 x 5 = 20

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Mutiplication of a number with other number can be done in the following ways.

(i) Dot multiplication (ii) Repeated addition (iii) Regrouping

(iv) Standard multiplication algorithm (v) Lattice multiplication

1.2 Dot multiplication:



Complete the following table.

Stars	Number of horizontal rows	number of vertical columns	Total number of stars
	2	4	2 x 4 = 8
			
			
			

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1.3 Repeated addition:

Let us recall the repeated addition we have learnt in lower classes.

i) **Find the total number of flowers.**

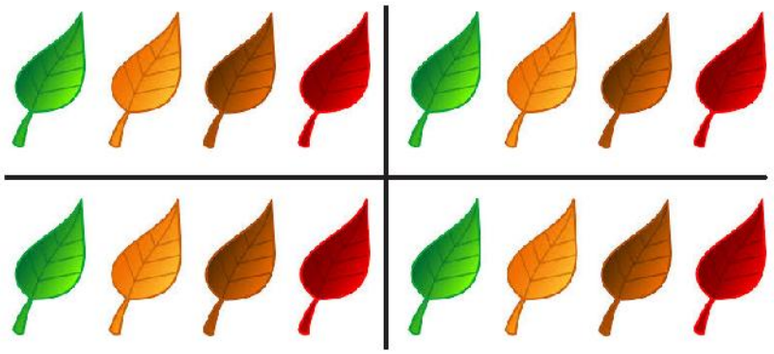


We can find the total number of flowers as follows.

$3 + 3 + 3 = 9$

3 groups of 3 flowers make 9 $\quad 3 \times 3 = 9$

ii) **Find the total number of leaves.**



$4 + 4 + 4 + 4 =$ $\quad$ $4 \times 4 = 16$

iii) **How many apples are there in four plates**



There are four plates. Each has five apples.

Total number of apples = $5 + 5 + 5 + 5 =$

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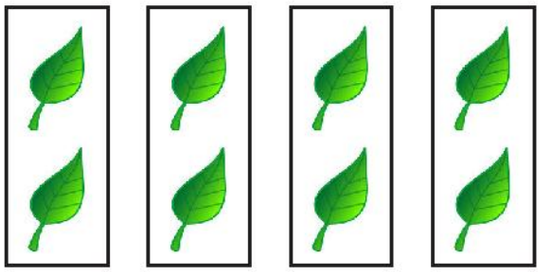
1.4 Construction of multiplication tables of 2, 3, 4, 5, & 10

Multiplication table 2

Each box has 2 balls	Repeated addition facts	Multiplication facts
	2	$2 \times 1 = \mathbf{2}$
	$2 + 2$	$2 \times 2 = \mathbf{4}$
	$2 + 2 + 2$	$2 \times 3 = \mathbf{6}$
	$2 + 2 + 2 + 2$	$2 \times 4 = \mathbf{8}$
	$2 + 2 + 2 + 2 + 2$	$2 \times 5 = \mathbf{10}$
	$2 + 2 + 2 + 2 + 2 + 2$	$2 \times 6 = \mathbf{12}$
	$2 + 2 + 2 + 2 + 2 + 2 + 2$	$2 \times 7 = \mathbf{14}$
	$2 + 2 + 2 + 2 + 2 + 2 + 2 + 2$	$2 \times 8 = \mathbf{16}$
	$2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2$	$2 \times 9 = \mathbf{18}$
	$2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2$	$2 \times 10 = \mathbf{20}$

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Multiplying by 2:



$2 + 2 + 2 + 2 = 8$

2 leaves in 4 groups is 8. This can be written as $2 \times 4 = 8$

4 times 2 is 8

Multiplier

Multiplicand ← 2 × 4 = 8 → Product

Activity:

x	1	2	3	4	5	6	7	8	9	10
2	2	4			10				18	

Exercise

Fill in the boxes:

2 x 6 =	
9 x 2 =	
3 x 2 =	

7 x 2 =	
2 x 5 =	
2 x 2 =	

8 x 2 =	
4 x 2 =	
2 x 3 =	

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Multiplication table 3



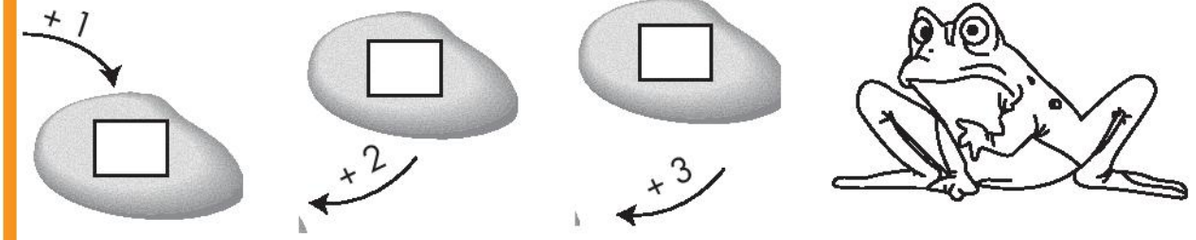
Boxes of 3 stars	Repeated addition facts	Multiplication facts
***	3	$3 \times 1 = 3$
*** ***	$3 + 3$	$3 \times 2 = 6$
*** *** ***	$3 + 3 + 3$	$3 \times 3 = 9$
*** *** *** ***	$3 + 3 + 3 + 3$	$3 \times 4 = 12$
*** *** *** *** ***	$3 + 3 + 3 + 3 + 3$	$3 \times 5 = 15$
*** *** *** *** *** ***	$3 + 3 + 3 + 3 + 3 + 3$	$3 \times 6 = 18$
*** *** *** *** *** *** ***	$3 + 3 + 3 + 3 + 3 + 3 + 3$	$3 \times 7 = 21$
*** *** *** *** *** *** *** ***	$3 + 3 + 3 + 3 + 3 + 3 + 3 + 3$	$3 \times 8 = 24$
*** *** *** *** *** *** *** *** ***	$3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3$	$3 \times 9 = 27$
*** *** *** *** *** *** *** *** *** ***	$3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3$	$3 \times 10 = 30$

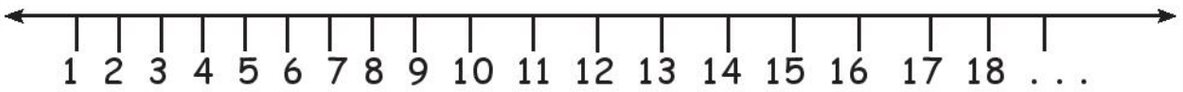
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Activity:

Shall we say the multiples of 3.

I like to jump by 3





Multiples of 3 = 3, 6, 9, 12, 15, 18

Exercise

1. **Fill in the following tables:**

x	1	2	3	4	5	6	7	8	9	10
2	2		6				14			
3	3				15					30

2. **Fill in the boxes:**

6 × 3 = ☐ 5 × 3 = ☐ 3 × 3 = ☐ ☐ × 3 = 9

10 × 3 = ☐ 3 × 6 = ☐ 8 × 3 = ☐ 2 × ☐ = 6

4 × 3 = ☐ 3 × 10 = ☐ 3 × 4 = ☐ 9 × ☐ = 27

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Multiplication table 4

A chair has 4 legs	Repeated addition facts	Multiplication facts
	4	4 × 1 = **4**
	4 + 4	4 × 2 = **8**
	4 + 4 + 4	4 × 3 = **12**
	4 + 4 + 4 + 4	4 × 4 = **16**
	4 + 4 + 4 + 4 + 4	4 × 5 = **20**
	4 + 4 + 4 + 4 + 4 + 4	4 × 6 = **24**
	4 + 4 + 4 + 4 + 4 + 4 + 4	4 × 7 = **28**
	4 + 4 + 4 + 4 + 4 + 4 + 4 + 4	4 × 8 = **32**
	4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4	4 × 9 = **36**
	4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4	4 × 10 = **40**

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Exercise

1. Complete the table.

×	1	2	3	4	5	6	7	8	9	10
4				16			28		36	

2.



If there are 4 toys in a box, how many toys will be there in 5 boxes?

□ × □ = □

3. Fill in the boxes.

3 × □ = 12

5 × 4 = □

□ × 4 = 28

9 × 4 = □

6 × □ = 24

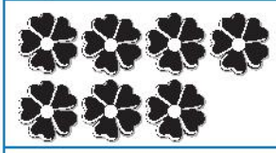
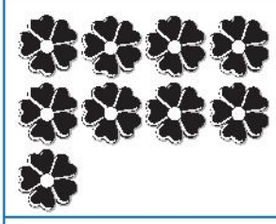
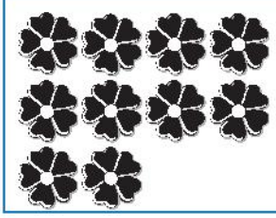
□ × 3 = 12

4 × □ = 16

□ × 4 = 40

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Multiplication table 5

A flower has 5 petals	Repeated addition facts	Multiplication facts
	5	5 × 1 = 5
	5 + 5	5 × 2 = 10
	5 + 5 + 5	5 × 3 = 15
	5 + 5 + 5 + 5	5 × 4 = 20
	5 + 5 + 5 + 5 + 5	5 × 5 = 25
	5 + 5 + 5 + 5 + 5 + 5	5 × 6 = 30
	5 + 5 + 5 + 5 + 5 + 5 + 5	5 × 7 = 35
	5 + 5 + 5 + 5 + 5 + 5 + 5 + 5	5 × 8 = 40
	5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5	5 × 9 = 45
	5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5	5 × 10 = 50

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Exercise

1. Fill in the blanks:

i) ☐ × 5 = 10

ii) 4 × ☐ = 20

iii) 6 × 5 = ☐

iv) 9 × ☐ = 45

v) ☐ × 5 = 50

2.

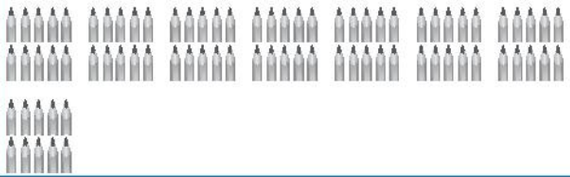


If there are 6 roses in a vase, how many roses will be there in 5 vases?

☐ × ☐ = ☐

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Multiplication table 10

10 pencils in one box	Repeated addition facts	Multiplication facts
	10	10 × 1 = **10**
	10 + 10	10 × 2 = **20**
	10 + 10 + 10	10 × 3 = **30**
	10 + 10 + 10 + 10	10 × 4 = **40**
	10 + 10 + 10 + 10 + 10	10 × 5 = **50**
	10 + 10 + 10 + 10 + 10 + 10	10 × 6 = **60**
	10 + 10 + 10 + 10 + 10 + 10 + 10	10 × 7 = **70**
	10 + 10 + 10 + 10 + 10 + 10 + 10 + 10	10 × 8 = **80**
	10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10	10 × 9 = **90**
	10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10	10 × 10 = **100**

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Exercise

Complete the following table:

×	1	2	3	4	5	6	7	8	9	10
5										
10										

1.5 Multiplication by regrouping:

This method can be used by multiplying a two digit number.

Consider the following multiplication

53×7

53 can be regrouped into 5 tens and 3 ones.

Hence, 53×7 can be written as $(5 \text{ tens} \times 7) + (3 \text{ ones} \times 7)$

$= (50 \times 7) + (3 \times 7)$

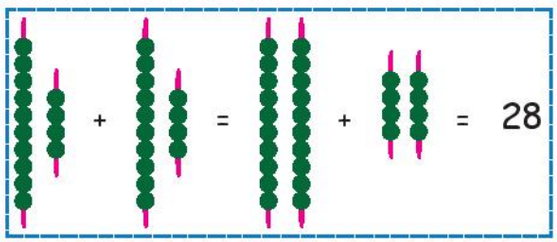
$= 350 + 21$

$= 371.$

Example

$14 \times 2 = ?$

That is 2 Times 14



$14 \times 2 = (1 \text{ Ten} \times 2) + (4 \text{ Ones} \times 2)$

$= (10 \times 2) + (4 \times 2) = 20 + 8$

$= 28$

Exercise

1. Multiply the following numbers by regrouping

(i) 78×4 (ii) 26×5 (iii) 376×2 (iv) 402×5 (v) 752×3

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1.6 Multiplication using standard algorithm:

Multiply using multiplication table

Step 1: Multiply Ones

T	O
1	4
×	2
	8

4 × 2 = 8

Step 2: Multiply Tens

T	O
1	4
×	2
2	8

1 × 2 = 2

Product = 14 × 2 = 28

Example

1. Multiply. 23 × 4

Step 1:

H	T	O
	1	
	2	3
	×	4
		2

3 × 4 = 12

Step 2

H	T	O
	1	
	2	3
	×	4
	9	2

2 × 4 = 8

Product = 23 × 4 = 92

2. Multiply. 32 × 5

Step 1:

H	T	O
	1	
	3	2
	×	5
		0

2 × 5 = 10

Step 2:

H	T	O
	1	
	3	2
	×	5
1	6	0

3 × 5 = 15

Product = 32 × 5 = 160

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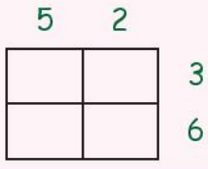
1.7 Lattice multiplication:

Lattice multiplication is helpful while dealing with numbers with more than two digits.
We follow the following steps in Lattice multiplication.

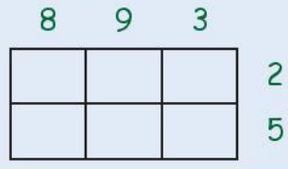
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Step 1: Write the numbers to be mutiplied as follows.

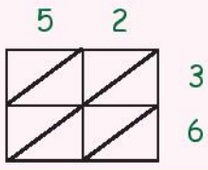
(i) 52 × 36

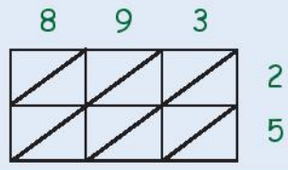


(ii) 893 × 25

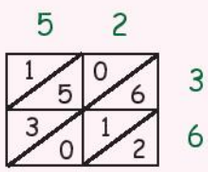


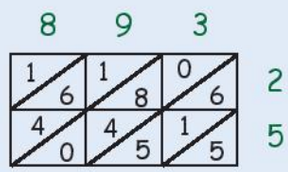
Step 2: Draw diagonals of the square.



