Lesson-14: Data Handling

Theme 9: Why Do We Look Ahead?

11 Periods (40 minutes each)

Learn Better (Main Coursebook), Stay Ahead (Workbook), Book of Holistic Teaching, Book of Project Ideas, CRM signs, Poster

Animation, Animated Activities, Dictionary, eBook, Explainer Video, HOTS, I Explain, Infographic, Mental Maths, Slideshow, Quiz, Test Generator

Affirming better: I can do great things.

Curricular Goals and Objectives (NCF)

To enable the students:

- to understand and apply data handling concepts in real-life contexts.
- to collect organise and interpret data using graphs.
- to develop problem-solving and critical thinking skills through data-related activities.
- to work collaboratively in group activities to solve data problems.
- to use digital tools to enhance data handling skills.
- to understand the significance of data in making informed decisions.
- to develop communication skills by discussing and sharing insights on data.

Methodology

Period 1

SHOULD DO 5 MIN.

Teacher: Good morning, students. How are you today?

Teacher: Today, we will begin a new chapter 'Data Handling'.

Teacher: Can anyone guess what the word 'data' means?

Teacher: Yes, it means facts or information. Can you think of some examples of information we can collect around us?

Teacher: That is a good thought. We can collect information like your favourite fruit, number of pets or types of transport we use.

Teacher: Why do you think collecting such information is useful?

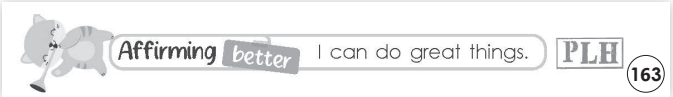
Teacher: That is right. Collecting such information helps us to understand things better. It also helps us to compare, find patterns and make decisions.

Teacher: Now, open your Main Coursebook to page 163.

Affirming better

SHOULD DO 5 MIN.

Teacher: Let us start with the 'Affirming better' section.



Teacher: Today's affirmation is 'I can do great things.'

Teacher: What does this mean to you?

Teacher: Yes, it means believing in ourselves and not giving up.

Teacher: Can anyone share something great they did recently?

Teacher: That is wonderful. You all are capable of doing great things when you try your best.

Teacher: Let us all say it together—I can do great things.

Teacher: We will begin a new chapter, Data Handling.

SHOULD DO 10 MIN.

I have made a KWL format on the blackboard. Please take out your notebooks and draw the same format in your notebooks.

K	W	L

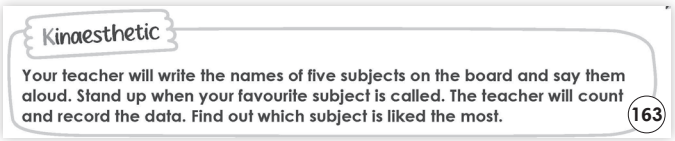
Teacher: Take a few minutes to think and write. If you have any questions, feel free to ask.

Teacher: You all did an amazing work in this activity. Let us move to Re-KAP activities. We will use Kinaesthetic, Auditory and Pictorial activities today to make our learning exciting. Let us start with the Kinaesthetic activity.

Kinaesthetic

Teacher: Let us start the kinaesthetic activity. I will write the names of five subjects on the board—Maths, English, EVS, Art and Craft and Games.

MUST DO
10 MIN.


Kinaesthetic

Your teacher will write the names of five subjects on the board and say them aloud. Stand up when your favourite subject is called. The teacher will count and record the data. Find out which subject is liked the most.

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Teacher: When I call out a subject, stand up if it is your favourite. Ready?

(Call each subject one at a time and let students respond.)

Teacher: I will now count and record how many students like each subject.

Teacher: Let us look at the results. Which subject is liked the most?

Teacher: This is called collecting data. You just helped me make data using your choices.

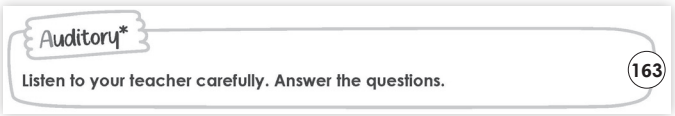
You may show the **eBook** given on the digital platform.

(Use CRM signs to settle down the class.)

Auditory

Teacher: Now, let us do an auditory activity. Listen carefully to the short story. I will ask questions after that.

MUST DO
5 MIN.


Auditory*

Listen to your teacher carefully. Answer the questions.

