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</tbody>
</table>
MATHEMATICS

STANDARD THREE

TERM III
Reading the time

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 long and the other is short.

- The long hand is the minute hand. It shows minutes.
- The short hand is the hour hand. It shows hours.

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

- The short hand of the clock is at 3.
- The long hand of the clock is at 12.

So the time is 3 o'clock.
We write it as 3 : 00

After 1 hour

In this clock, the hour hand is at 4.
- The minute hand is at 12.
- So, the time is 4 o'clock.

Note to the teacher

Give practice to the children with a model clock.
1) Tick the correct clock.

<table>
<thead>
<tr>
<th>After 1 hour</th>
<th>After 2 hours</th>
<th>After 3 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Clock" /></td>
<td><img src="image2.png" alt="Clock" /></td>
<td><img src="image3.png" alt="Clock" /></td>
</tr>
<tr>
<td><img src="image4.png" alt="Clock" /></td>
<td><img src="image5.png" alt="Clock" /></td>
<td><img src="image6.png" alt="Clock" /></td>
</tr>
<tr>
<td><img src="image7.png" alt="Clock" /></td>
<td><img src="image8.png" alt="Clock" /></td>
<td><img src="image9.png" alt="Clock" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Before 2 hours</th>
<th>Before 1 hour</th>
<th>Before 3 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image10.png" alt="Clock" /></td>
<td><img src="image11.png" alt="Clock" /></td>
<td><img src="image12.png" alt="Clock" /></td>
</tr>
<tr>
<td><img src="image13.png" alt="Clock" /></td>
<td><img src="image14.png" alt="Clock" /></td>
<td><img src="image15.png" alt="Clock" /></td>
</tr>
<tr>
<td><img src="image16.png" alt="Clock" /></td>
<td><img src="image17.png" alt="Clock" /></td>
<td><img src="image18.png" alt="Clock" /></td>
</tr>
</tbody>
</table>
2) Tell the time and write your answer in the box.

3) Draw the hands in the following clocks for the given time.
Reading the minute

Look at the movement of the hands in a working clock.

The minute hand is much faster than the hour hand.

The minute hand crosses every small mark in the clock.

There are 60 such small marks and each one is called a minute.

The minute hand takes 5 minutes to go from one number to the next. The hour hand takes 60 minutes to go from one number to the next.

1 hour = 60 minutes

Example

Look at the pictures.

What do you observe? The long hand is at 1. The time is 9 o’clock. So the time is 9 : 05

Exercise 2

1) Count in steps of five minutes and write the time:

9 : 10
2) Tell the time in the clock and write your answer in the box:

3) Draw the hands in the clock to show the time as given below:
Observe the following.

Digital clock

What do you observe?

In digital clock there is no minute hand and hour hand.

I show hours

I show minutes

1) Mark the time in digital clock.
2) Draw the hands of these clocks to show the time given in the digital clocks.

![Clocks and Hands Diagram]

**Knowledge Bank**

**Do you know?**

1 day = 24 hours

12 hours

- 12 midnight to 12 noon
- 12 noon to 12 midnight

Time between 12 midnight and 12 noon is denoted by a.m.

Time between 12 noon and 12 midnight is denoted by p.m.

It is neither a.m. nor p.m. at 12 midnight and at 12 noon.
1) Write a.m. or p.m. suitably to the events given below.

1. Breakfast at 7:45
   - 7:45 a.m.

2. Lunch break at school at 12:15

3. Karate class in the school at 3:30

4. Morning prayer in the school at 8:30

5. School gets over at 4:00

6. The Sun rises at 5:00

7. The Sun sets at 6:00

8. Night 11:35

9. Night 2:30

10. Afternoon 1:30
2) Write the time with a.m. or p.m. for your daily activities.

- Wake up at
- Brushing the teeth at
- Breakfast at
- Going to school at
- Lunch break at
- Playing at
- Watching TV at
- Dinner at
- Doing homework at
- Retiring to bed at

Collect the pictures of different types of clocks and watches.
I. Fill in the blanks:

1) A year has __________ days.
2) In a week there are __________ days.
3) __________ is the first day of the week.
4) Twelve months are __________ year.
5) First month of the year is __________

II. Join the dots in the order of the months and colour the picture.

1 year = 12 months
1 Week = 7 Days
1 Month = 30 Days
1 Year = 365 Days
Reading the calendar

A calendar shows the days, weeks and months of a particular year. The days from 1<sup>st</sup> January to 31<sup>st</sup> December of a year is called a calendar year.