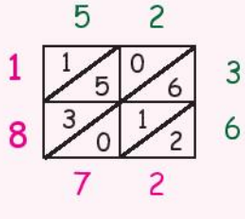


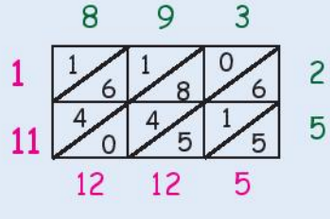
Step 3: Mulitiply the numbers and write them in the cells as shown below





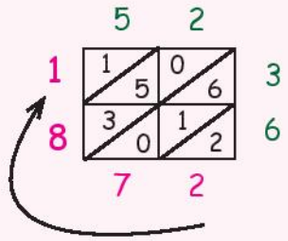
Step 4: Find the sum of each diagonal and write as follows.



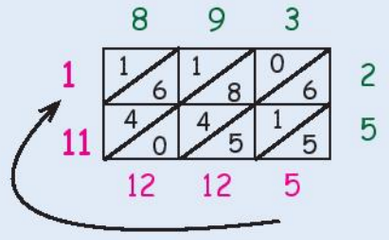


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Step 5: Arrange the sum to get answer as follows.



Answer: 1 8 7 2



Answer: 1 + 1 1 + 1 2 + 1 2 + 5

2 2 3 2 5

Exercise

1. Find the product using standard algorithm:

i) $20 \times 2 =$ ☐ ii) $21 \times 4 =$ ☐ iii) $65 \times 5 =$ ☐

iv) $14 \times 3 =$ ☐ v) $26 \times 10 =$ ☐

2. Complete the following table

i) If the cost of one pen is ₹ 5, what will be the cost of 8 pens?	$8 \times 5 = 40$
ii) If there are 7 balls in a bag, how many balls will be there in 4 bags?	$4 \times 7 =$ ___
iii) If the cost of one book is ₹ 10, what will be the cost of 7 books?	___ $\times 10 =$ ___
iv) If there are 6 button in a shirt, how many buttons will be there in 3 shirts?	___ $\times$ ___ $=$

3. Find the product of the following numbers using lattice multiplication

i) 22×25 ii) 34×51 iii) 45×24

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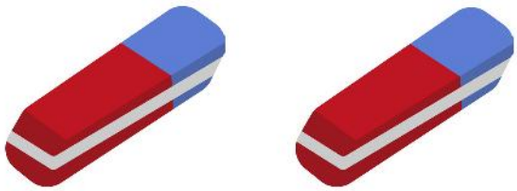
1.8 Number operations in daily life situations

 $= (2+2+2) = 2 \times 3 = 6$ balls

 $= (1+1+1) = 1 \times 3 = 3$ balls

Example 1

If the cost of one eraser is ₹ 4, what will be the cost of 2 erasers?



$4 + 4 = 8$

$2 \times 4 = 8$

The cost of two erasers = $2 \times 4 = 8$

Example 2

If there are 6 eggs in a box, how many eggs will be there in 5 boxes.



Number of Boxes = 5

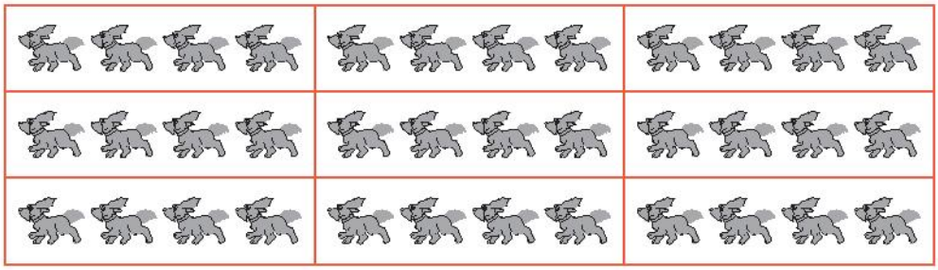
Number of Eggs = 6

Total Number of Eggs = $5 \times 6 = 30$

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Exercise

1. If there are 4 toys in a box. How many toys will be there in 9 boxes?



Number of Boxes =

Number of toys in each box =

Total Number of toys =

2. If there are 3 colour pencils in a packet. How many colour pencils will be there in 9 packets?

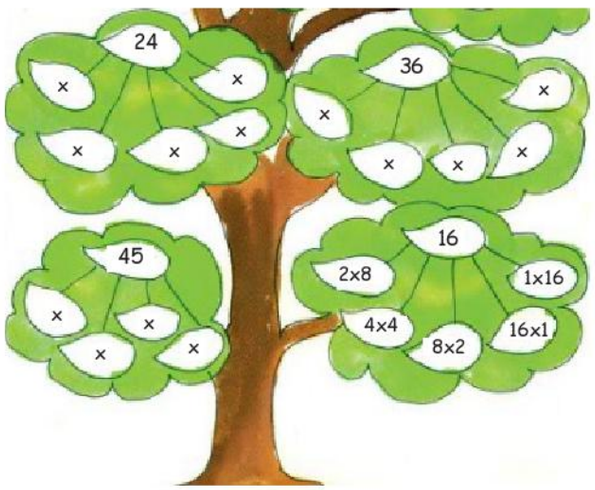


Number of packets =

Number of colour pencils in each packets =

Total Number of colour pencils =

3. Write the multiplication fact for the following products



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UNIT-2

PATTERNS



Pattern in Numbers

We have learnt about some patterns in shapes.

Let us learn about patterns in numbers.

2.1 Patterns in numbers for odd and even numbers and in adding odd and even numbers.

Recall

Circle the odd numbers in the given sequence.

i) 26, 29, 37, 42, 45.

ii) 85, 84, 75, 76, 65, 64.

iii) 11, 22, 33, 44, 55, 66.

iv) 357, 896, 572, 951, 865, 423.

v) 952, 698, 342, 780, 920, 850.

Complete the table from the above numbers.

Odd numbers	Even numbers

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Observe the number chart given below. Colour the odd numbers with green and even numbers with blue.

201	202	203	204	205	206	207	208	209	210
211	212	213	214	215	216	217	218	219	220
221	222	223	224	225	226	227	228	229	230
231	232	233	234	235	236	237	238	239	240
241	242	243	244	245	246	247	248	249	250
251	252	253	254	255	256	257	258	259	260
261	262	263	264	265	266	267	268	269	270
271	272	273	274	275	276	277	278	279	280
281	282	283	284	285	286	287	288	289	290
291	292	293	294	295	296	297	298	299	300

We observe that odd and even numbers occur alternatively.

Complete the patterns :

i) 21, 22, 23, ____, ____, ____, ____, ____.

ii) 1, 3, 5 ____, ____, ____, ____, ____.

iii) 2, 4, 6 ____, ____, ____, ____, ____.

iv) 85, 86, 87, 88, ____, ____, ____, ____, ____,.

v) 39, 41, 43, ____, ____, ____, ____, ____,.

Let's explore patterns while adding and subtracting odd and even numbers.

Add the following numbers:

i)

2 2	even
+3 2	even
____	even

ii)

7 3	
+8 5	
____	

iii)

7 5 5	
+2 8 6	
____	

3rd_Unit_02_Patterns.indd 20 18/08/2023 17:45:44

iv)
$$\begin{array}{r} 853 \\ +325 \\ \hline \end{array}$$

v)
$$\begin{array}{r} 978 \\ +876 \\ \hline \end{array}$$

vi)
$$\begin{array}{r} 252 \\ +553 \\ \hline \end{array}$$

Thus, we observe that addition of odd and even numbers involve a pattern.

Lets tabulate the patterns observed.

i)	Odd number	+	Odd number	=	Even number
ii)		+		=	Even number
iii)	Odd number	+		=	Odd number
iv)	Even number	+		=	Odd number

Subtract the following numbers:

i)
$$\begin{array}{r} 756 \\ -252 \\ \hline \end{array}$$

ii)
$$\begin{array}{r} 895 \\ -253 \\ \hline \end{array}$$

iii)
$$\begin{array}{r} 497 \\ -432 \\ \hline \end{array}$$

iv)
$$\begin{array}{r} 576 \\ -223 \\ \hline \end{array}$$

v)
$$\begin{array}{r} 235 \\ +521 \\ \hline \end{array}$$

vi)
$$\begin{array}{r} 782 \\ +141 \\ \hline \end{array}$$

Let's tabulate the patterns observed.

i)	Odd number	-	Odd number	=	Even number
ii)		-		=	Even number
iii)	Odd number	-		=	Odd number
iv)	Even number	-		=	Odd number

3rd_Unit_02_Patterns.indd 21 18/08/2023 17:45:45

2.2 Patterns using 10 in multiplication and division

Example:

i) 10,20,30,40,50 ii) 1,10,100,1000

iii) 2000,200,20,2 iv) 5000,500,50,5

Exercise

1. Make the patterns by multiplying with 10

i) 1,3,5,7, ---, ---, ---, ---

ii) 2,4,6,8, ---, ---, ---, ---

iii) 1,3,7,13, ---, ---, ---, ---

iv) 3,5,9,15, ---, ---, ---, ---

2. Make the patterns by dividing with 10

i) 110,120,130 ---, ---, ---, ---

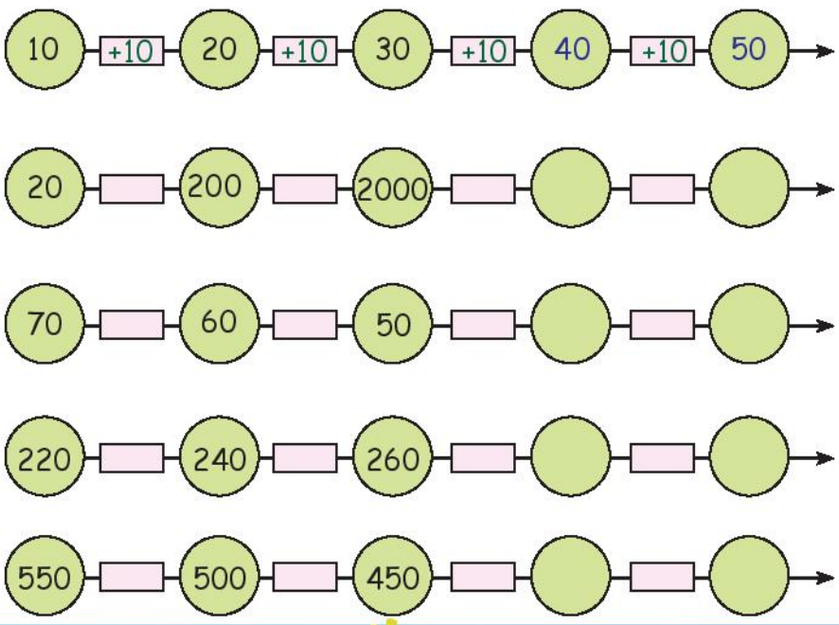
ii) 210,230,250 ---, ---, ---, ---

iii) 470,430,410 ---, ---, ---, ---

iv) 540,470,350 ---, ---, ---, ---

v) 500,510,520 ---, ---, ---, ---

3. Find the rule and complete the folllowing pattern.



3rd_Unit_02_Patterns.indd 22 18/08/2023 17:45:45

UNIT-3

MEASUREMENTS



Measurement of Weight

Recall

Tick the heavier object

i. 



ii. 



iii. 



iv. 



3rd_Unit_03_Measurement.indd 23 02-06-2024 16:37:49

3.1 Weighing objects using non standard units

Activity 1

Place your geometry box in one pan of the simple balance and weigh it using the following in the other pan (i) Tamarind seeds, (ii) Stones/ Pebbles and (iii) Eraser. Tabulate the weight found.



Objects	Non standard units
Geometry box	_____ Tamarind seeds
Geometry box	_____ Stones/Pebbles
Geometry box	_____ Erasers

Place a tiffin box instead of geometry box. You can try this activity with other objects also.

Objects	Non standard units
Tiffin box	_____ Tamarind seeds
Tiffin box	_____ Stones/Pebbles
Tiffin box	_____ Erasers

Weight of the object measured using tamarind seeds, stones/pebbles and erasers differ as they are not standard. Hence, we use standard weighing object called weighing stones.



3rd_Unit_03_Measurement.indd 24 02-06-2024 16:37:49

3.2 Conversion of weight in gram and kilogram.

We use standard units such as milligrams, grams and kilograms to measure weight.

Heavier things are measured in **kilograms**. It can be shortly written as **kg**

Lighter things are measured in **grams**. It can be shortly written as **g**

1 kilogram = 1000 gram

1 gram = 1000 milligram

Do You Know

$\frac{1}{2}$ kg = 500 grams

$\frac{1}{4}$ kg = 250 grams

$\frac{3}{4}$ kg = 750 grams

Conversion of weight



1kg = 10 packets of 100g

= 1000g



2kg = 20 packets of 100g

= 2000g

Find the number of 100g packets used to fill 3kg of rice.

_____

3rd_Unit_03_Measurement.indd 25 02-06-2024 16:37:52

Exercise

1. Circle the odd one out.

i) gram kilogram metre

ii) 50g 500g 100cm

iii) 1 m 2 kg 5 kg

2. Fill in the blanks

i) 1000 grams = _____ kg

ii) 2 kilograms = _____ grams

3. Write in short form:

i) gram = _____

ii) kilogram = _____

4. Find the number of bags to be used to fill the given items, if one bag can hold 100 g of the given items.

Items	Quantity bought	weight in grams	number of bags
Pepper powder	1 kg		
Coriander powder	2 kg		
Coffee powder	5 kg		
Dhal	10 kg		
Mustard	2 kg		
Cashew nut	500 g		

5. Answer the following:

i) Price of 100g of icecream is ₹ 20. Ramya bought 1Kg of ice cream. How much should she pay to the shopkeeper.

ii) Price of 1 Kg of sugar is ₹ 50. Ranjith bought 2000g of sugar.Find the amount she has to pay to the shopkeeper.

iii) Saranya had 3 Kg of flour to be packed into packets of 500g each. In how many packets can she pack the flour?

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UNIT-4

TIME



4.1 Reading time correct to the hour

In the class room

Children : Good Morning Teacher.

Teacher : Good Morning Children. Ramya, When do you come to school?

Ramya : By 8 O'Clock teacher.