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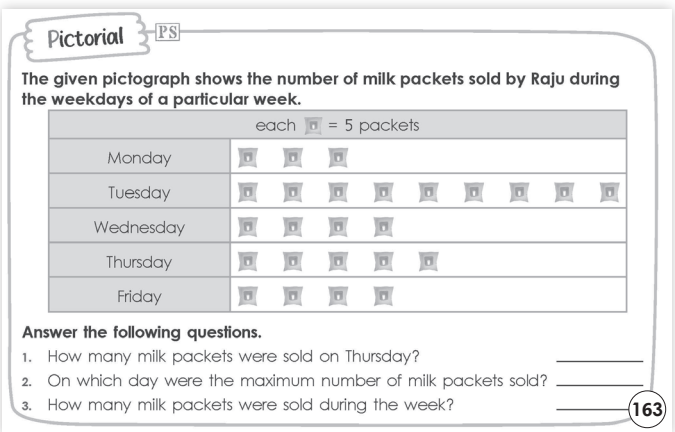
Teacher: During a fun school event, the students excitedly counted the different fruits they brought for snack time. They had 5 apples, 3 bananas and 7 oranges. They decided to sort the fruits by quantity.

1. Which fruit is the most in number?
2. How many bananas did the students bring for the snack?

Pictorial

Teacher: Now, let us move to the pictorial activity on page 163.

MUST DO
5 MIN.


Pictorial PS

The given pictograph shows the number of milk packets sold by Raju during the weekdays of a particular week.

	each = 5 packets
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

Answer the following questions.

1. How many milk packets were sold on Thursday? _____
2. On which day were the maximum number of milk packets sold? _____
3. How many milk packets were sold during the week? _____

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Teacher: Look at the pictograph. It shows the number of milk packets sold from Monday to Friday.

Teacher: Each icon stands for 5 packets.

Teacher: Let us answer the following questions together.

1. How many milk packets were sold on Thursday?
2. On which day were the most packets sold?
3. How many packets were sold during the week?

Teacher: Use the pictograph to help you. Write your answers neatly.

(Use **CRM signs** to settle down the class.)

You may show the **Dictionary** given on the digital platform.

Teacher: Well done, everyone. Let us have a huge round of applause for your hard work today. See you in the next class.

Differentiated Activities

110 km/hr

Make a table to show the favourite subject of 10 of your classmates. After completing the table, write one thing you notice from the data.

80 km/hr

Ask five classmates about their favourite fruit. List the fruits and how many students like each.

40 km/hr

If you want to find out the most common favourite colour in your class, what is the first thing you would do?

Home Task

Draw a pictograph to show how many glasses of water each family member drinks in one day. Use a symbol to represent one glass and explain the symbol clearly.

Period 2

SHOULD DO
5 MIN.

Teacher: Good morning, students. How are you today?

Teacher: In the last class, I asked you to draw a pictograph showing how many glasses of water your family members drink in one day.

Teacher: Who would like to share what symbol you used to show one glass of water?

Teacher: Good. Some of you used a cup or dot. That is creative.

Teacher: Now tell me, who in your family drinks the most water?

Teacher: Very good. And who drinks the least?

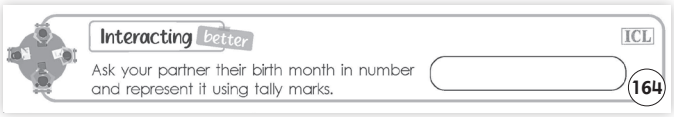
Teacher: Excellent. What did your pictograph help you understand?

Teacher: Yes, the pictograph helped us understand which item was the most and which was the least. It also made the information easy to compare and read.

Interacting better

Teacher: Let us start with the 'Interacting better' section, given on page 164.

MUST DO
10 MIN.



Teacher: Ask your partner their birth month as a number. For example, January is 1, February is 2 and so on.