There are two types of calendar.
Read the calendar and fill in the blanks.

1. [ ] months have 31 days.
2. [ ] months have 30 days.
3. November has [ ] days.
4. There are [ ] weeks in the month of February.
5. [ ] is the last month of the year.
6. [ ] is the sixth month of the year.
7. In the month of [ ] you get your summer holidays.
8. The month of August has [ ] days.
9. [ ] comes between June and August.
10. The month which starts with the letter F is [ ].

Picture of hand. (The Knuckle rick)

It is an easy way to remember the days in every month.
ACTIVITY 3

Look at the picture and fill in the boxes

1. January → [31 days]
2. February
3. March
4. April
5. May
6. June
7. July
8. August
9. September
10. October
11. November
12. December

Leap year:

February 2012 has 29 days,
February 2013 has 28 days.

Because 2012 is the leap year.
A leap year comes once in four years. In a leap year, February has 29 days.
Look at the above calendar and fill in the boxes:

1. Number of days in January 2014 is

2. The number of Sundays

3. The number of holidays

4. January 14\textsuperscript{th} is on

5. Republic Day is on

6. On which day does the year begin

Look at the calendar 2013 and fill in the boxes.

1. Teachers’ Day is on

2. Independence Day is on
3. Republic Day is on
   
4. Gandhi Jayanthi is on
   
5. Children’s Day is on
   
6. Education Development Day is on

Reading the date

What is Gandhiji’s date of birth?

2\textsuperscript{nd} October 1869.

Date of birth is written as :

<table>
<thead>
<tr>
<th>Date</th>
<th>Month</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>02</td>
<td>10</td>
<td>1869</td>
</tr>
</tbody>
</table>

Chronological order

Recording events in the order of happenings is called the “chronological order”

Look at the date of birth of the following leaders from a calendar and tabulate them in the chronological order.

Kamarajar, Gandhiji, Arignar Anna, Dr. Ambedkar, Jawaharlal Nehru
1. In a year, there are __________ months.

2. In a leap year, February has ________ days.

3. 2013 is not a ________ year.

4. The short hand in a clock is ________ hand.

5. Write down the time.

6. Draw the hands.

7. Write down a.m. or p.m.

   Sachin plays cricket in the evening at 4.00 _____

   The Sun rises at 5.30 _____ in the morning.

8. Write your date of birth:

<table>
<thead>
<tr>
<th>DD</th>
<th>MM</th>
<th>YYYY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. Leap year comes once in ________ years.
Money is a medium of exchange. We use money for buying goods. In India, the unit of money is rupee.

We express the Indian money in terms of rupees and paise.

We use ‘p’ to write paise, ‘Re’ to write rupee and ‘Rs’ to write rupees. Also we use a dot (•) to separate rupees and paise.

Example

We express Rupees sixty and fifty paise in figure as Rs. 60.50

Our Indian government has introduced the symbol for denoting rupees as ₹. So Rs. 60.50 is written as ₹ 60.50
Denomination of rupees:

Denomination of coins:
1. Match the following :

<table>
<thead>
<tr>
<th>₹ 250</th>
<th>₹ 650</th>
<th>₹ 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image 1" /></td>
<td><img src="image2.png" alt="Image 2" /></td>
<td><img src="image3.png" alt="Image 3" /></td>
</tr>
</tbody>
</table>

**Relationship between rupee and paisa**

100 paisa = 1 rupee

**We can make one rupee by using different coins**

![Diagram](image4.png)

**Note to the teacher**

Tell the fact that,
- Coins of 1 paisa, 2 paisa, 5 paisa, 10 paisa, 20 paisa are not in circulation.
- Notes of Re. 1 and Rs. 2 are not in circulation
Do you know how we read and write Rupees and Paise?