Teacher : How do you know the time?

Ramya : My mother tells me the time by looking at the clock, teacher.

Teacher : Do you know to find the time by looking at the clock?

Ramya : No Teacher.

Teacher : Children, Today we shall learn to find the time by looking at the clock

Observe the face of the clock.

The face of the clock is marked with numerals (1 to 12).

The clock has two hands. One hand is longer and another is shorter.

3rd_Unit_04_Time.indd 27 02-06-2024 16:39:04

The longer hand is the minute hand. it shows time in minutes.



The shorter hand is the hour hand. It shows time in hours.

When the minute hand is at 12, the hour hand tells the hour of the day.

5'O clock

The short hand of the clock is at 5.

The long hand of the clock is at 12

So the time is 5'O clock.

We write it as 5:00.



After 1 hour

6'O clock

The short hand of the clock is at 6.

The long hand of the clock is at 12.

So the time is 6'O clock

We write it as 6:00





Activity 1

SWK02

Look at the position of the hour hand and write the time in the given box.











3rd_Unit_04_Time.indd 28 02-06-2024 16:39:05

Activity 2

Draw the hands in the following clocks to show the given time.



11'o clock



1'o clock



5'o clock



7'o clock



6'o clock

Activity 3

Tick the clock which shows the time mentioned below.

	1 Hour later			
	2 Hour later			
	1 Hour later			
	2 Hour later			
	3 Hour later			

3rd_Unit_04_Time.indd 29 02-06-2024 16:39:05

UNIT-5

2 Information Processing



Modelling - Map Making

5.1 Making a map of known areas.

Map of Mala's Village



Mala has drawn the map of her house.

We shall locate the places from the above map as follows

- The garden is in the left side of the house.
- The house is in the right side of the garden
- The river is in the right side of the pond.
- The pond is in the left side of the river.

3rd_Unit_05_Information.indd 30 7/13/2022 4:56:40 PM

Activity

Discuss with your friends and draw the map of your classroom.

5.2 Mark routes for the given locations.

Given below is a map of a town showing some important places/ landmarks.
Divya wants to go to library. One of the ways to reach the library from her house is shown below.



Observe the map and answer the following questions.

1. Name the location that Divya would pass in the given route.
2. From the library, Divya needs to reach pharmacy. Trace the path and name the landmarks between library and pharmacy.
3. Trace another route from Divya's house to reach library.
4. Mention any two places between museum and park.

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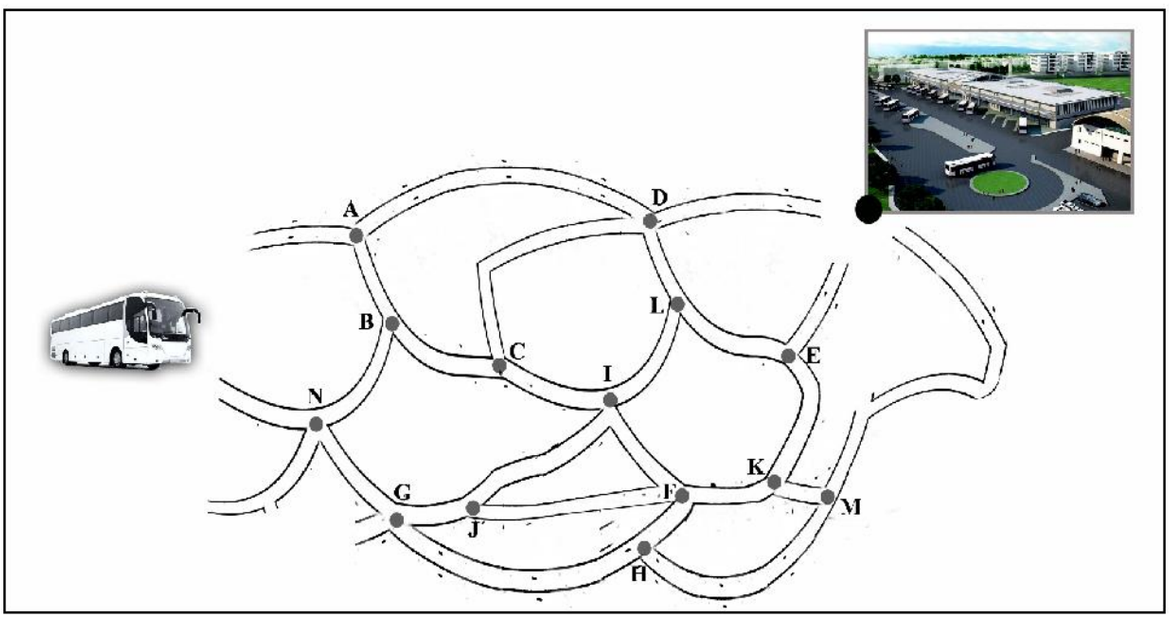
Activity

1. Try to draw map of your school and mark the routes to reach headmaster's room from your class room
2. Collect some puzzles related to road map from your school library.

Exercise

Help the bus driver by marking the routes in the map to land the bus in bus stand.

Mark all the possible routes and suggest the best route.



Ways:

1. A → B → C → I → L → E
2.
3.
4. Write the shortest route.
5. Write the longest route.

3rd_Unit_05_Information.indd 32 7/13/2022 4:56:42 PM

5.3 Devising instructions for going from one location to another on a map



Activity

- Teacher shall prepare chits of locations well known to children.
- Divide the children in groups of two each
- First player will pick up two chits from the lot and show one chit to every one and fix the place as starting point.
- He / She will show second chit only to the teacher. That place in the chit is fixed as the destination
- First player will give clues (i.e) route to help the second player to find the destination.
- The second player shoud find the correct destination. Team which finds the correct destination within the given time is considered as winners.

5.4 The quick way of finding 10 more than and less than a given number.

KP7SC

Colour the table in the next page by skip counting in tens as per the instructions given below.

1. Colour the numbers starting from 12 in blue.
2. Colour the numbers starting from 6 in pink.
3. Colour the numbers starting from 5 in yellow.
4. Colour the numbers starting from 9 in orange.

After colouring observe the table and fill in the blanks.

1. 10 more than 45 is _____.
2. 10 less than 45 is _____.
3. 10 more than 22 is _____.
4. 10 less than 22 is _____.

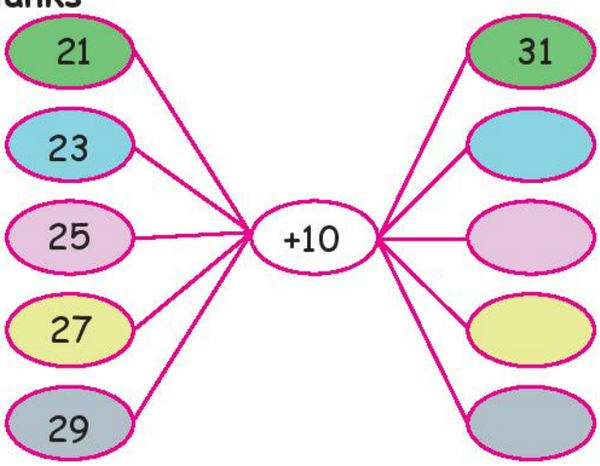
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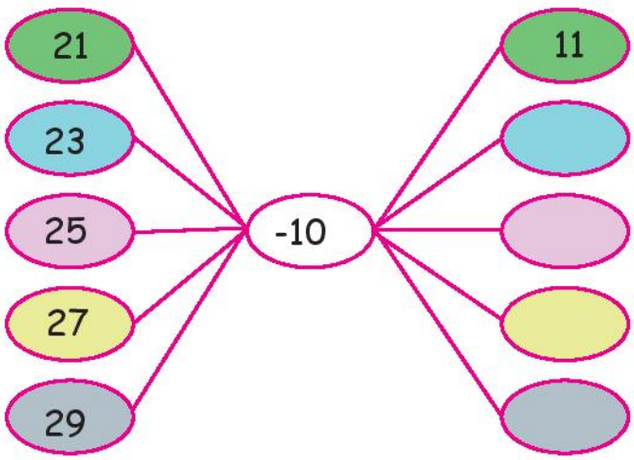
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



Activity

Complete the blanks





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E-Book

IZNJF

Evaluation

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Unit 1

Food



Learning Objectives

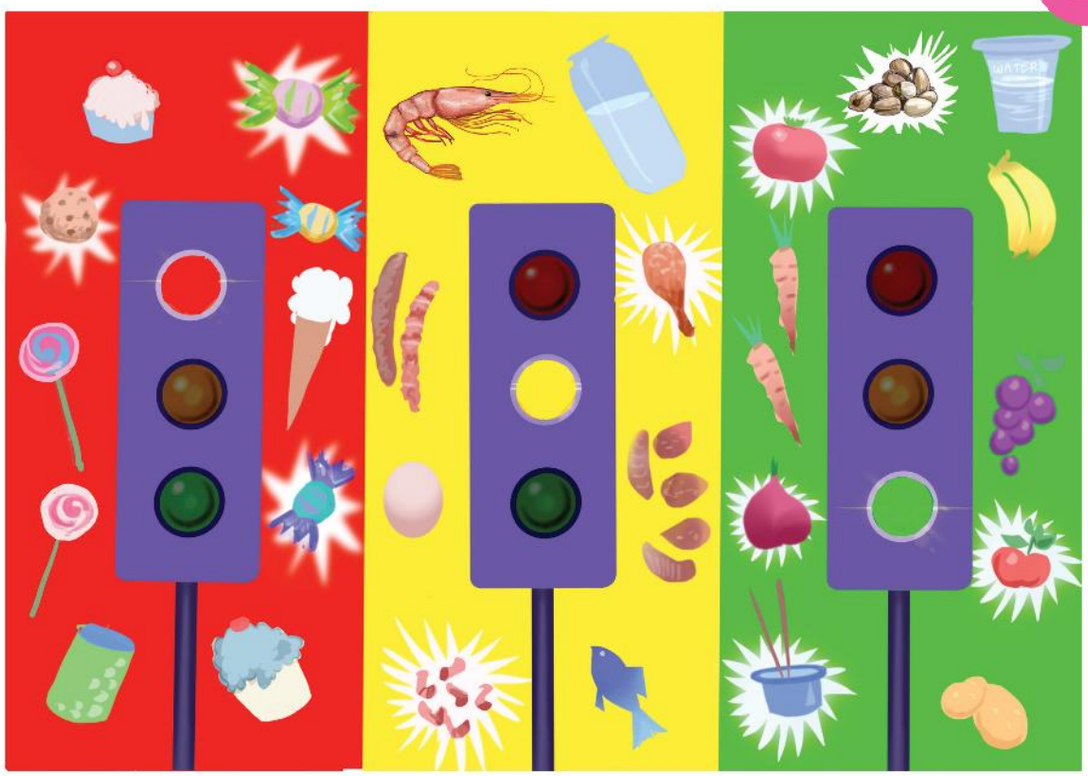
After learning this lesson, students will be able to

- classify different nutrients in food
- describe balanced diet
- distinguish between various meals in a day
- understand different food habits based on the places and age groups
- identify traditional food and explain the advantages of a home garden

OGI3N

Warm-up

Observe the picture and answer the questions given below.



a. The food items which should be avoided are indicated by ---------- colour.

b. The food items which are healthy are indicated by ---------- colour.

C. The food items which can be eaten in small quantities are indicated by -------- colour.

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I. Food Nutrients

Think: Why do you eat every day? What happens if you don't eat sometimes?

Every day we feel hungry and then eat something.
Our body is telling us that it needs food. Why do we need food?

- Food gives us energy to work and play.
- Food builds our body.
- Food keeps us healthy.

We eat different food items, some are raw and some are cooked. Each of these food items contains different nutrients. There are **five main nutrients** that our body requires. They are **carbohydrates, proteins, fats, vitamins and minerals.**

1. Carbohydrates

Do you know? World Food Day is observed on October-16.

Our body needs energy to do work, play and do other activities. Carbohydrates are **energy-giving food.** Food that contains carbohydrate are **rice, wheat, potato, sugar cubes and bread.**







2. Proteins

Proteins build, maintain and replace the tissues in our body. They are also known as **body - building foods.** E.g., **Fish, Milk, Egg, Nuts and Sprouted seeds.**







3. Fats

Fats provide energy to us. They act as body's **energy reservoir.** Fats also help us to keep our body warm during very cold weather. But, too much fat in the body may lead to obesity or overweight. Some food items that contain fat are **cheese, butter, ghee, meat, oil and nuts.**



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4. Vitamins

Our body needs vitamins to work properly. They **protect** our body from **deficiency diseases**. E.g., **Carrot, Orange, Gooseberry, Papaya and Greens.**







5. Minerals

Minerals help in the formation of blood, bone, teeth, etc. They **regulate the body functions**. E.g., **Fig, Pear, Garlic, Banana and Apple.**

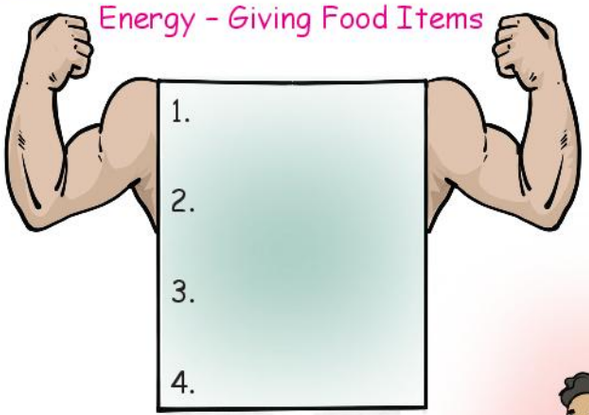




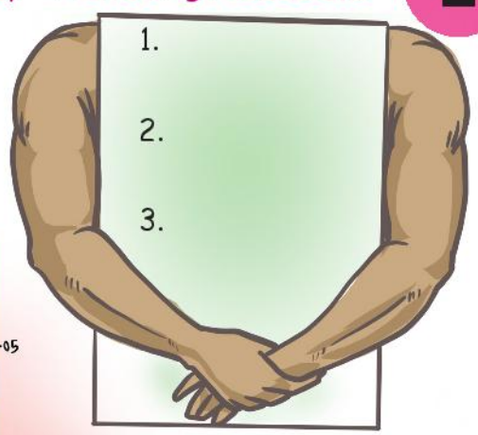


Let us Write

Energy – Giving Food Items



Body – Protecting Food Items

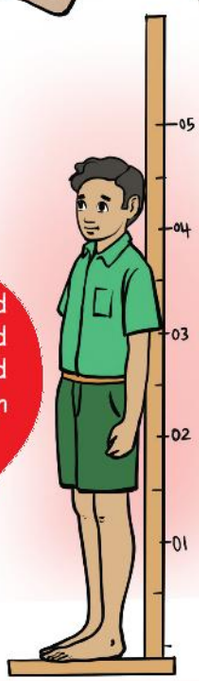




Be Sensitive

Most children love to eat food items like burgers, pizzas and chocolates, which are not good for health. They make children to gain extra weight.