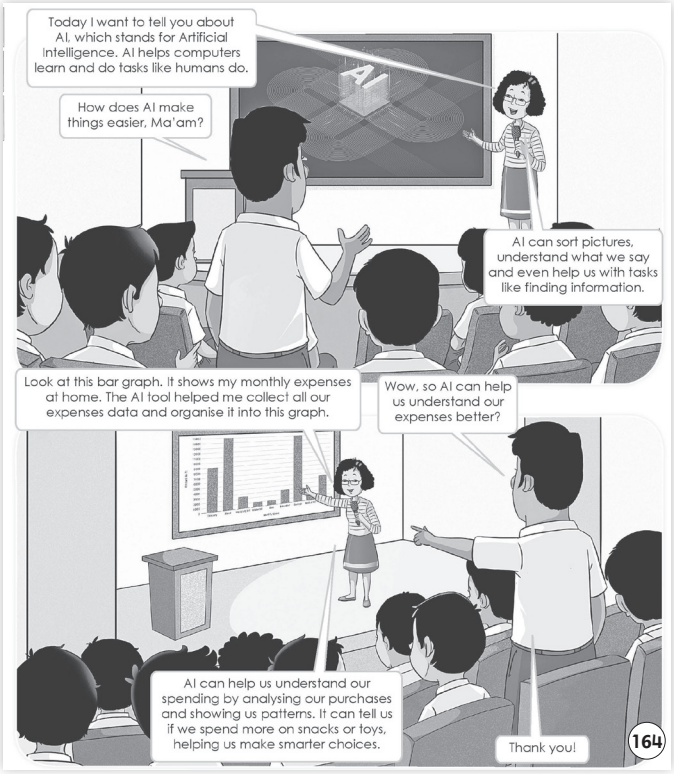
Teacher: Once you collect the data, represent it using tally marks.

Teacher: Use four vertical lines and a slanted line across to show five. Repeat for each month you collect.

Teacher: After you are done, tell your partner which month seems to have the most birthdays.

Teacher: Good work. This is how we collect and organise data using tally marks.

MUST DO
15 MIN.



You may show the **Animation** given on the digital platform.

Teacher: Now, open your Main Coursebook to page 164. We are going to read a story together.

Teacher: Before we start reading, can anyone tell me what you know about Artificial Intelligence or AI?

Teacher: Interesting. Now, let us read the story to see how AI helps in daily life.

(Let students read in pairs or individually. Ask one or two students to explain the story in their own words.)

Teacher: Why did the teacher use AI in the story?

Teacher: Correct, to organise data into a bar graph.

Teacher: What kind of data did she collect?

Teacher: Yes, monthly household expenses.

Teacher: What did the bar graph help the students understand?

Teacher: Exactly, how expenses were spent on snacks, toys, etc.

Teacher: So, how does AI help us in data handling?

Teacher: Right. It helps us collect, sort and analyse information.

Teacher: Now, we will do a follow-up activity using what we learnt.

SHOULD DO
10 MIN.

Teacher: Take your notebooks. Make a table with two columns – Month and Number of Students.

Teacher: Ask five classmates their birth month and record it in the table.

Teacher: Then, draw tally marks to represent how many students are born in each month.

Teacher: Use this data to answer:

- Which month has the most birthdays?
- Which month has the least?

Teacher: Good work. This activity helps us understand data collection using real-life examples

Teacher: Excellent work today, everyone. Let us give ourselves a big round of applause for our hard work and participation. See you in the next period.

Differentiated Activities

110 km/hr

Create a bar graph to show the birth months of your classmates using the data you collected. Write one sentence about which month had the highest number.

80 km/hr

Use your tally mark table to find out which month had the most and least birthdays. Write both in your notebook.

40 km/hr

Write your birth month and your best friend's birth month. Use tally marks to show them.

Home Task

Ask your family members about their birth months. Use tally marks to record the data.

Period 3

Teacher: Good morning, students. How are you today?

SHOULD DO
5 MIN.

Teacher: In the last class, I asked you to collect birth months from your family members and represent them using tally marks.

Teacher: Who would like to share which month had the most birthdays in your family?

Teacher: That is interesting. Now, tell me how you showed the data using tally marks.

Teacher: Excellent. Today, we will learn how to show such data in a bar graph.

Drawing a Bar Graph

Teacher: Let us learn how to draw a bar graph. Open your Main Coursebook to page 165.

MUST DO

10 MIN.

DRAWING A BAR GRAPH

Data can be represented using a bar graph. In a bar graph, the information collected is represented using bars. Bars are rectangular in shape and of uniform width with equal spacing between them.

Example 1: The given table shows the number of students present in each class at the primary level.

Class	I	II	III	IV	V
Number of students	30	40	35	55	50

Draw a bar graph to represent this information.

Let us follow the given steps to draw a bar graph.

STEP 1: Draw two perpendicular rays OX and OY called the X-axis and Y-axis, respectively.

STEP 2: Choose a suitable scale, say 1 cm equals 5 students.

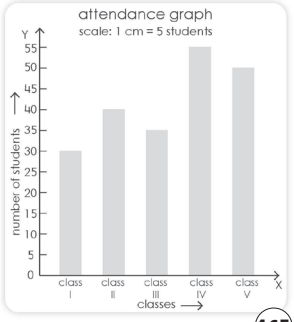
STEP 3: Draw bars of uniform width to represent each class along the X-axis. The top of the bar shows the number of students in each class.