Here we have 20 Rupees and 50 Paise. We read it as Rupees 20 and 50 Paise. We write this as Rs. 20.50 or ₹ 20.50

2. Fill in the boxes:

<table>
<thead>
<tr>
<th>€  50. 25</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
3. Look at the picture:

Tick the correct denomination of the prices of the objects:

<table>
<thead>
<tr>
<th>Item</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ball</td>
<td>🥑️ ₹ 400 🥑️</td>
</tr>
<tr>
<td>Book</td>
<td>🥑️ ₹ 30 🥑️</td>
</tr>
<tr>
<td>Pencil box</td>
<td>🥑️ ₹ 150 🥑️</td>
</tr>
<tr>
<td>Bag</td>
<td>🥑️ ₹ 600 🥑️</td>
</tr>
<tr>
<td>Shoes</td>
<td>🥑️ ₹ 700 🥑️</td>
</tr>
<tr>
<td>Shirt</td>
<td>🥑️ ₹ 120 🥑️</td>
</tr>
<tr>
<td>Pant</td>
<td>🥑️ ₹ 800 🥑️</td>
</tr>
<tr>
<td>Torch</td>
<td>🥑️ ₹ 90 🥑️</td>
</tr>
<tr>
<td>Teddy bear</td>
<td>🥑️ ₹ 280 🥑️</td>
</tr>
<tr>
<td>Bat</td>
<td>🥑️ ₹ 320 🥑️</td>
</tr>
</tbody>
</table>
Addition and Subtraction in money

Addition and subtraction of money is done as in addition and subtraction of numbers.

The only difference is we add rupees and coins separately.

Yes! we subtract rupees and coins separately.

### Example

Add ₹ 60.50 and ₹ 70.00.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>₹</td>
<td>60 . 50</td>
<td></td>
</tr>
<tr>
<td>+</td>
<td></td>
<td>70 . 00</td>
</tr>
<tr>
<td>₹</td>
<td></td>
<td>130 . 50</td>
</tr>
</tbody>
</table>

Write rupees and paisa in two columns.
Add paisa and write the sum under paisa.
Add rupees and write the sum under rupees.

Subtract rupees 20 from rupees 40 and 50 paisa.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>₹</td>
<td>40 . 50</td>
<td></td>
</tr>
<tr>
<td>-</td>
<td></td>
<td>20 . 00</td>
</tr>
<tr>
<td>₹</td>
<td></td>
<td>20 . 50</td>
</tr>
</tbody>
</table>

Write rupees and paisa in two columns.
Subtract paisa and write the answer under paisa.
Subtract rupees and write the answer under rupees.
1) Addition

\[
\begin{array}{ccc}
\text{Cost of jam bottle} & = & \text{\₹ 40.50} \\
\text{Cost of a loaf of bread} & = & + \text{\₹ 20.25} \\
\text{Total amount spent} & = & \text{\₹ 60.75}
\end{array}
\]

2) Subtraction

\[
\begin{array}{ccc}
\text{Total amount} & = & \text{\₹ 50.50} \\
\text{Amount spent} & = & - \text{\₹ 20.25} \\
\text{Amount remaining} & = & \text{\₹ 30.25}
\end{array}
\]
Exercise 3

How much money I have to pay to buy these toys?

I have ₹ 500 now. How much money I have after buying the bat and the ball?

How much money I have to pay to the shopkeeper after getting the biscuits and chocolate?
I have ₹ 30.75. Will I have any balance after I buy a pen and a sharpener?

Project

Set up a mock shop in your class.

Bills and Rate charts

Bills help us to know the items of purchase, its prices, total amount paid, date of purchase, bill number and name of the shop.
Ram went to the bookshop and bought the following items. The following bill shows the rate of the articles and the total amount he paid.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Particulars</th>
<th>Quantity</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Ballpoint pen</td>
<td>10</td>
<td>5.00</td>
<td>50.00</td>
</tr>
<tr>
<td>2.</td>
<td>Notebook</td>
<td>10</td>
<td>10.00</td>
<td>100.00</td>
</tr>
<tr>
<td>3.</td>
<td>Sketch pen set</td>
<td>6</td>
<td>15.00</td>
<td>90.00</td>
</tr>
<tr>
<td>4.</td>
<td>Crayons</td>
<td>2</td>
<td>20.00</td>
<td>40.00</td>
</tr>
<tr>
<td>5.</td>
<td>Marker</td>
<td>4</td>
<td>15.00</td>
<td>60.00</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>340.00</strong></td>
</tr>
</tbody>
</table>