Avoid eating unhealthy foods and eat nutritious food to stay healthy. A healthy snack may include sprouts, fruits and salads.



Body - Building Food Items

1.

2.

3.

4.

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Let us Write

A. What are the nutrients present in the following food items?

1. Rice contains _____ .
2. Coconut oil contains _____ .
3. Egg contains _____ .
4. Fig contains _____ .
5. Carrot contains _____ .

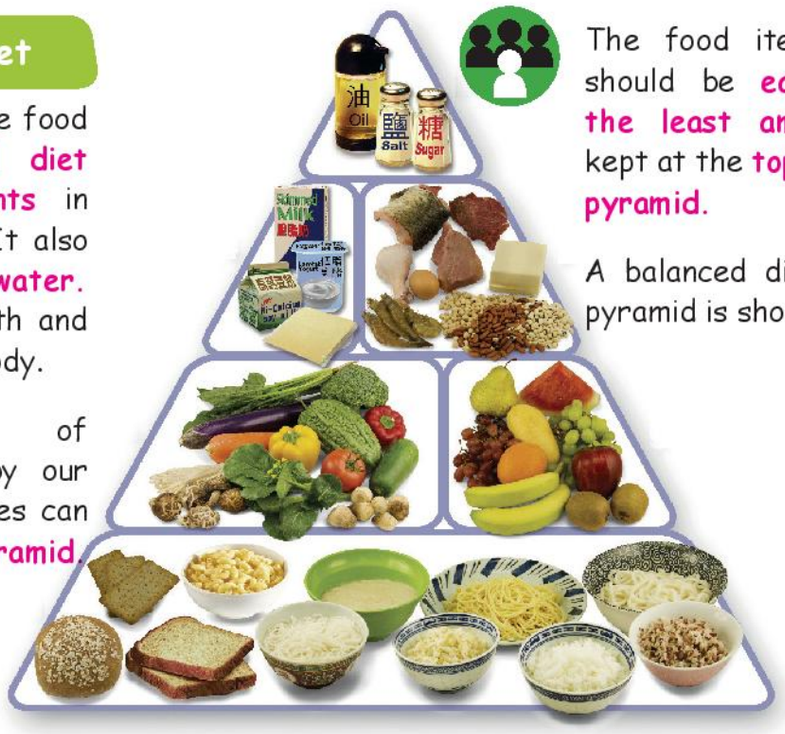
B. Fill in the table given below.

Sl. No	Nutrients	Why do you need it?	Sources (Food items)
1	Carbohydrates	They give us energy to work and play	
2	Vitamins		Carrot
3		They help to build our body	
4	Fats	Reservoir of energy	
5	Minerals		

II. Balanced diet

Diet refers to the food we eat. A **balanced diet** contains **all nutrients** in the right amounts. It also includes **fibre and water.** It helps in the growth and development of our body.

The quantity of nutrients required by our body and their sources can be shown by a **food pyramid.**



The food item that should be **eaten in the least amount** is kept at the **top of the pyramid.**

A balanced diet food pyramid is shown here.

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Roughage, also known as fibre is an indigestible food that our body cannot absorb. It is present in foods such as legumes, whole grains and vegetables.

Milk is a complete balanced diet.



More to know

- Carrot contains Vitamin-A
- Bran contains Vitamin-B
- Gooseberry contains Vitamin-C
- Milk contains Vitamin-D
- Sunflower oil contains Vitamin-E
- Cabbage contains Vitamin-K

Let us Find

Unscramble the following words and search them in the given grid (One is done for you).

ELBATEGEV - VEGETABLE

AITVIMN -

INMELAR -

MKIL -

WTERA -

HEGE -

RCIE -

GEG -

FSHI -

X	N	Z	R	V	W	S	R	Y
V	E	G	E	T	A	B	L	E
I	W	H	M	k	T	J	O	C
T	B	E	I	C	E	F	H	I
A	J	E	L	S	R	X	Q	R
M	L	A	K	W	E	G	G	I
I	C	M	I	N	E	R	A	L
N	H	S	I	F	H	D	A	N

Let us Do

Design a meal for your lunch.



Health Care!

Drink plenty of water every day. We should not spill the food while eating.

My Menu

To check whether it is a balanced diet, split your meal according to the nutrients.

Carbohydrates	Proteins	Vitamins and Minerals	Fats

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III. Meals in a day

A meal is what we eat during a particular time of the day. **Breakfast, lunch and dinner are the three main meals we eat every day.**

Kaviya and Suriya are studying III standard. They leave home at **8.00 am** to go to school and they have their **breakfast** before going to school. Their mother usually makes food items like idly, dosa, bread with egg, ragi koozh, idiyappam, poori, aappam and pongal.



Think: What do you usually eat for breakfast?

At **12.40 pm,** the school bell rings for **lunch** break. Kaviya and Suriya both **wash their hands** and sit down to eat lunch with their friends. All of them place their **lunch towel** on the floor and start eating.

Kaviya, Suriya and their friends share their lunch, which include lemon rice, fruit salad, greens, rice along with sambar, biriyani, tomato rice, vegetable salad, curd rice, tamarind rice and cereals.



Think: Which of the food items that are brought by your friends for lunch?

Kaviya and Suriya have their dinner half an hour before going to bed. They like having chappathi, milk and fruits, and on some days idli, dosa or rice.

Think: At what time you go to bed every day? At what time you have your dinner?

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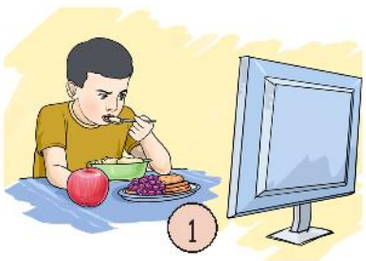
Let us Do

Ask your friends what they like to eat and complete the table.

Friends' Name	Breakfast	Lunch	Dinner

Try to Answer

Look at the pictures of different activities.











1. Which activities are healthy? ----------

2. Which activities are not so healthy? ----------

Do you know?

The amount of time you should spend for washing your hands each time before eating is at least 20 seconds. That is about as long as it takes you to sing the 'happy birthday' song twice! Try it when you wash your hands next time.

IV. Food Habits in Different Places

Food habit of people at a particular place **depends on the climate, culture and availability of food.** For example, in coastal areas, people eat a lot of sea food. India is a country with different climate and culture.

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South Indians depend on rice, dhal, coconut, jaggery for their food. Hence, they make food like Idly, Sambar, Kozhukkattai and Payasam.



North Indians depend on wheat, onions, milk and curd. Hence, they make foods like Chappathi, Paratha and Lassi.

Food habits in Different Age Groups

The amount of food a person needs depends on his age. These needs change with age groups and level of physical activity. **Athletes** may need **more** amount of **energy** during training. Young children should eat a wide variety of food.

The following food items can be eaten by the people of different age groups in order to maintain good health.

Children



Milk, honey, fruits, vegetables, whole grains, egg, sprouted seeds and fish.

Young Adult



All vegetables and fruits, sea food, greens, milk and milk products.

Old Adult



Fibrous food, low fat dairy products, food with less salt, ragi, thinai and pearl millet (kambu).

Try to Answer

Some of the famous food items of Tamil Nadu are given below. Write the unique food items of the given place.

(halwa, murukku, jackfruit, spices, kadalai mittai, mango, tea)

1. Manapparai is famous for _____.
2. The Nilgiris is famous for _____.
3. Panruti is famous for _____.
4. Kollimalai is famous for _____.
5. Tirunelveli is famous for _____.
6. Kovilpatti is famous for _____.
7. Salem is famous for _____.

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Let us Discuss

Observe the pictures. Who needs more nutritious food? Why?





Try to Answer

Do your parents prepare the same food items for all festivals? If not, write the name of special food items prepared on different festivals.

Sl. No	Name of the festivals	Food items prepared
1		
2		
3		
4		
5		

Compare and discuss your list with that of your friends'.

V. Traditional Food

Our ancestors ate food that were easily available from nature, which lead to healthy lives. Few **natural foods** are **Ragi, Thinai, Samai, Kuthiraivaali, Varagu and Kambu.**







Different Varities of Ragi Food : Ragi ball, Dosa, Adai, Vermicelli and Biscuits.













Do you eat Ragi? Of all the cereals we eat, ragi is the best body builder and disease fighter.

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Home Garden

Cultivation of crops in a small available place in house-holds is known a **Home garden or Kitchen garden or Nutrition garden.** E.g., Vegetables like tomatoes, brinjal, snake gourd, broad beans, lady's finger and fruits like banana, lemon and also herbs.





Advantages of Home Garden

- It is the easiest method.
- Waste water can be reused.
- It saves our money.
- We get vegetables which are fresh and high in nutritive value.



Let us Do

A. Colour the circle in 'GREEN' for traditional food and 'RED' for modern food.

Ragi Koozh ◯	Pizza ◯	Thinai ◯	Ragi Ball ◯
Samai Rice ◯	Kambu ◯	Paratha ◯	Noodles ◯
Ragi Adai ◯	Burger ◯	Biriyani ◯	Chips ◯

B. Using watercan / coconut shells, make a mini garden in your classrooms.

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EVALUATION

JDMN6

I. Choose and write the correct answer.

1. Bread, wheat and potato are rich in _____ .
   a. fats b. carbohydrate c. protein d. roughage

2. A balanced diet contains _____ .
   a. Carbohydrates and vitamins b. Proteins, fats and minerals
   c. Fibre and water d. All the above

3. The Vitamin present in carrot is _____ .
   a. Vitamin-K b. Vitamin-A c. Vitamin-D d. Vitamin-E

4. Which of the following are not good for you?
   a. Eating green vegetables b. Washing vegetables before cutting them
   c. Eating lot of fat food items d. Eating lot of pulses

5. The given picture shows that Raman is most likely eating his
   a. Breakfast b. Lunch c. Dinner



II. Fill in the blanks.

1. Food rich in _____ are called body-building food.
2. _____ helps in proper functioning of our body.
3. A _____ is necessary for the proper growth and development of our body.
4. Sprouted seeds contain more _____.
5. _____ is the second meal of a day.

III. Match the following.

1.	Carbohydrates and fats	-	Supports body growth
2.	Vitamins	-	Regulates body functions
3.	Protein	-	Energy-giving food
4.	Minerals	-	Fights diseases

IV. Answer the following questions.

1. How many nutrients are there? What are they?
2. Siva is 6 years old. He needs to have good amount of proteins. Give reason.
3. What is a balanced diet?
4. What are the meals in a day?
5. What are some traditional food items?
6. Write any three advantages of a Home Garden.

V. Project work.

Collect pictures and prepare a chart on "Food Nutrients".

3rd Science Unit 1_Food.indd 47 11-07-2022 13:12:22

Unit 2

Water



Learning Objectives

After learning this lesson, students will be able to

- understand the importance of water
- list the sources of water
- understand the methods of preventing wastage of water
- explain the methods to conserve water bodies
- know about problems caused by to stagnant water

70DMS

Water... Water!

Rhyme Time

A thirsty bird from far away
Looked for water on its way
Empty ponds and lakes dry
Everywhere did it try.

Suddenly it spotted a dripping tap
A boy carelessly leaving it open
Was walking away.

The bird flew down and drank
To the little boy it said,
"Water is precious do not waste it
Close the tap after you drink!"

The boy realised and said, 'sorry'.
He closed the tap and went satisfied
The bird flew on singing a happy song.

3rd Science Unit II_Water.indd 48 11-07-2022 13:28:57

I. Water -A primary source of life

Water is one of the most important resources on Earth. All living things like small organisms, plants and animals need water to survive. People use water for various purposes. Rain is one of the main sources of water.



- A camel can drink 60 to 100 litres of water at a time and live without water for several days.
- World Water Day is observed on 22nd March.

Let us Write

Observe the picture and fill in the blanks.



We need water to ---------- our face.

We need water to ..... our teeth.





We need water to ..... our food.



We need water to ..... our vessels.



We need water to ----------.

Let us Do

A. Tick (✓) the activities for which water is needed.

To play	☐	To grow plant	☐	To row a boat	☐
To sing	☐	To write	☐	To knead dough	☐
To run a fan	☐	To paint pictures	☐	To wash dress	☐

B. Name any four activities which you can do without water.

---------- ---------- ---------- ----------

3rd Science Unit II_Water.indd 49 11-07-2022 13:29:00

Let us Discuss

We find animals in this picture near a water source. Why they are gathered here?



Write few lines about this picture.

_____

Wild animals need water. Hence, they come to water bodies in the forests. Just like us, animals too drink water when they are thirsty.

Ask your teacher:
Why wild animals are entering into human habitat?

II. Potable Water

Drinking water is known as potable water. Potable water is water that is good to drink and useful for food preparation.



Potable Water should be:

- ❖ free from dangerous chemicals.
- ❖ transparent.
- ❖ odourless and colourless.
- ❖ free from bacteria which cause diseases.

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Different Sources of Drinking Water

Water is available in many natural sources, but not all the water sources are suitable for drinking. Water should be boiled to kill the germs in it, and only then it is suitable for drinking. A few sources of water are rain, well, river, lake and stream.

Let us Write

Rearrange the jumbled letters to find out the different sources of water.

E.g., Rain (anir)

_____ (a l k e) _____ (o p d n) _____ (m e r a t s)

_____ (e l l w) _____ (e a s) _____ (o n a e c)

Let us Discuss

Observe the pictures. Put a tick (✓) for the water which is good for drinking. Discuss about these with your friends.



Try to Answer

I freeze when I am cold and

I fall softly as snow,

I melt in the Sun and down the mountain I flow.