STEP 4: Mark points at uniform intervals, of say 1 cm, to represent the number of students along Y-axis. Label these points as 0, 5, 10 and so on.

STEP 5: Mention the scale used on the top of the graph.

STEP 6: Ensure that each bar has equal gaps between them.

STEP 7: Give a title to the graph.



165

Teacher: Look at the example. What does the table show?

Teacher: Yes, it shows the number of students in each class.

(Discuss the steps given on page 165, with the students.)

MUST DO

10 MIN.

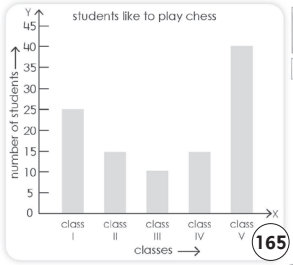
1 **The given bar graph shows the number of students who like to play chess in the primary section. Answer the following questions. Write the answers in your notebook.**

a. Which class has the highest number of students who like to play chess?

b. How many students from class II and class III like to play chess altogether?

c. How many students have been considered for the survey?

d. Which class has the least number of students who like to play chess?



165

Teacher: Now let us look at Exercise 1 on page 165. This bar graph shows how many students in each class like to play chess.

Teacher: I will help you with the first question. Look at the height of each bar and check the number on the Y-axis (vertical line).

a. Which class has the tallest bar?

Teacher: Yes, class V has the tallest bar. So, it has the highest number of students.

b. How many students from class II and class III like to play chess?

Teacher: There are 20 students in class II and 15 students in class III. So, the total number of students in both classes are 20 + 15 = 35.

(Discuss the questions with the students in the similar manner.)

Teacher: Now, write all the answers neatly in your notebook. I will walk around and help you.

MUST DO

10 MIN.

PMD SP

2 **The given table shows the number of subject books issued by a school library in the month of January. Draw a bar graph using the given information, in your notebook.**

Subject	English	Maths	Science	Social Studies	Computer Science
Number of books issued	80	65	45	40	45

166

Teacher: Let us move to Exercise 2. Please look at the table that shows how many subject books were issued in January.

Teacher: The subjects are English, Maths, Science, Social Studies and Computer Science.

(Guide the students to solve Exercise 2.)

You may show the **Animated Activities** given on the digital platform.

Meditation

Teacher: Now, let us take a short moment to relax our minds. Sit comfortably and close your eyes.

COULD DO

5 MIN.

Teacher: Take a deep breath in and slowly breathe out.

Teacher: Imagine you are sitting in a quiet garden. You can hear birds chirping and feel a gentle breeze on your face.

Teacher: Picture the green trees around you and the sound of leaves moving gently in the wind.

Teacher: With every breath, feel yourself becoming more peaceful and calm.

Teacher: Stay in this peaceful garden for one more minute. Just breathe and enjoy the stillness.

Teacher: Slowly open your eyes when you are ready.

Teacher: Excellent work today, everyone. Let us give ourselves a big round of applause for our hard work and calmness. See you in the next period.

Differentiated Activities

110 km/hr

Create a bar graph showing the number of hours you spent on five different activities yesterday (e.g., reading, playing, studying, watching TV, sleeping). Use a scale and give a title.

80 km/hr

Make a table for any four fruits. Ask six classmates which fruit they like the most and draw a bar graph from the data.

40 km/hr

Choose three different colours. Ask three classmates about their favourite colour. Draw three bars of different heights to show the result.

Home Task

Stand near a window for 15 minutes and observe the vehicles that pass by. Count and record how many cars, buses, bikes and cycles you see. Create a bar graph in your notebook to show this data. Use a suitable scale and write a title.

Period 4

SHOULD DO
5 MIN.

Teacher: Good morning, students. How are you today?

Teacher: Let us begin with a short discussion before we start today's class.

Teacher: What do you usually do when you get free time at home?

Teacher: Interesting answers. Some of you mentioned reading, others said playing or watching television.

Teacher: Why do you think we all enjoy different activities?

Teacher: Yes, it is because we all have different likes and interests.

Teacher: Do you think we can collect this information and show it in a graph?