Using the above bill fill in the blanks:

1. Name of the shop
2. Bill number
3. Date of the bill
4. Total number of items purchased
5. Total amount of money paid
6. Rate of one marker pen
7. Cost of two crayons
8. Rate of one sketch pen set
9. Rate of one ballpoint pen
10. Cost of ten notebooks
Exercise 4

The following items are purchased from the supermarket. Find out the total amount to be paid.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Items</th>
<th>Quantity</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Jam bottle</td>
<td>2</td>
<td>30.00</td>
<td>60.00</td>
</tr>
<tr>
<td>2.</td>
<td>Honey bottle</td>
<td>3</td>
<td>15.00</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Ghee packet</td>
<td>1</td>
<td>70.00</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Cool drinks</td>
<td>2</td>
<td>40.00</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Chocolate</td>
<td>4</td>
<td>6.00</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Prepare a rate chart for the above bills.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Particulars</th>
<th>Quantity</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Project

Ask the students to collect different types of bills, group-wise and ask them to prepare an album.
Here is a watermelon. It has been cut into two parts. Look at these two parts. Are these two parts equal? No, the two parts of the watermelon are unequal.

Here is another watermelon. It has been cut into two parts. Observe these two parts. Are these two parts equal? Yes, the two parts of the watermelon are equal.

One Half

What do you observe from the above figures. In each figure, there are two equal parts. One of them is shaded. Each part is called one half.

It is written as $\frac{1}{2}$ and read as ‘one half’.
Shade one half of each figure:

Example

(a)  
(b)  
(c)  
(d)  

One quarter

What do you see in the following figures?

In each figure, there are four equal parts. One of them is shaded. The shaded portion is called one quarter.

It is written as $\frac{1}{4}$ and read as ‘one-fourth’
Shade one-fourth of each figure.

Example

In each figure, there are four equal parts. Three among them are shaded. So, the shaded portion represents three fourth. It is written as $\frac{3}{4}$ and read as three-fourth.

$\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$ are fractional numbers.
Shade three-fourth of each figures.

Example

Consider the following example.
There are four kites.
Three are red kites.
So three fourth of the kites are red.
Then one fourth of the kites are green.
Shade each collection as given below:

Example

Shade one-fourth

(a) Two-fourth
(b) One-half
(c) Three-fourth

Exercise 4

(a) Write the fraction which represents the shaded portion.

Example

\[ \frac{1}{2} \]

(a) (b) (c) (d)

Exercise 5
(b) Circle the correct fraction.

Example

\[
\begin{array}{ccc}
\frac{2}{4} & \frac{1}{4} & \frac{3}{4} \\
\frac{1}{4} & \frac{2}{4} & \frac{3}{4} \\
\frac{1}{4} & \frac{2}{4} & \frac{3}{4}
\end{array}
\]

(c) Write the fraction for the shaded object in each collection.

Example

\[
\begin{array}{c}
\frac{3}{4}
\end{array}
\]

of the pencils are blue.

of the caps are green.
b) of the combs are black.

c) of the cars are red.

(d) Colour one half of each collection.

(a)  

(b)

(e) Colour one-fourth of each collection.

(a)  

(b)
(f) Colour three-fourth of each collection.

\[ \text{a)} \quad \quad \text{b)} \]

\[ \begin{align*}
\text{a)} & \quad \text{b)} \\
\begin{array}{c}
\text{Soocer Balls} \\
\text{Books}
\end{array}
\end{align*} \]

**ACTIVITY 1**

- Take a sheet of paper and cut it round as shown.
- Fold it and form two halves.
- Again fold it and form two halves as shown.
- Unfold the sheet.

Look at the four quarters in the sheets.

Find out the fractions \( \frac{1}{2}, \frac{1}{4}, \frac{3}{4} \) in the sheet.
The numbers $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{3}{4}$ are fractional numbers.