Who am I?_____

3rd Science Unit II_Water.indd 51 11-07-2022 13:29:04

Let us Do — Let us assemble a Simple Pump

Materials needed: Any hollow tube – PVC, metal or even a long papaya stem

Procedure:

Hold the tube with your left hand and move it up and down into a bucket of water. Keep the palm of your right hand on the top of the tube and open and close it with each up and down reciprocation. Soon, water will start squirting out. Here the up-down motion of the left hand does the pumping while the right palm acts like a valve.



More to know

Each person on the Earth requires at least 20 to 50 litres of clean and safe water per day for drinking and other activities.

III. Why should we save water?

Only 3% of the water in the entire Earth is freshwater. Water is precious. So, we should never waste water.

Some methods to prevent wastage of water:

- Never allow water to overflow from buckets.
- Wash fruits and vegetables in a bowl of water and not under running tap water.
- Always close the taps while brushing the teeth.
- Use left over water in your water bottle to water a potted plant.
- Turn off the tap after each use.
- Use a sprinkler to water the garden.



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Try to Answer

Write some activities through which we can save water.

Let us Do

Answer the following questions by putting a tick (✓). If your answer is different from the pictures given below, write its name in the empty box.

1. Which one do you use to drink water?






2. Which of these is used to store drinking water at your home?






3. Where do you get your drinking water from?






Let us Complete

Join the dots and colour the picture. Complete the message.





How people stored water in olden days?

In olden days, people stored water in lake, well, water tanks, pond, reservoirs and dams.

Save every ..... water

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IV. Conservation of Water Bodies

All the water that we get comes from rain. When it rains, some water flows over the ground giving rise to streams and rivers. Some water gets collected in low lying areas such as ponds and lakes. The flow of the river is blocked by building a dam across it. Some rainwater seeps into the ground as underground water.



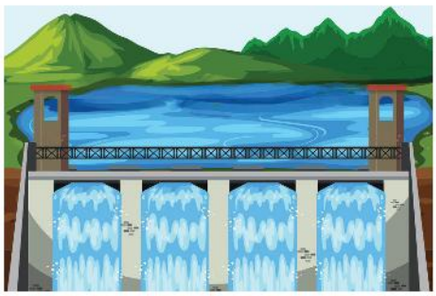
Lake

It is a large area filled with water surrounded by land. It is usually a part of a river or some other water source.



Pond

A pond is a body of stagnant water, either natural or artificial. It is smaller than a lake.



Reservoirs

These are built in areas of low rainfall or in areas where there is no major river. Most of the reservoirs are built using stones. Sathiyamoorthy reservoir located at Tiruvallur district in Poondi village.

Water Tanks

A water tank is a container for storing water for our daily use.



Methods to Conserve Water Bodies

- Deepening of ponds and lakes
- Plant trees at the banks of the lake and pond
- Reducing the water pollution
- Avoid digging too many wells in a region

Use your brain power...

The trees in the forests need water to grow. From where do they get the water?

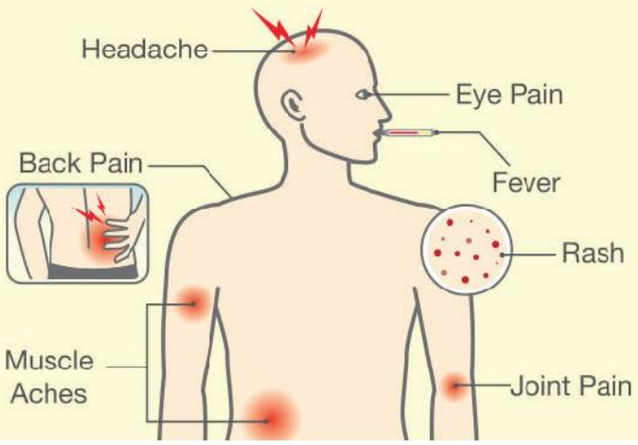
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Problems caused due to Stagnation of Water

- Stagnant water can become a breeding ground for the mosquitoes that transmit diseases. Malaria and Dengue Fever are the main dangers of stagnant water.
- Waterborne diseases such as cholera, dysentery, typhoid are caused by drinking unclean water.

Symptoms of Dengue Fever:

- Severe headache
- Rashes on the arms and legs
- Extreme tiredness
- Sudden onset of fever that lasts 3-7 days



Discuss with your friends and write. What will happen, if you drink unclean water?

_____

Let us Do

A. Find out the activities which are useful to save water and put (✓) for the right ones and put (x) for the wrong ones.

1. We should wash our vehicles everyday. ☐
2. Planting more trees leads to rain fall. ☐
3. We can bathe in shower to save water. ☐
4. It is necessary to collect rain water. ☐

B. Look at the pictures and answer the following.



If we fill them with water,

1. Which one will contain less water? ----------
2. Which one will contain more water? ----------
3. Why? Justify your answer? ----------

3rd Science Unit II_Water.indd 55 11-07-2022 13:29:12

Let us Do

Read the table given below. Then put tick (✓) in the column of the sources of water used for various purposes.

Uses of Water	River	Pond	Sea	Stream	Hand Pump	Well	Tap
Cooking							
Drinking							
Bathing							
Gardening							
Washing Clothes							
Washing Vessels							
Washing Domestic Animals							

Always remember everyone should take care and keep the public resources of water clean. It is each one's responsibility to do so.

EVALUATION

V8PNS

I. Choose the correct answer.

1. Which is the main source of water?

(a) Lake (b) Sea (c) Rain

2. ---------- of the water in the entire Earth is freshwater.

(a) 3% (b) 0.3% (c) 30%

3. By _____ water, we can kill the germs.

(a) boiling (b) cooling (c) filtering

4. Which of these is not true?

(a) Plants and animals need water too (b) We should always waste water

(c) We should use water carefully (d) Water is essensial

5. Where does the rain water go after falling on the ground?

1. Seeps into the ground 2. Plants absorb the water

3. Mingles with sea and ocean 4. Mixes with lake and pond

(a) 1 and 2 (b) 1, 3 and 4 (c) 1, 2, 3 and 4

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II. Fill in the blanks.

1. Drinking water is known as_____. (pot water / potable water)
2. Water that collects in the low lying areas is called_____. (sea / lake)
3. It is our _____ to keep the public water resources clean. (responsibility / work)
4. The largest source of water on the earth is _____. (river / sea)

III. Circle the odd one.

1. Lake	Hill	Pond	Sea
2. Lily	Lotus	Rose	Water Hyacinth
3. Fish	Horse	Tiger	Cow
4. Bathing	Combing	Swimming	Washing

IV. Write true or false.

1. Living things do not need water.
2. Saving water is our duty.
3. Always close the water tap while brushing teeth.
4. A tank is a large area to store water compared to reservoirs.

V. Answer in one or two sentences.

1. Write any three different sources of water.
2. Write the symptoms of dengue fever.
3. Write any two diseases that are spread by mosquitoes.

VI. Answer the following.

1. Why is water known as primary source of life?
2. Suggest some ways to save water at home.
3. List out the ways to conserve the water bodies.

VII. Think and answer.

1. How will you avoid wastage of water in your school?
2. Write some slogans to save water.

VIII. Project work.

Collect the pictures of different sources of water and make an album.

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Unit 3

Plants



Learning Objectives

After learning this lesson, students will be able to

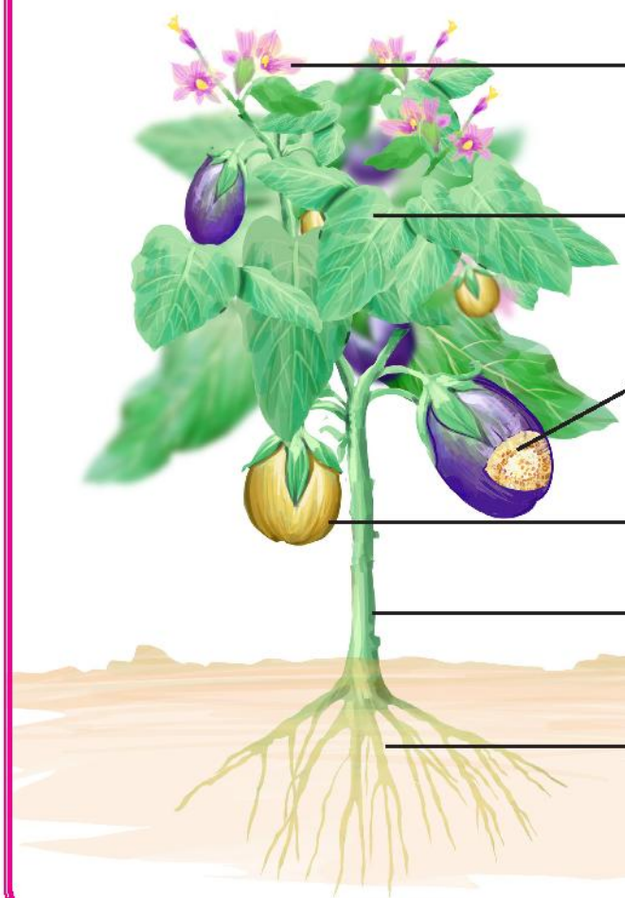
- identify the parts of a plant
- understand the functions of different parts of a plant
- classify plants based on their habitat

D16RK

Warm-up

Unscramble the words and label the parts of the plant.

(ETSM, TORO, ELFA, FURTI, LOFEWR , SDEE)



3rd Science Unit III_Plants.indd 58 11-07-2022 14:31:40

I. Plants are nature's gift

A plant has many parts. Each part has a set of function to do.

The basic parts of a plant are root, stem, leaf, flower, fruit and seed.

Let us learn about various parts of the plant, their structure and function.

Root

The root is the part of a plant that usually grows under the soil. Roots can be of different shapes and sizes. It grows away from sunlight into the soil. They are of two main types: tap root and fibrous root.

Taproot

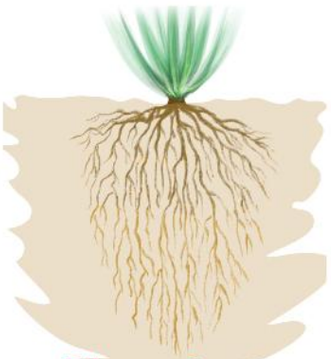


Taproot

Taproot has one main, thick root. It grows from the radicle and goes deep into the soil. Many small thin roots grow out from the main root. Plants such as **carrot, beetroot, turnip, mango and neem** have taproots.

Fibrous Root

Fibrous root consists of many thin roots of different sizes. They grow from the base of the stem and all of them are bunched together. They do not go deep into the soil. Plants such as **grass, paddy, wheat and onion** have fibrous roots.



Fibrous Root

Functions of Root

Fixation: Root fixes the plant firmly to the soil. Without the roots, a plant would fall on the ground.

Absorption: Roots absorb water and minerals required for the plant from the soil.

Storage of food: In some plants, roots store food. **E.g.,** Carrot, Radish, Beetroot.

Difference between taproot and fibrous root

Taproot	Fibrous root
Thick main root that goes deep into the soil.	No main root and the roots do not go deep into the soil.
Side roots are developed from the main root.	Roots are developed from the base of the stem.
Looks like a long tap E.g., Tamarind, Guava.	Looks like a bunch. E.g., Corn, Sugarcane.

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Do you know?

Avecinnia plants have roots above the ground.



Let us Do

Take two small potted plants. Cut the root of one of the plants and fix it in the pot. Now water the plants for two to three days. You will observe that the plant without roots will wilt and die. In the absence of roots, plants die.

This acivity proves that the function of the roots is to absorb _____ and _____ from the soil.

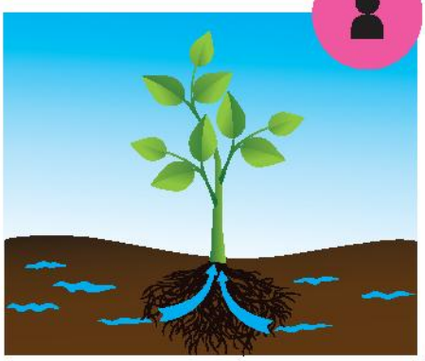
Let us Do

Take two coconut shells. Fill them with soil. Sow green gram in one and paddy in another. Keep them under sunlight and water them. After a week observe the features of the roots.

Let us Write

True or false.

1. The roots grow into the soil.
2. Fibrous root has a main root.
3. Root absorbs water from soil.
4. Potato stores food in its root.
5. Grass has fibrous roots.



II. Stem

Stem is the main part of the shoot system. It grows towards the sunlight. It looks green when it is young. Branches, leaves, buds, flowers and fruits grow from the stem.



Coriander



Banyan Tree

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Herbs such as **coriander and mint** have a thin and **weak stem. Trees** such as **peepal** and **banyan have very strong and thick stem called trunk.** As trees grow older, their trunks grow wider.

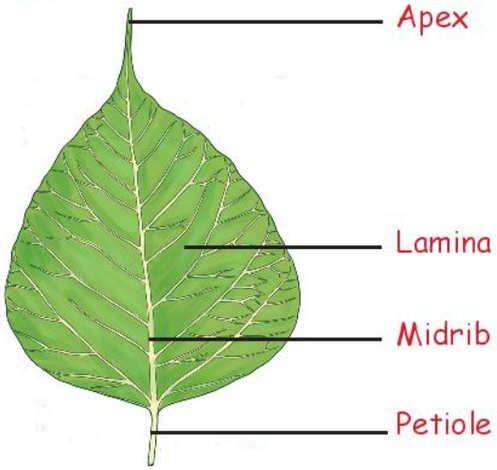
Functions of Stem



- It **supports** the whole plant.
- It **transports** food from leaf and water from root to various parts of the plant.
- Some stems **store excess food** in them. E.g., Potato, Onion.

Leaves

Leaves originate from the surface of the stem. It is flat, thin and green. Leaves of different plants have different shapes, sizes and colours. Some leaves have even a specific smell.



Functions of Leaf

- Leaf prepares food for the plant with the help of water, carbon dioxide in the presence of sunlight and chlorophyll. This process is called photosynthesis. Hence, it is called the food factory of the plant.
- The loss of water in the form of water vapour happens through the tiny pores in the leaves. This process is called transpiration. It gives cooling effect to the plant.
- Leaves of some plants are edible and rich in nutrients. E.g., Greens, Cabbage.