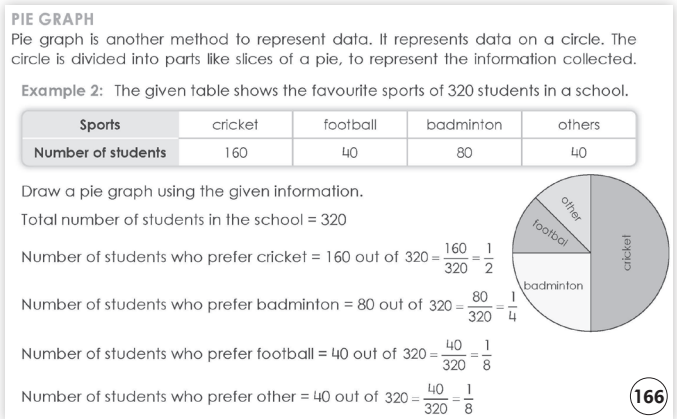
Teacher: That is right. Today we will learn a new way of showing such information using a pie graph.

Pie Graph

MUST DO
15 MIN.

Teacher: Open your Main Coursebook to page 166.

Teacher: A pie graph is also called a circle graph. It shows data as parts or slices of a circle.



PIE GRAPH

Pie graph is another method to represent data. It represents data on a circle. The circle is divided into parts like slices of a pie, to represent the information collected.

Example 2: The given table shows the favourite sports of 320 students in a school.

Sports	cricket	football	badminton	others
Number of students	160	40	80	40

Draw a pie graph using the given information.

Total number of students in the school = 320

Number of students who prefer cricket = 160 out of $320 = \frac{160}{320} = \frac{1}{2}$

Number of students who prefer badminton = 80 out of $320 = \frac{80}{320} = \frac{1}{4}$

Number of students who prefer football = 40 out of $320 = \frac{40}{320} = \frac{1}{8}$

Number of students who prefer other = 40 out of $320 = \frac{40}{320} = \frac{1}{8}$

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Teacher: Look at the example showing favourite sports. The total number of students is 320.

Teacher: Read the table with me – cricket 160, badminton 80, football 40, others 40.

Teacher: Now look at how they have written fractions:

- 160 out of 320 = one-half (cricket)
- 80 out of 320 = one-fourth (badminton)
- 40 out of 320 = one-eighth (football and others)

Teacher: The circle is divided based on these parts. That is how each slice is made.

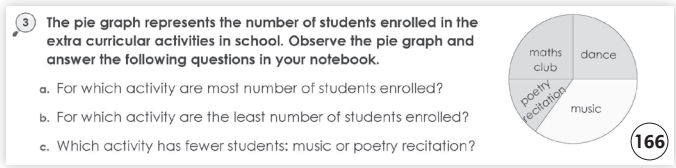
Teacher: Let us look at the pie graph next to it. Do the sizes of slices match the numbers?

Teacher: Good. Bigger numbers take up more space. This is the basic idea of a pie graph.

MUST DO
10 MIN.

You may show the **Explainer Video** given on the digital platform.

Teacher: Let us look at Exercise 3 now.



3 The pie graph represents the number of students enrolled in the extra curricular activities in school. Observe the pie graph and answer the following questions in your notebook.

a. For which activity are most number of students enrolled?

b. For which activity are the least number of students enrolled?

c. Which activity has fewer students: music or poetry recitation?

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Teacher: Observe the pie graph that shows the number of students enrolled in school activities.

Teacher: Let us answer these questions together:

a. Which activity has the biggest slice?

Teacher: Yes, it is dance. So, most students are enrolled in dance.

b. Which activity has the smallest slice?

Teacher: It is the poetry recitation.

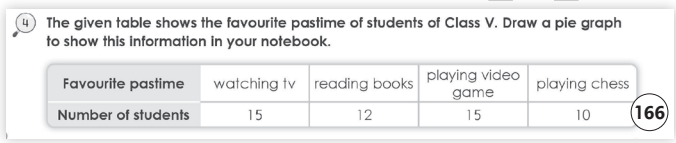
c. Which has fewer students music or poetry recitation?

Teacher: Check the sizes again. Yes, poetry recitation has fewer.

Teacher: Now write all three answers in your notebook neatly.

MUST DO
10 MIN.

You may show the **I Explain** given on the digital platform.



4 The given table shows the favourite pastime of students of Class V. Draw a pie graph to show this information in your notebook.

Favourite pastime	watching tv	reading books	playing video game	playing chess
Number of students	15	12	15	10

166

Teacher: Let us now solve Exercise 4.

Teacher: First, add the total number of students: 15 + 12 + 15 + 10 = 52 students.

Teacher: We will now find the fraction for each pastime. I will guide you through the first one.

- Watching TV: 15 out of 52

Teacher: So, we write $\frac{15}{52}$ for watching TV.