Fractional Number

<table>
<thead>
<tr>
<th>Fractions</th>
<th>Numerator</th>
<th>Denominator</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\frac{1}{2}$</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>$\frac{1}{4}$</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>$\frac{3}{4}$</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

In Figure (1), a circle is divided into two equal parts and one is coloured. The fraction of coloured portion is $\frac{1}{2}$. 
In Figure (2), the circle is divided into four equal parts and two are coloured.

The fraction of the coloured portion is \( \frac{2}{4} \).

Can you see the coloured portion of two circles is the same?

So, \( \frac{1}{2} \) and \( \frac{2}{4} \) are equivalent fractions.

Look at the figures given below

In Figure (1) a circle is divided into 2 equal parts and both are coloured. The fraction of the coloured portion is \( \frac{2}{2} \).

In Figure (2) the circle is divided into 3 equal parts and 3 are coloured. The fraction of the coloured portion is \( \frac{3}{3} \).

In Figure (3) the circle is divided into 4 equal parts and all are coloured. The fraction of the coloured portion is \( \frac{4}{4} \).

What do you observe from the above circles?

Coloured portions of the circles are the same.

\( \frac{2}{2}, \frac{3}{3} \) and \( \frac{4}{4} \) are also called equivalent fractions.
In everyday life, we see many patterns.

“When objects, events and numbers are repeated uniformly in a specific way, a pattern is formed.”

Example
Pattern in geometrical shapes

There are two types of patterns. They are

Growing patterns

Repeated patterns

Growing patterns.

If some patterns and designs grow with straight lines and geometrical shapes, they are called **growing patterns**.
Continue the pattern:

1. \[\text{△ △ △ △ △} \]
2. \[\uparrow \downarrow \uparrow \uparrow \downarrow \downarrow \]
3. \[\text{LLLL} \]
Repeated Patterns

If some patterns and designs repeat with straight lines and geometrical shapes they are called **repeated patterns**.

**Example**

Continue the pattern:

1. 
   ![Pattern 1](image1)

2. 
   ![Pattern 2](image2)

3. 
   ![Pattern 3](image3)

**Exercise 2**
Make your own patterns by using:

(i) leaves,
(ii) flowers.
(iii) colour buttons.
(iv) bindhis, stickers, jamkkies in paper plate

Pattern in numbers

We have made some patterns with pictures. We can make patterns with numbers too.

5, 10, 15, 20, ...
10, 20, 30, 40, ...
20, 40, 60, 80, 100, ...

In numbers also there are two types of patterns.
They are:
- Growing patterns
- Repeated patterns
Growing patterns:

If some number patterns grow with odd and even numbers, they are called **growing patterns**

**Example**

1, 3, 5, 7, ...
10, 20, 30, ...
17, 19, 21, ...

Repeated patterns:

If some number patterns repeat with odd and even numbers, they are called **repeated patterns**

**Example**

744, 744, 744, ........
1,5,6,1,5,6,1,5,6, ........
101, 102, 101, ........

**Exercise 3**

Complete the following patterns:

a) 2, 4, 6, 2, 4, ____ , ____ , ____
b) 1, 3, 6, 10, ____ , ____ , ____  
c) 1, 3, 7, 13, ____ , ____ , ____
d) 15, 25, 35, 15, ____ , ____ , ____
e) 111, 222, 333, ____ , ____ , ____
f) 10, 20, 30, 10, ____ , ____ , ____
a) Complete the patterns:

1. 

2. 

3. 

b) Match the following and complete the pattern:

<table>
<thead>
<tr>
<th>Square</th>
<th>Circle</th>
<th>Triangle</th>
<th>Rectangle</th>
<th>Cross</th>
<th>Star</th>
<th>Oval</th>
<th>Hexagon</th>
<th>Trapezoid</th>
<th>Rhombus</th>
</tr>
</thead>
<tbody>
<tr>
<td>🟢</td>
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</tr>
</tbody>
</table>
c) Observe the pattern and complete the series:

a) 3, 6, 9, 12, 15,

b) 4, 8, 12, 16, 20,

c) 395, 390, 385, 380, 375,

d) 120, 130, 140, 150,

e) 11, 22, 33, 44, 55, 11,

d) Complete the following:

2 Flowers 4 Flowers 7 Flowers _____Flowers

3 Balloons 5 Balloons 7 Balloons _____Balloons

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Step 1: Take a sheet of paper and fold it.