Let us Play

Collect the leaves of coriander, mint, eucalyptus, tamarind, amla, neem and tulsi.



Select two students and cover their eyes with a handkerchief. Give one leaf to each of them and ask them to identify the leaf by touching or smelling. Find out who identifies more leaves.

Which method is easier to identify?

Touching or smelling? ---------- .

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Let us Do

Collect the leaves of different kinds of plants and do the following activities.

1. Arrange the leaves from small to big.
2. Group the leaves based on its colour.

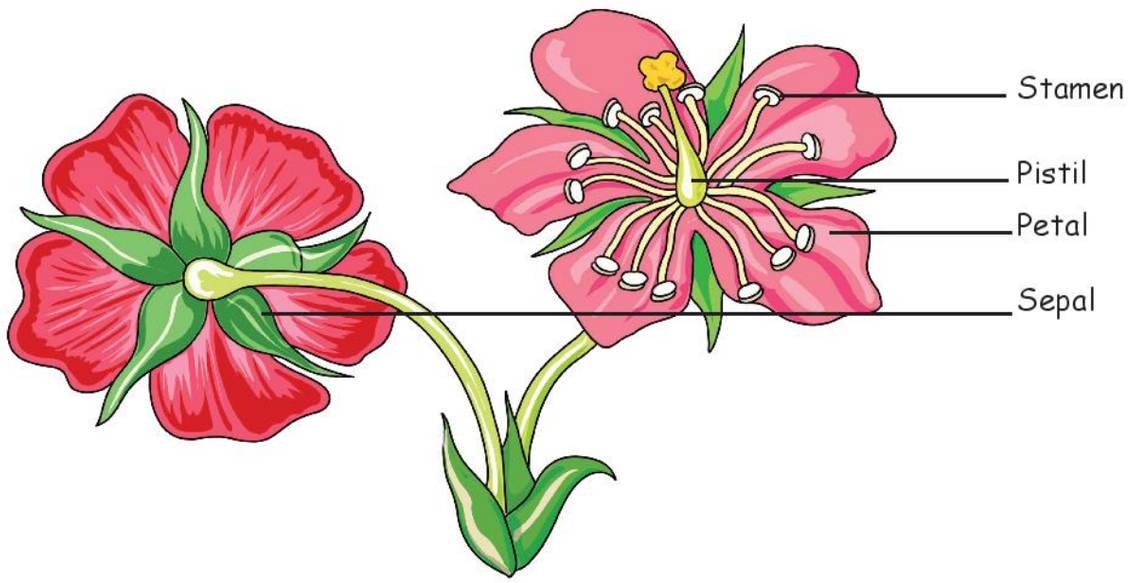
Let us Write

Fill in the blanks.

1. _____ grows towards the sunlight.
2. Leaves originate from the _____.
3. Green part of the plant that makes food is called _____.
4. _____ gives support to the whole plant.
5. Water from the soil is absorbed by the _____ of the plant.

III. Flowers

Flowers are the most beautiful part of the plant. They are of different shapes, size, colours and fragrance. A flower develops from the bud. The soft and brightly colored part of a flower is called petal. The green part that lies under the petal is called sepal. The middle of the flower has two parts called stamen and pistil.



Functions of the flower

- It develops into fruit.
- It helps plant to reproduce.

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Fruits and Seeds

Fruit is the fleshy part of the plant. The fruits are developed from the flowers. Most fruits have seeds.

- Some fruits have only one seed. E.g., Apricot, Mango, Coconut and Peach.
- Some fruits have many seeds. E.g., Papaya, Watermelon and Orange.
- Some are seedless. E.g., Pineapple and Banana.



Apricot



Papaya



Pineapple

New plants are grown from seeds.

Think and Write

1. List out the fruits that do not have seeds. ----------.
2. Write down the names of the fruit trees that you have never seen, but have tasted their fruits. ----------.

Let us Do

Connect the leaf with its fruit.

1. 
2. 
3. 
4. 









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IV. Plants and their habitat

Plants grow almost everywhere on the Earth i.e. on land (terrestrial plants) and in water (aquatic plants). The plants adapt to their surroundings and hence have special characteristics based on their habitat.

The natural home of a plant is called its habitat. Plants make suitable adjustment with their surroundings to meet their requirements. This is known as adaptation.

Terrestrial or Land Plants

The plants that grow on the land are of different habitats such as deserts, plains, mountains and forests. Let us learn about the adaptation of different land plants.

Plants in Desert

These plants grow in hot, dry and sandy places. Deserts get very less rainfall and experience high temperature. Hence, there is scarcity of water. Let us see how these plants have adapted to this habitat.

- Leaves are changed to spines to reduce the loss of water.
- The stem is green and fleshy. They store water and produce food.
- These plants have a long root that goes deep into the soil.

E .g., Opuntia, Date Palm and Aloe vera.



Opuntia



Date Palm



Aloe vera

Plants on Mountain

These plants grow in cold and freezing places. There is a cool weather in mountain. Let us see how these plants have adapted to this habitat.

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- These trees are conical in shape. This shape allows snow to slide from the trees easily.
- Needle like leaves help them to survive in cold conditions like snow.
- These trees do not shed leaves.
- They have cones instead of flowers. These cones protect the seeds during harsh winter. E.g., Pine tree.


Pine tree

Plants in Plains

- Plants in plains need to adapt to both dry conditions and extreme temperatures.
- They grow in warmer climate and usually shed their leaves in winter to protect themselves from cold.
- They have flat and broad leaves.
- They have thick and woody stem. E.g., Mango, Banyan, Teak.


Mango


Banyan


Teak



Banyan, Peepal and Tamarind trees live more than hundred years.

Plants in Coastal Areas

- They are tall and mostly straight.
- The leaves are called frond.
- The frond look like feathers meant for protection from wind.
- These plants are tolerant to saline (salt) water. E.g., Coconut tree.


Coconut tree

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Let us Connect

Match the plants with their habitat.





Deserts

Mountains

Plains

Coastal areas





Let us Try

A. Select the 'INCORRECT' statement from the following.

1. Desert plants grow in hot, dry and sandy places.
2. Plants in coastal areas are tolerant to saline water.
3. Mountain plants have needle like leaves.
4. Teak is an example of desert plant.

B. Tick (✓) the odd one.

1. Teak	Tamarind	Mango	Opuntia
2. Opuntia	Aloe vera	Pine	Date palm

C. Circle the land habitats.

Forest	Pond	Mountain	River
Tree	Ocean	Desert	Cave

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V. Water Plants

The plants that grow in water bodies like ponds and lakes are called water plants or aquatic plants. They are classified into

1. Free floating plants
2. Fixed rooted plants
3. Submerged plants

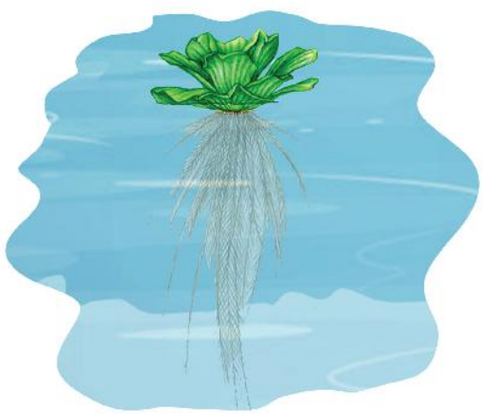
Free Floating Plants

- These are found on the surface of the water.
- They freely float with the help of spongy body filled with air.
- They have poorly developed roots.

E.g., Water hyacinth (Agaya thamarai), Pistia.



Water hyacinth



Pistia

Fixed Rooted Plants

- These plants have roots that are fixed in the bottom of the water bodies.
- These plants have air tubes in their stem to help them float.
- Their leaves are broad and coated with wax to make them water proof.

E.g., Water lily, Lotus.



Water lily



Lotus

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Submerged Plants

- These plants are completely submerged in water.



Hydrilla

- Their stem is thin and leaves are very small.
- There is no opening on the leaf surface.
- They breathe through stem.
  E.g., Vallisneria, Hydrilla.



Vallisneria

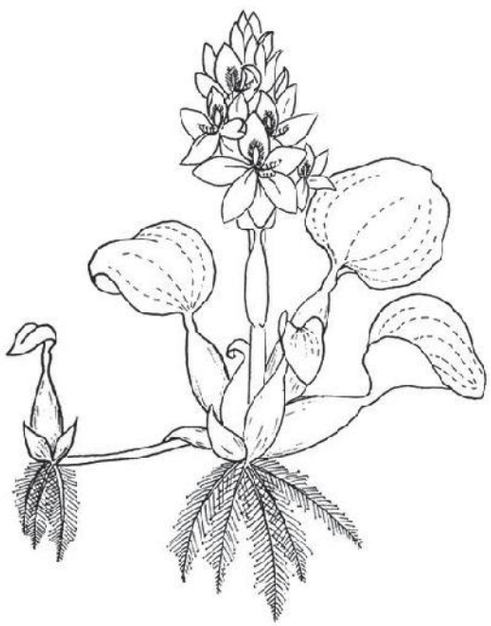
Let us Try

A. Mark 'L" for land plants and 'W' for water plants.

Neem tree	Lotus	Opuntia	Vallisneriya

Water hyacinth	Date palm	Hydrilla	Lily

B. Colour the Water hyacinth plant.



C. Write true or false.

1. Fixed rooted plants are present in water bodies.
2. Leaves of lotus are submerged in the water.
3. Lotus plants are found in many ponds.
4. Water hyacinth freely float with the help of spongy body filled with air.

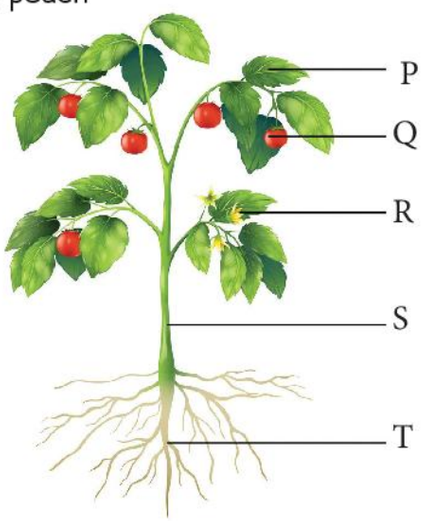
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EVALUATION

17SVJ

I. Choose the correct answer.

1. The function of leaf is to
   (a) Give Support (b) Fix the plant firmly
   (c) Produce food (d) None of the above
2. An example for taproot is _____.
   (a) Paddy (b) Grass (c) Mango (d) Ragi
3. _____ supports the plant.
   (a) Root (b) Leaf (c) Flower (d) Stem
4. Most plants grow from the _____.
   (a) root (b) leaf (c) flower (d) seed
5. Roots are poorly developed in _____.
   (a) agaya thamarai (b) neem (c) teak (d) date palm
6. If part X will be absent in a plant, new plants will not be produced. X is _____.
   (a) stem (b) root (c) flower (d) leaves
7. The adaptations of desert plants are _____.
   (a) fleshy stem (b) needle like roots
   (c) leaves changed to spine (d) both a and c
8. An example of many seeded fruit is _____.
   (a) pomegranate (b) mango (c) apricot (d) peach
9. Which of the following plant parts take part in absorption of water and exchange of gases respectively?
   (a) P and R
   (b) R and S
   (c) S and Q
   (d) T and P



II. Find the odd one.

1. Carrot	Radish	Tomato	Beetroot
2. Cabbage	Greens	Turmeric	Spinach
3. Neem	Aloe vera	Datepalm	Opuntia
4. Coconut	Mango	Apricot	Orange
5. Hydrilla	Opuntia	Water hyacinth	Vallisneria

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III. Give short answers.

1. Name the parts of a plant.
2. Name the types of roots.
3. Write any two functions of the leaves.
4. Write the parts of a flower.
5. Name the types of plants based on their habitat.
6. Write any two adaptations of desert plants.
7. Write the names of some water plants.

IV. Answer the following questions.

1. Write any two functions of each:
   (a) Stem _____ , _____.
   (b) Root _____, _____.
   (c) Flower _____, _____.
2. Why is the leaf called as food factory of the plant?
3. Differentiate between taproot and fibrous root.
4. Give two examples for the following:
   (a) Fruit having only one seed
   (b) Fruit having many seeds
5. Name two free floating plants.
6. Look at the picture of a water lily and answer the following.
   (a) Which parts of the plant can you see?
   (b) Where are the roots and stem of this plant?



V. Project

Collect the information about vegetables that were cooked in your friends houses for the last two days. Fill the table with the particulars.

Sl. No	Name of the friend	Name of the vegetable cooked

From the table, answer the following questions.