(Guide the students to solve the question.)

Teacher: Well done students Let us have huge round of applause.

Differentiated Activities

110 km/hr

Survey the class on which book they last read and categorize the responses into types of books (e.g., Fiction, Non-fiction, Mystery, Fantasy, etc.). Record the data and create a pie chart to represent the distribution of

book types. Analyze the results to see which type of book is most popular and write a reflection on how reading different genres can impact learning and creativity.

80 km/hr

Ask 6 students about the last book they read and categorize the books into 3 types (e.g., Fiction, Non-fiction or Comic). Record the data using tally marks, then create a pie chart to show the distribution. Discuss which type of book is the most common and why students might prefer that type of book.

40 km/hr

Survey 5 students to find out what their last book was. Record the responses using tally marks. Afterward, simply count the total number of responses for each book.

Home Task

Ask three family members how they spend their free time (TV, reading, cooking, walking). Create a table from their responses and write which activity is the most common.

Period 5

SHOULD DO 5 MIN.

Teacher: Good morning, students. How are you today?

Teacher: In the last class, we created pie graphs and talked about activities we enjoy.

Teacher: Can anyone tell me how we show big data in small, clear parts using a circle?

Teacher: That is right, using a pie graph.

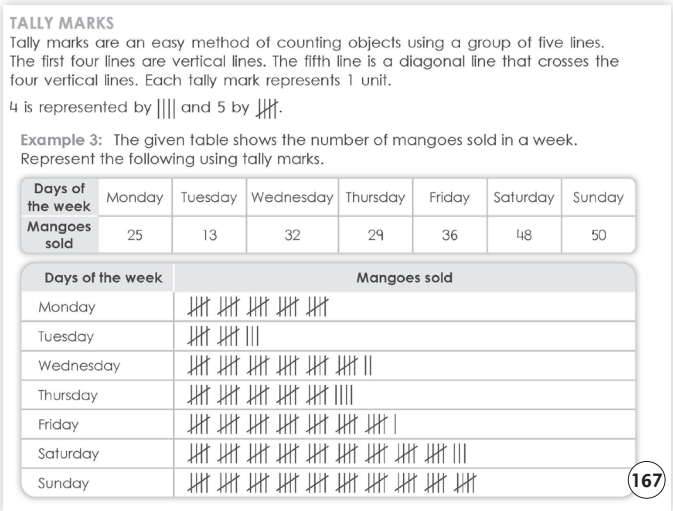
Teacher: Today, we are going to learn an easier and faster way to count and show data, using tally marks.

Tally Marks

MUST DO 10 MIN.

Teacher: Open your Main Coursebook to page 167.

Teacher: Tally marks are a way of counting using lines.



TALLY MARKS

Tally marks are an easy method of counting objects using a group of five lines. The first four lines are vertical lines. The fifth line is a diagonal line that crosses the four vertical lines. Each tally mark represents 1 unit.

4 is represented by |||| and 5 by 𝍸.

Example 3: The given table shows the number of mangoes sold in a week. Represent the following using tally marks.

Days of the week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Mangoes sold	25	13	32	29	36	48	50

Days of the week	Mangoes sold
Monday	𝍸 𝍸 𝍸 𝍸 𝍸
Tuesday	𝍸 𝍸 |||
Wednesday	𝍸 𝍸 𝍸 𝍸 𝍸 ||
Thursday	𝍸 𝍸 𝍸 𝍸 ||||
Friday	𝍸 𝍸 𝍸 𝍸 𝍸	
Saturday	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 |||
Sunday	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸

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Teacher: The first four lines are straight: ||||. The fifth line crosses over them diagonally.

Teacher: So, every bundle of 𝍸 means 5. This helps us count quickly in groups of five.

Teacher: Look at the example on the page—the mangoes sold in a week.

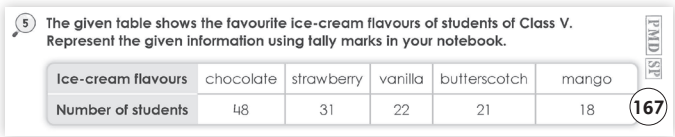
Teacher: How many mangoes were sold on Wednesday?

Teacher: Yes, 32. Now look at how it is shown with tally marks: 6 bundles of 5 and 2 extra lines.

Teacher: 5 × 6 = 30, plus 2 more = 32.

Teacher: This is how we show data clearly and fast.

MUST DO 10 MIN.



5 The given table shows the favourite ice-cream flavours of students of Class V. Represent the given information using tally marks in your notebook.