Step 2: Draw any shape at the folded edge of the sheet.

Step 3: Cut the shape.

Step 4: Unfold it.

Note that one half of the shape is exactly like the other half. The line which divides the figure into two exact halves is called the ‘line of symmetry’.

Try it!

In symmetrical shapes, one half is the mirror image of the other.
Take a piece of paper.
Spill few drops of ink on the paper.
Now fold the paper and press it.
You will get a symmetric figure.

Example

Look at the following symmetrical letters. Observe the symmetrical lines in the letters.

How to divide the figure into two equal parts?
Make the students to create symmetrical patterns as given in the examples and display them in the class.

1) Colour the symmetrical figures:
2) Draw the lines of symmetry for the following figures:

1)  
2)  
3)  
4)  
5)  
6)  

3) Draw the other half of the figure to make it symmetrical:

1)  
2)  
3)  
4)  
5)  
6)  

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4) Classify whether the following are symmetrical patterns or not by putting ✓ or ✗ in the box.

Example
Look at the above picture and fill in the required data:

1) Number of buildings

2) Number of birds

3) Number of lotus

4) Number of trees

5) Number of ducks

6) Number of fish

Activity 1

Try to collect data for the following questions from your school.

1) Number of classrooms

2) Number of teachers

3) Number of male teachers

4) Number of female teachers

5) Number of trees, bikes, bicycles, toilets, taps.

6) Number of students in standards I, II, III, IV and V.
Data gives us information! Collection of information helps us to know many facts!

Questionnaire is one of the methods to collect information

Questions are framed to get the information we need

**Questionnaire model:**

<table>
<thead>
<tr>
<th>Name of the head of the family</th>
<th>Number of persons in the family</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adult                Children</td>
</tr>
<tr>
<td>Number of literates</td>
<td>Number of children studying in</td>
</tr>
<tr>
<td></td>
<td>School               College</td>
</tr>
<tr>
<td>Occupation of the head of the family</td>
<td>Total income of the family</td>
</tr>
<tr>
<td></td>
<td>Mother tongue of the student</td>
</tr>
</tbody>
</table>

“A survey is a method of collecting information through data gathering, interview and questionnaire”
The following table shows the hours spent by friends in the playground during summer holidays.

<table>
<thead>
<tr>
<th>NAME</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balu</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>...............</td>
</tr>
<tr>
<td>Raja</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>...............</td>
</tr>
<tr>
<td>Malar</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>...............</td>
</tr>
<tr>
<td>Varun</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>...............</td>
</tr>
<tr>
<td>Sandhya</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>...............</td>
</tr>
</tbody>
</table>

1. Who spent maximum time in the playground?
   - Sandhya

2. Who spent minimum time in the playground?
   - Varun

3. Who spent maximum time in the playground on Thursday?
   - Raja

4. How many hours did Sandya spend in the playground on Monday?
   - 3 hours
Ask your classmates about their favourite subjects and record them in the table. (Group work).

<table>
<thead>
<tr>
<th>Sl.no</th>
<th>Subjects</th>
<th>No.of.students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Tamil</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>English</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Maths</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Science</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Social science</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Drawing</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Music</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Sports</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Computer Science</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>General Knowledge</td>
<td></td>
</tr>
</tbody>
</table>

Subject is liked by the most.

**Tally marks**

Before the invention of numbers, ancient people used fingers, knots and tally marks for counting. ‘I’ is called “tally mark”. To make it easier to count, after 4 tally marks the fifth tally mark is entered as \[\text{I} I I I I\]
The following statement shows the marks scored by III standard students in Mathematics.

<table>
<thead>
<tr>
<th>Marks</th>
<th>Tally Marks</th>
<th>No. of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>☐☒☒☒</td>
<td>7</td>
</tr>
<tr>
<td>43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>53</td>
<td></td>
<td></td>
</tr>
<tr>
<td>58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The physical education master in a school recorded the height of the 20 students (in cm). The following statement shows the details.