(a) In how many houses did they cook leafy vegetables? ----------

(b) Which vegetable is cooked the most? ----------

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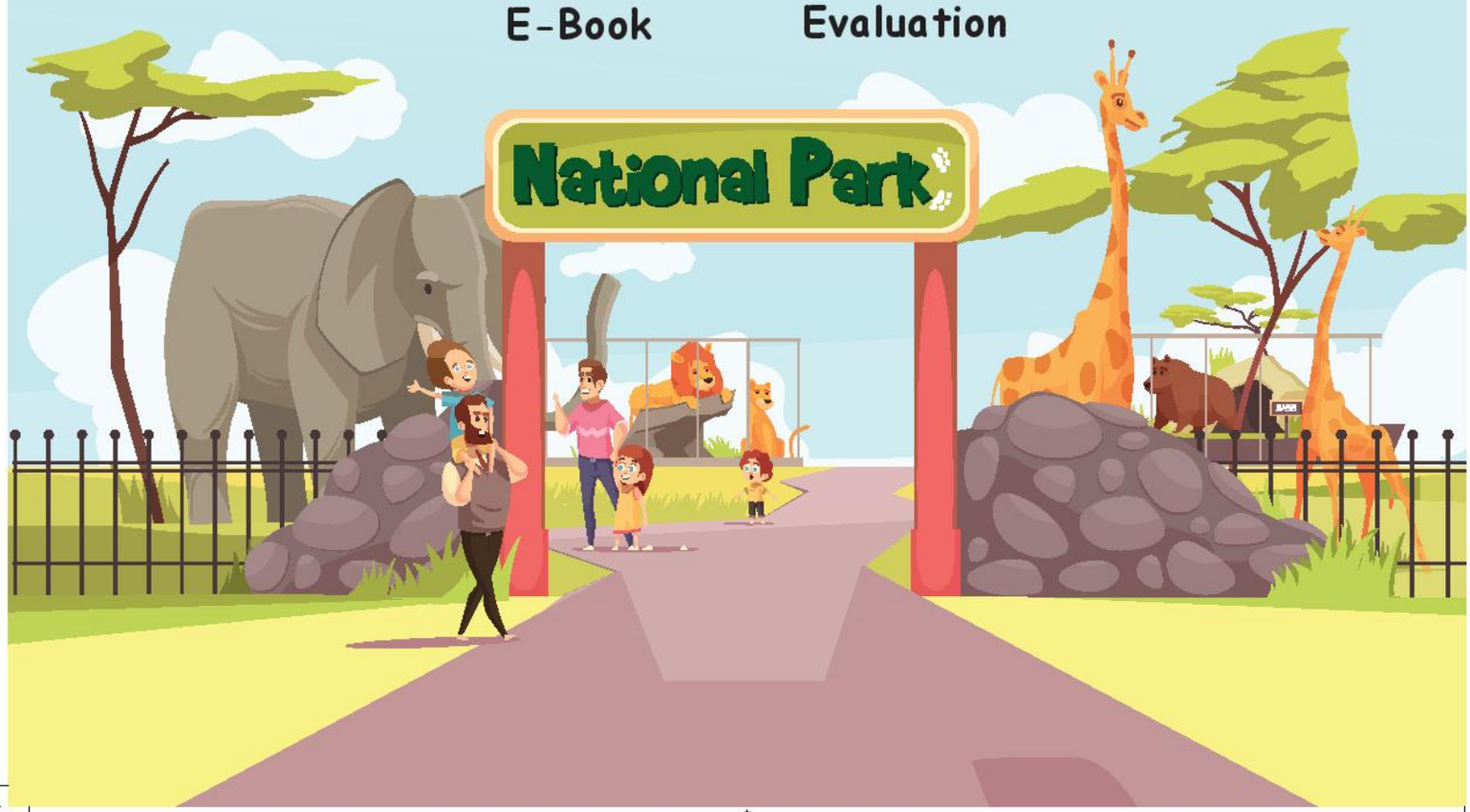
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0K5O4

E-Book

L4HPO

Evaluation







Learning Objectives

Childern will be able to:

- listout the historical places in Tamil Nadu.
- recognise the picture and name the place in Tamil Nadu.
- understand that every historical place h a history (story).



OWVBR

Chandru, a school boy goes to stationery shop to buy picture charts and sketch pens for his project.



Let us see the conversation he had with the shop keeper.



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Chandru: Uncle, do you have sketch pens?

Shopkeeper: Yes.



Chandru looks around the shop and he finds maps and different picture charts.



Chandru: Uncle, what does this chart have?

Shopkeeper: This chart has pictures of historical places in Tamil Nadu.





Chandru: What are historical places?

Shopkeeper: These are the places where buildings, idols and arts were made long ago. The government keeps them safe. So that we can learn about them.



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Chandru points to a picture on the chart.







Chandru: I have gone to Mahabalipuram with my parents. It is near Chennai.

Shopkeeper: Yes. It has four different styles of architectures.





Chandru: Is it? Who built it?

Shopkeeper: Yes. It was built by Pallavas.





Chandru: My mother told me that most of the monuments were made out of just one stone.

Shopkeeper: Yes correct.



MQB42

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Shopkeeper: Do you know? Why the Shore temple is called so?



Chandru: No.



Shopkeeper: The Sea Shore Temple is so named because it overlooks the shore of the Bay of Bengal.



Chandru: Oh! Is it! great.



Temples at Mahabalipuram were built by three generations of the Pallava Kings and it took nearly 200 years to plan and create the site.





ACTIVITY

Let us write

Listout any five places you have visited. Stick the photo of any one place.

_____

_____

_____

_____

_____

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Chandru points to another picture on the chart.







Chandru: Where is fort St. George?

Shopkeeper: It is also in Chennai. It is the first English fort in India.





Chandru: What else are there inside the fort?

Shopkeeper: The fort has a museum and a church. The Secretariat of Tamil Nadu is also inside the fort.





Chandru: I like to go to museums. I am surely going to visit the fort.

Shopkeeper: Yes you should.



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Shopkeeper points to another picture on the chart





Shopkeeper: Look at this picture. Do you know whose statue is this?



AWQ9H



Chandru: Of course. He is Thiruvalluvar who wrote the famous Thirukural.

Shopkeeper: Yes, good.





Chandru: Where is this statue?

Shopkeeper: This is in Kanyakumari.





Chandru: The statue is so tall.

Shopkeeper: Yes, it is 133 feet tall. Does 133 remind you of anything?





Chandru: Thirukural has 133 adhikarams or chapters.

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Shopkeeper: Well done. That statue's height denotes the number of chapters in Thirukural.



Chandru: What is the name of the sea that surrounds the statue?

Shopkeeper: The statue is built on the rock which is surrounded by Arabian Sea, Indian Ocean and Bay of Bengal.



Chandru: Wow! The statue looks majestic.









ACTIVITY

Let us discuss and write







Have you seen the monuments with names and drawings scribbled by people? Do you think is it correct to do this?
Write your views.

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Chandru points to a picture on the chart







Chandru: What is the name of this temple?

Shopkeeper: This is the very famous Thanjavur PeriyaKovil also known as Brihadeeshwara Temple.





Chandru: Who built it?

Shopkeeper: It was built by Raja Raja Cholan. Do you know that the Nandi inside the temple was built using a single stone?





Chandru: Is it?

Shopkeeper: Yes. Another interesting fact about the temple is that the shadow of the tower does not fall on the ground.





Chandru: How wonderful! It is so interesting to see them. I would like to go there.

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Shopkeeper: Yes, you must visit. I have gone there when I was a child and I would like to go there again.



Think



Have you seen the statues carved at monuments or temples?









ACTIVITY

Let us write





Discuss with your friends and write down your favourite tourist places in Tamil Nadu.

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Chandru: The building on the picture chart looks like a fort!

Shopkeeper: Yes, you are correct. This is Gingee fort in Villupuram district.





Chandru: Wow! is it?

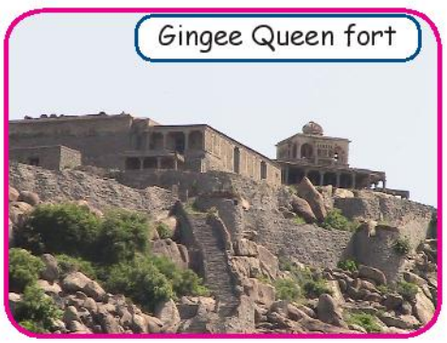
Shopkeeper: Yes, this is one of the oldest forts in Tamil Nadu.





Chandru: I can also see hills. I would like to see the Gingee fort.





Shopkeeper: All of us must visit these places as they have so much history behind and we must take pride in them.



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Shopkeeper: That is nice. Please take Tamil Nadu monument chart and sketch pens.



Chandru: Yes, I will hang it in my house and talk about it to all my friends. Thank you, Uncle!



Glossary

Architecture: The art of making buildings is called Architecture

Monuments: A building, structure or site that is of historical importance.

Museum: Place of exhibition.



Recap

- There is a history (story) behind every monument.
- Monuments in Mahabalipuram were built by Pallavas.
- Fort St. George is the first English fort in India.
- Thiruvalluvar statue is situated in Kanyakumari.
- Thanjavur Periya Kovil was built by Raja Raja Cholan.
- Gingee fort in Villupuram district.

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EVALUATION



I. Choose the correct answer.

1. Sea shore temple is at _____.

   a) Mahabalipuram b) Trichy c) Madurai

2. Fort St. George is at _____.

   a) Kanchipuram b) Chennai c) Trichy

3. There are _____ styles of architectures at Mahabalipuram.

   a) six b) three c) four

4. Thiruvalluvar wrote _____.

   a) Thirukkural b) Nanneri c) Athichudi

5. Nandhi in Thanjavur Periya Kovil was built with _____.

   a) multiple stones b) two stones c) single stone

II. Match the following.

1	Vivekananda rock	-	St. George fort
2	Museum	-	Villupuram
3	Gingee fort	-	Pallavas
4	Mahabalipuram	-	Cholas
5	Periya kovil	-	Kanyakumari

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III. Answer the following.

1. What are inside the fort St. George?
2. Write a short note on Thiruvalluvar statue.
3. Name the three water bodies which are surrounded the Thiruvalluvar statue.
4. Who built Thanjavur Periya kovil? Write any special feature of the temple.
5. Describe the Gingee fort.











FUN WITH ACTIVITY

PROJECT:

Imagine that you are going to a trip to your favorite destination. What are the different things you will pack for the journey?

Name of the place	List of things

3rd Social Science Unit 1 Term II.indd 85 7/8/2022 6:50:57 PM



UNIT 2 Sanctuaries





Learning Objectives

Childern will be able to:

- name different sanctuaries and where they are situated in India.
- define the sanctuaries.
- understand the importance of biosphere reserves.



H3MVGO



A small girl named **Anu** is at home with her **grandfather**. Anu is reading a book and her grandfather is reading a newspaper.



3rd Social Science Unit 2 Term II.indd 86 7/8/2022 7:12:41 PM



Anu: S-A-N-C-T-U-A-R-Y. **Sanctuary**. What does this word mean?





Grandfather: **Sanctuary** is a place where animals and birds are protected from hunting and other human activities.

Anu: Are there any other places like sanctuaries that protects animals and birds?





Grandfather: Yes, Anu. **National Parks** are places where wild animals are protected. In **Biosphere Reserves** animals, birds and plants are protected.

Anu: Interesting.



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BDG05



Grandfather: I will tell you about some of the most popular sanctuaries and biosphere reserves in India.

Anu: Sure. I would love to know about them.





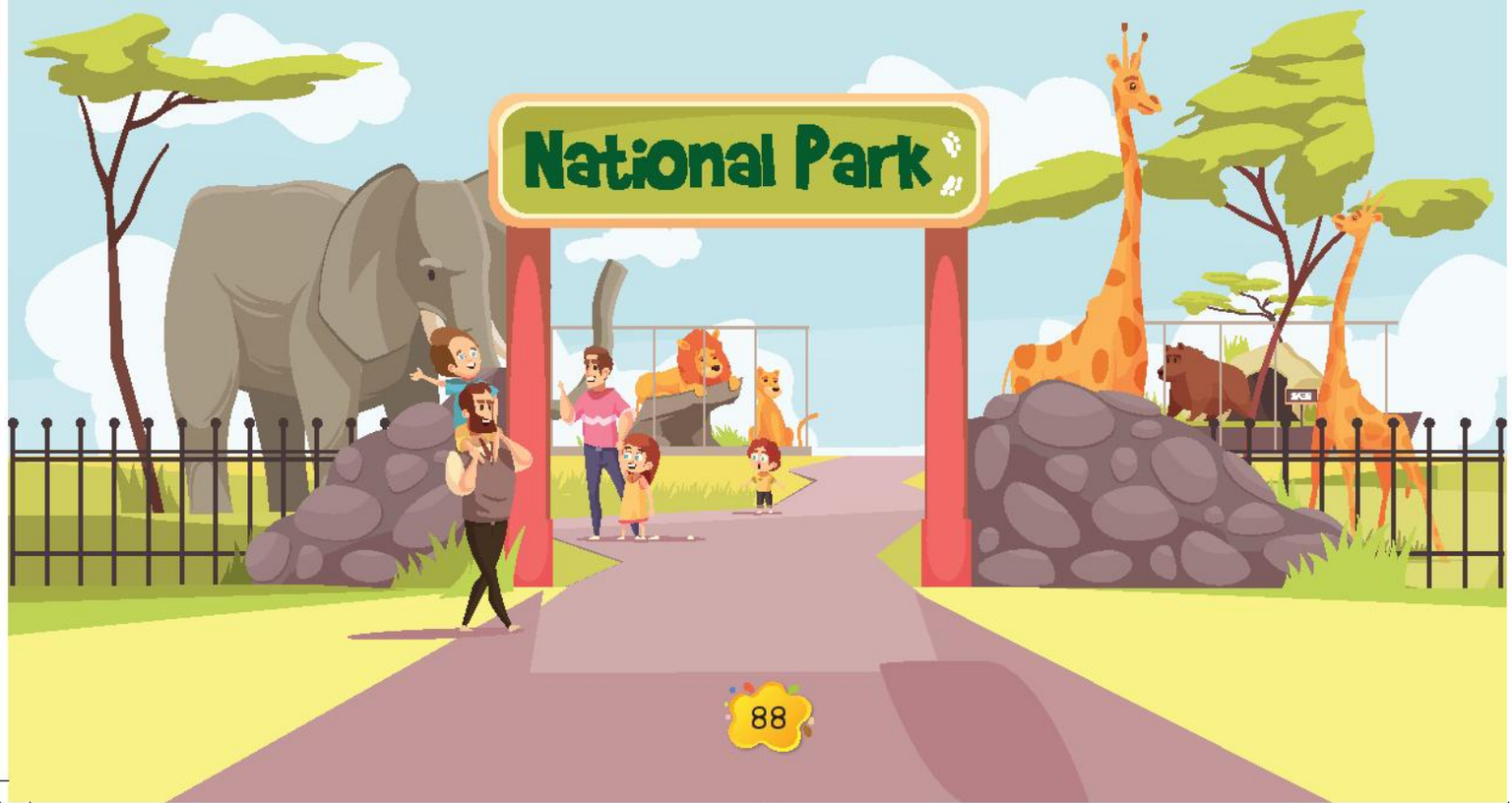
Grandfather: Corbett National Park is the oldest park. It is in Uttarakhand.

Anu: Which animals are protected there?





Grandfather: The majestic Bengal Tigers are protected there.



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Anu: Is there any other sanctuary that protects Bengal Tigers?



Grandfather: Yes, there is. Sunderbans National Park in West Bengal.

BENGAL TIGERS







- Due to the successful conservation efforts of **Project Tiger,** the number of tigers have been increased in India.











ACTIVITY
Let us write

1. Write the differences between the following.

Sanctuary	National park	Biosphere reserve

2. If you want to see the Bengal tigers, which National Park will you visit? Write the name of the park and its location.