Ice-cream flavours	chocolate	strawberry	vanilla	butterscotch	mango
Number of students	48	31	22	21	18

FIND IS

167

Teacher: Now let us solve Exercise 5 on the same page.

Teacher: The table shows the number of students who like different ice cream flavours.

Teacher: Our task is to represent these numbers using tally marks in our notebooks.

Teacher: Let us do the first one together – chocolate

- Number of students = 48
- One group of tally marks = 5 students
- Divide 48 by 5. 48 ÷ 5 = 9 full groups of 5 and 3 extra
- Total 9 bundles and 3 tallies = 45 + 3 = 48

Teacher: Now complete the rest. Remember to group your tallies neatly. I will walk around and check your work. If you are unsure, ask for help

SHOULD DO 15 MIN.

Teacher: Now we will do a quiet observation activity using tally marks.

Teacher: Stay seated and look around the classroom carefully. You will observe the number of items you see in three categories:

- Bags
- Pencil boxes
- Windows
- Fans
- Water bottles
- Doors
- Lights

Teacher: Make a table like this in your notebook:

Items	Tally Marks
Bags	
Water bottles	
Pencil Boxes	
Doors	
Windows	
Lights	
Fans	

Teacher: Count how many of each item you see around you and record them using tally marks.

Teacher: Work quietly and independently. After 10 minutes, we will discuss which item was seen the most.

Teacher: Great work today, everyone. You observed carefully, worked independently and used tally marks correctly. Let us all give ourselves a big round of applause for our focus and effort. See you in the next period.

Differentiated Activities

110 km/hr

Survey the class on how many liters of water they drink each day for a week. Record the data using tally marks and then calculate the average daily intake for the class. Afterward, create a line graph to show water intake trends over the week, marking high and low points.

80 km/hr

Record how many times you see red, green and blue objects around your class. Show the data using tally marks.

40 km/hr

Survey 5 students on how many cups of water they drink each day. Record the data using tally marks.

Home Task

Look around your home and count the number of chairs, tables, fans and windows. Record the data using tally marks in your notebook.

Period 6

SHOULD DO
5 MIN.

Teacher: Good morning, students. How are you today?

Teacher: In the previous class, we learnt how to record and represent data using tally marks.

Teacher: Can anyone tell me why tally marks are grouped in fives?

Teacher: That is correct. It helps us count quickly and clearly.

Teacher: Today, we will learn how to represent data in another way — by drawing a line graph.

Drawing A Line Graph

Teacher: Please open your Main Coursebook to page 167.

Teacher: Look at the example given. It shows the average temperature of a city during the first seven months.

Teacher: In a line graph, we use points to represent data, then we connect the points with lines.

MUST DO
15 MIN.

DRAWING A LINE GRAPH

We can also use line graphs to represent data. To draw a line graph, data is first represented by points in a graph and then the points are connected by a line.

Example 4: The given line graph shows the average temperature of a city in the first seven months.

Answer the following questions using the given information.

a. Which two months experienced the highest temperature in the year? June and July

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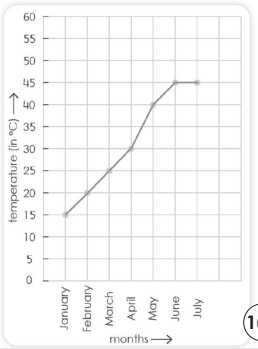
b. Which month experienced the lowest temperature in seven months? January

c. What was the average temperature in the month of April? 30°C

d. Which months experienced the average temperature less than 30°C? January, February and March

e. What is the rise in temperature from March to July? 20°C



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Teacher: On the X-axis (Horizontal lines), we write the names of months. On the Y-axis (Vertical lines), we show temperature.

Teacher: The line goes up or down depending on the values.

Teacher: Let us answer the first question together.

a. Which two months had the highest temperature?

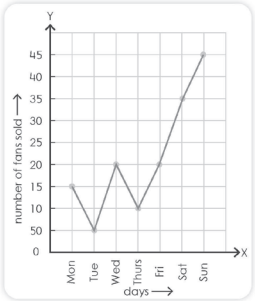
Teacher: Yes, June and July.

Teacher: Now read the graph carefully and answer the remaining questions in your notebook.

MUST DO
10 MIN.

Teacher: I will help you as you work.

6 The line graph shows the number of fans sold in the first week of June. Answer the questions, using the given information. Write the answers in your notebook.



a. How many fans were sold on Friday?

b. How many more fans were sold on Sunday than on Wednesday?

c. On which day were the maximum number of fans sold?

d. On which two days the same number of fans were sold?

e. How many fans were sold altogether in one week?