<table>
<thead>
<tr>
<th>Height (cm)</th>
<th>Tally marks</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>110</td>
<td></td>
<td></td>
</tr>
<tr>
<td>118</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Prepare a table with tally marks for the above data:

Symbols and pictures can be used to represent data. This helps us to study and understand data easily. This kind of representation is called “PICTOGRAPH”.

56
The following pictograph shows the sale of toys in a shop:

<table>
<thead>
<tr>
<th>Toy</th>
<th>Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAR</td>
<td><img src="image" alt="CAR" /></td>
</tr>
<tr>
<td>VAN</td>
<td><img src="image" alt="VAN" /></td>
</tr>
<tr>
<td>BUS</td>
<td><img src="image" alt="BUS" /></td>
</tr>
<tr>
<td>BALL</td>
<td><img src="image" alt="BALL" /></td>
</tr>
<tr>
<td>DOLL</td>
<td><img src="image" alt="DOLL" /></td>
</tr>
</tbody>
</table>

Look at the above pictograph and fill in the required data in the following boxes:

a) The total number of toys sold
b) The total number of balls sold
   6
c) Name the toy which are sold least in number
d) Name the toy which are sold most in number
e) The total number of buses sold
The following pictograph represents the number of apples sold at a shop in a week.

|= 10 Apples

<table>
<thead>
<tr>
<th>Day</th>
<th>Apples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td><img src="image1.png" alt="Image" /></td>
</tr>
<tr>
<td>Tuesday</td>
<td><img src="image2.png" alt="Image" /></td>
</tr>
<tr>
<td>Wednesday</td>
<td><img src="image3.png" alt="Image" /></td>
</tr>
<tr>
<td>Thursday</td>
<td><img src="image4.png" alt="Image" /></td>
</tr>
<tr>
<td>Friday</td>
<td><img src="image5.png" alt="Image" /></td>
</tr>
<tr>
<td>Saturday</td>
<td><img src="image6.png" alt="Image" /></td>
</tr>
</tbody>
</table>

Answer the following questions from the data given in the above table.

1) The total number of apples sold in six days

2) The total number of apples sold on Thursday

3) The sale was maximum on

4) The sale was minimum on

5) Sales was equal on and
Represent the following data in terms of pictograph.

\[ \text{= 5 Students} \]

<table>
<thead>
<tr>
<th>Standard</th>
<th>No. of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>15</td>
</tr>
<tr>
<td>II</td>
<td>20</td>
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<tr>
<td>III</td>
<td>25</td>
</tr>
<tr>
<td>IV</td>
<td>20</td>
</tr>
<tr>
<td>V</td>
<td>30</td>
</tr>
</tbody>
</table>

1) In a cricket selection match, 25 students participated. The number of runs scored by each student is given below.

<table>
<thead>
<tr>
<th>30</th>
<th>30</th>
<th>32</th>
<th>40</th>
<th>45</th>
</tr>
</thead>
<tbody>
<tr>
<td>32</td>
<td>30</td>
<td>40</td>
<td>45</td>
<td>40</td>
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<td>32</td>
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<tr>
<td>30</td>
<td>30</td>
<td>32</td>
<td>32</td>
<td>30</td>
</tr>
</tbody>
</table>

Prepare a table with tally marks for the above data.
2) The number of computers supplied to few schools is given below.

= 4 Computers

<table>
<thead>
<tr>
<th>School</th>
<th>Computers</th>
</tr>
</thead>
<tbody>
<tr>
<td>School A</td>
<td>![Images]</td>
</tr>
<tr>
<td>School B</td>
<td>![Images]</td>
</tr>
<tr>
<td>School C</td>
<td>![Images]</td>
</tr>
<tr>
<td>School D</td>
<td>![Images]</td>
</tr>
<tr>
<td>School E</td>
<td>![Images]</td>
</tr>
</tbody>
</table>

From the above pictograph, fill in the following data.

a) The number of computers supplied to the school A

b) The total number of computers supplied to all schools

c) The number of computers supplied to the school D

d) The number of computers supplied to the school B

3) Represent the number of students in each class of your school through pictograph.

Comments

Teacher’s signature
'I can, I did'
Student's Activity Record

Subject:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Date</th>
<th>Lesson No.</th>
<th>Topic of the Lesson</th>
<th>Activities</th>
<th>Remarks</th>
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