3rd Social Science Unit 2 Term II.indd 89 7/8/2022 7:12:43 PM

Think



When International Tiger Day is observed?



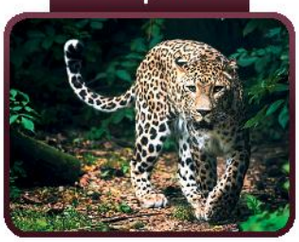
Anu: Grandpa, you know that I love elephants. Is there any sanctuary that protects Elephants?





Grandfather: Yes, **The Nilgiri Biosphere Reserve** not only has elephants but also has Indian leopard, Black panther and Nilgiri tahr.

Leopard



Nilgiri tahr



Black panther



Anu: Grandpa, you said biosphere reserves also protect plants. What kinds of plants can be found here?





Grandfather: There are different species of flowering plants. One among them is Kurinchi flower which blossoms only once in twelve years.

Kurinchi flowers



Anu: It must be so beautiful.



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ACTIVITY
Let us write

Stick pictures of any three animals found in Nilgiri Biosphere Reserve and write the name of the animals below it.

KW4J9

Anu: What about birds?

Grandfather: If you want to see different types of birds, then we must visit **Vedanthangal Bird Sanctuary**.



Anu: Where is it?

Grandfather: It is 25 kms from chengalpattu.

Anu: I am sure that there are some really unique and colourful birds.

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Grandfather: Yes, Anu, birds that migrate from different parts of the world can be found there. You can find pelicans, night herons and many more birds.

LET US KNOW

Migration: When birds or animals move from one region to another due to changes in seasons it is called migration.



Anu: Can we find peacocks there?

Grandfather: No Anu. Peacocks can be found in their natural habitat at **Viralimalai** in **Trichy**.

Anu: I would love to visit this place.

Think



Think and discuss the differences between birds that migrate and birds that do not migrate.

LET US KNOW

Vedanthangal Birds Sanctuary is the oldest water birds sanctuary in India.

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Grandfather: Sure. Do I tell you about the one-horned rhinoceros?

Anu: Are there one-horned rhinoceros?



One-horned rhinoceros







Grandfather: Yes, Anu. Very rare species of rhinoceros are protected in **Kaziranga National Park.**

Anu: Where is it?





Grandfather: It is in **Assam.**



Kaziranga National Park is the home of one-horned rhinoceros. It has around two-thirds of all rhinoceros in the world. Due to the successful conservation efforts, the number of one-horned rhinoceros have been increased .

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ACTIVITY

Let us discuss and write.





Name some of the animals or birds found in the following places.

Viralimalai Sanctaury	Nilgiri Biosphere Reserve	Kaziranga National Park	Corbett National Park



The three Biosphere Reserves in Tamil Nadu are:

- Nilgiri Biosphere Reserve.
- Gulf of Mannar Biosphere Reserve.
- Agasthyamalai Biosphere Reserve.

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Asiatic Lions





Anu: Grandpa, you did not tell me about lions.





Grandfather: Oh yes! **Gir National Park** in **Gujarat** has Asiatic Lions.

Anu: Very interesting.





Grandfather: Animals, birds and different types of plants are important part of our environment.

Anu: Yes Grandpa, we must never harm them. It is our duty to protect them.



3rd Social Science Unit 2 Term II.indd 95 7/8/2022 7:12:52 PM



Glossary

Environment : The natural place where the plant or animal live.

Sanctuary : A place where animals and birds are protected.

Species : A particular type of plant or animal.



Recap

- Sanctuaries or National Parks are places where animals and birds are protected from hunting.
- Biosphere reserves are the places where plants, animals and birds are protected.
- Royal Bengal Tigers can be seen in Corbett National Park, Uttarakhand and Sunderbans National Park, West Bengal.
- The Biosphere Reserves in Tamil Nadu are Nilgiri Biosphere reserve, Gulf of Mannar Biosphere Reserve and Agasthyamalai Biosphere Reserve.
- Kaziranga National Park in Assam is the home of one-horned rhinoceros.

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EVALUATION



I. Choose the correct answer.

1P5HO

1. Corbett National Park is at _____.
   a) Uttarakhand b) Bangaluru c) Chennai

2. The National Park in West Bengal is _____.
   a) Sunderbans National Park b) Gir National Park
   c) Anna National Park

3. _____ sanctuary is at Vedanthangal.
   a) Lions b) Birds c) Tigers

4. There are _____ Biosphere Reserves in Tamil Nadu.
   a) three b) five c) four

5. Gir national Park is in _____.
   a) Gujarat b) Assam c) Hyderabad

II. Match the following.

1	Tiger	-	Nilgiris
2	Lion	-	West Bengal
3	Elephant	-	Assam
4	Birds	-	Gujarat
5	One horned rhinoceros	-	Vedanthangal

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IV. Answer the following.

1. What is sanctuary?
2. What are the animals protected in the Corbett National Park?
3. Name the animals in Nilgiris Biosphere Reserve.
4. Where are one - horned rhinoceros protected?
5. How should we treat animals?











FUN WITH ACTIVITY

PROJECT:

Name the state for the following Sanctaury / National Park / Biosphere Reserve.

1) Vedanthangal Birds Sanctaury
2) Gir National Park
3) Nilgiri Biosphere Reserve
4) Kaziranga National Park
5) Corbett National Park

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UNIT 3 District Administration

Learning Objectives

Childern will be able to:

- understand how a district functions.
- know about different departments working in the district.
- know the responsibility of district collectors.



8IL5J

A small girl named Kaveri and her Father are at home. They are watching news on the television.





3rd Social Science Unit 3 Term II.indd 99 7/9/2022 11:30:15 AM





Father: Kaveri, the **district collector** has given order that the schools will be remain closed from tomorrow till further notice because of heavy rain.



District Collector

Kaveri: Ahaaaaa (Dancing)
No school!
District Collector ....
Who is **district collector** dad?





Father: **District collector** is the Administrative head of a district. District Collector is responsible for proper and smooth functioning of the district.

Kaveri: One person takes care of everything?



3rd Social Science Unit 3 Term II.indd 100 7/9/2022 11:30:16 AM



Father: No Kaveri, there are more subordinates in district administration to assist the district collector like **District Medical officer, Superintendent of police, District Forest officer, Chief Educational Officer, Revenue Divisional Officer (RDO) and other Officers**. These heads take care of their own departments. They all are a part of the district administration system. However, district collector is responsible for proper working of all departments to make sure that people are benefited by the government.

3S6BU





Medical officers are responsible for government hospitals in the district. The person in charge advises on health and sanitation of the district.



3rd Social Science Unit 3 Term II.indd 101 7/9/2022 11:30:17 AM

LET US KNOW

Superintendent of Police: Superintendent is responsible for the police department in the district. Law and order is maintained in the district with the assistance from all police officers like inspectors and sub-inspectors.



Call '**100**' to reach out to police in case of emergency.











ACTIVITY

Let us write

Find the missing letters using the hints.

(Hints)

- Administrative head of the district. C_l_ect_r.
- Maintains law in and order. P_l_c_.
- Advises on health. D_c_ _r.
- Teaches morality. T_ _ch_r.

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Kaveri: Dad, how is a district collector selected?





Father: I.A.S. officers are recruited by **U.P.S.C (Union Public Service Commission).** These I.A.S. officers are appointed as district collectors.



District Educational Office monitors **Educational and Administrative** activities in the district.



The **Tamil Nadu Public Service Commission (TNPSC)** is recruited the State's public service personnel.

3rd Social Science Unit 3 Term II.indd 103 7/9/2022 11:30:18 AM

Kaveri: Dad, can you tell me more about District Collector?





Father: **District Collector** is the head of the revenue department.

- District collector seeks assistance from the police department to maintain law and order in the district. **Superintendent of Police** follows the order of the district collector. They inform district collector time to time about the law and order of the district.
- District collector also supervises local bodies like district board, village panchayat and municipal committees.
- Prompt actions during natural disaster are taken by the district collector.
- District collector has a major role in the development of the goverment.
- District collector makes sure that the policies should reach the people.

Kaveri: Ok dad! I will share all this in my class and learn more details about our district with my friends and teachers.





Glossary

Natural disaster: A natural event that results in huge damage.

Personnel : People working in a particular department.

3rd Social Science Unit 3 Term II.indd 104 7/9/2022 11:30:18 AM

ACTIVITY

Let us write

Write True or False.

- District collector takes actions during natural disaster. ( )
- District collector does not supervise local bodies. ( )
- The Superintendent of police does not make sure that policy reaches the people. ( )
- District collector works along with different department heads for the smooth functioning of the district.( )



Recap

- District collector is the Administrative head of the district.
- District collector is responsible for the proper and smooth functioning of the district.
- District administration system is constituted of different department of the district such as police department, medical department, forest department, and educational department.
- District collector seeks assistance from the police department to maintain law and order in the district.
- Prompt actions during natural disaster are taken by the district collector.

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EVALUATION



I. Choose the correct answer.

1. _____ administrative head of the district.

   a) District collector b) Judge
   c) Superintendent of Police

2. _____ are responsible for government hospitals.

   a) Policemen b) Medical Officer c) Drivers

3. _____ is maintained by the police department.

   a) Health b) Forest c) Law and order

4. _____ ensures the proper functioning of educational department in a district.

   a) Forest Officer b) Chief Educational officer
   c) Medical Officer

5. _____ advises on sanitation of the district.

   a) Medical Officer b) Forest Officer c) Revenue Officer

II. True or False.

1. District collectors are appointed through exams conducted by U.P.S.C. ( )
2. Teacher monitors the welfare schemes to reach the people. ( )
3. Chief Educational Officer takes care of the education department. ( )
4. Police officers are responsible for the government hospitals. ( )
5. Forest officer takes care of the forest department.( )

3rd Social Science Unit 3 Term II.indd 106 7/9/2022 11:30:19 AM

III. Answer the following.

1. Who is the Administrative head of the district?
2. How are the District Collectors selected?
3. Name any three departments of the district.
4. Who maintains law and order in the district?
5. Write about the Medical Officer.









FUN WITH ACTIVITY

PROJECT:



Name some of the departments functioning in your District.

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Class III - Mathematics, Science and Social Science (Term II, Volume 2)
List of Authors and Reviewers

Academic Advisor
Dr. P. Kumar
Joint Director (Syllabus),
SCERT, Chennai.

Academic Co-ordinator
Dr. K.S. Mozhiyarasi
Principal, DIET,
Keelapalur, Ariyalur

Subject Co-ordinator
Maths
K.Revathi
Lecturer, DIET,
Perambalur

N.V. Poornima Devi,
B.T Asst, G.H.S.School,
Palayanur, Tiruvannamalai.

Science
T. Ashok
PG Asst., G.B.H.School,
Ponneri, Thiruvallur.

Social Science
S. Maheswari
P.G. Asst., G.G.H.School,
Villupuram.

Layout Design and Illustration Team
Artist
Johnsmith,
A. Adison Raj
Prasanth C, Yesu Rathinam
Sagaya Arasu,
Santhiyavu Stephen,
Porsellvan,
Adaikkala stephen S
Yuvaraj Ravi

Udhaya Info
Chromepet, Chennai

In-House QC
Rajesh Thangappan
Jerald Wilson C

Wrapper Design
Kathir Arumugam

Coordination
Ramesh Munisamy

Mathematics
Reviewers
Dr. Ramanujam
Professor,
Institute of Mathematical Science, Tharamani,
Chennai.

R. Krithika
Research Centre,
Azim Premji University,
Bangalore

Authors
R.Selvapradha,
Isha Vidhya Ramaniyam
Matric Hr. sec. school,
Vanavasi, Mettur, Salem.

K.Brindha,
Isha Vidhya Ramaniyam
Matric Hr. sec. school,
Vanavasi, Mettur, Salem.

P. Kalpana
B.T. Assistant, PUMS,
Alambakkam,
Pullambadi Union,
Tiruchirappalli.

C .Venkatesan, S.G. Asst,
Govt. A. D. W. Primary School, Vandarayankattalai,
Ariyalur.

K. Pushparaj
B.T. Assistant, P.U.M.School
Narasingampalayam,
Ariyalur.

S.K .Sivakumar
B.T. Assistant,
P.U.M.School, Edaiyar,
Ariyalur.

C .Thottiyathan
S.G. Asst, P.U.P.School,
Namankunam, Ariyalur.

P. Malarvizhi
BT Asst., P.U.M.School,
Padiyanallur Thiruvallur.

Science
Reviewers
Angeline Ruby
Asst. Professor, SCERT,
Chennai.

Dr. K. Chinthanaiyalan
B.T. Asst., GHS,
Periyar nager,
Nandambakkam,
Kanchipuram.

Authors
Srivathsan Ramasamy
Madhi Foundation,
Chennai.

N. Gopi
BRTE, Nemili Block,
Vellore.

K.Vijayaraj kumar
PGT, Isha vidhaya Infosys
MHSS, Samichettipatti,
Dharmapuri

S. John James
PGT, Isha vidhaya MHSS,
Madavapallam, Cuddalore

M. Mariyadoss
H.M., P.U.M.School,
Palinganatham,
Thirumanoor, Ariyalur.

K. Ganesan,
B.T. Assistant,
P.U.M.School, Vellai
Pichampatti, Trichy.

K. Nirmala Mary,
SGT, P.U.P.School, Aaroor,
Sankarapuram, Villupuram.

Artist
P. Ramer
Drawing Master, GBHSS,
Kamaraj Nagar, Avadi,
Tiruvallur

Social Science
Reviewers
K. Velu, B.T Asst,
G.G.H.S.School,
Thalaivasal, Selam.

Srivathsan Ramasamy
Madhi Foundation,
Chennai.

Authors
S. Gomathi Manickam
B. T Asst, G.H.S.School,
Old Perungalathur,
Kanchipuram.

S. Maheswari
P.G. Asst., G.G.H.S.School,
Villupuram.

S. Abirami, SGT,
P.U.M.School,
T palur, Ariyalur.

EMIS Technology Team
R.M. Satheesh
State Coordinator
Technical,
TN EMIS, Samagra
Shiksha.

K.P. Sathya Narayana
IT Consultant,
TN EMIS, Samagra Shikaha

R. Arun Maruthi Selvan
Technical Project
Consultant,
TN EMIS, Samagra Shiksha

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