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Teacher: Now turn the page and look at the graph showing the number of fans sold during the first week of June, in Exercise 6.

Teacher: What does the X-axis (Horizontal lines) show?

Teacher: Days of the week. And the Y-axis (Vertical lines)?

Teacher: Number of fans sold. Let us read the points carefully.

Teacher: Let us do the first two questions together:

a. How many fans were sold on Friday?

Teacher: Check the value above Friday – 25 fans.

b. How many more fans were sold on Sunday than on Wednesday?

Teacher: Sunday – 45, Wednesday – 20.

Teacher: So, 45 – 20 = 25 more fans were sold on Sunday.

Teacher: Now, complete the rest of the questions and write your answers in your notebook.

Connecting better

MUST DO
5 MIN.

Teacher: Let us move to the 'Connecting better' section.


Connecting better

English

Ryan and his Mummy go for a walk. Ryan says, "Mummy, it's a nice day today." Mummy replies, "It is a nice day." Ryan says, "I get confused between its and it's." Mummy replies, "Its is a possessive word, used to say that something belongs or refers to someone or something. The possessive its does not have an apostrophe. When we write it in short, we remove the 'i' of 'is' and add an apostrophe - it's." Ryan says, "Thank you for explaining the difference to me, Mummy."

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Teacher: Read the conversation between Ryan and his mother. They are talking about the difference between 'its' and 'it's'.

Teacher: Who can explain what 'it's' means?

Teacher: Yes, it is short for 'it is'. And what does 'its' mean?

Teacher: Correct, it shows possession – something that belongs to someone.

Teacher: Very good. Understanding these small things helps us write better when explaining data or writing observations.

COULD DO
5 MIN.

Teacher: Let us do a quick recap. I will describe a graph and you tell me which type it is.

Teacher: I will say the phrase and you say the graph. Ready?

- Bars of equal width – Bar graph
- Lines grouped in fives – Tally marks
- Data points joined by lines – Line graph

Teacher: Excellent. That shows how well you understand the differences.

Teacher: Wonderful learning today. You understood how to read and draw line graphs and applied your thinking. Let us all give ourselves a big round of applause. See you in the next period.

Differentiated Activities

110 km/hr

Survey the class and create a pie chart that represents the favourite subjects. Discuss why certain subjects are more popular and analyze the results. Write an essay discussing why certain subjects are favored by students, using data from the pie chart to support your argument.

80 km/hr

Survey the class and create a bar chart to represent the most and least favourite subjects. Discuss which subjects need more focus.

40 km/hr

Ask your classmates to choose their favorite subject from Hindi, English and Maths. Record the results using tally marks. For example, if 3 students like Hindi, write 3 tallies next to Hindi. Afterward, count the tallies for each subject and discuss which subject is the most popular.

Home Task

Note down the marks you got in your last five class tests. Use this data to draw a line graph in your notebook. Label the tests and marks properly.

Period 7

SHOULD DO
5 MIN.

Teacher: Good morning, students. How are you today?

Teacher: Yesterday we learnt to draw and read line graphs. Can someone tell me how a line graph is different from a bar graph?

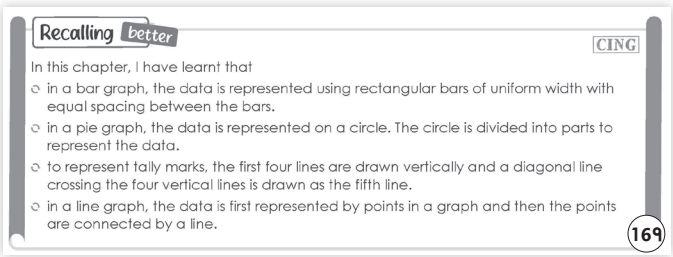
Teacher: Very good. A line graph connects points with lines, while bar graphs use rectangular bars.

Teacher: Today, we will revise everything we have learnt so far in this chapter.

Recalling better

MUST DO
15 MIN.

Teacher: Let us start with the 'Recalling better' section. I will ask some questions, raise your hands if you know the answer or want to add anything.


Recalling better

CING

In this chapter, I have learnt that

- in a bar graph, the data is represented using rectangular bars of uniform width with equal spacing between the bars.
- in a pie graph, the data is represented on a circle. The circle is divided into parts to represent the data.
- to represent tally marks, the first four lines are drawn vertically and a diagonal line crossing the four vertical lines is drawn as the fifth line.
- in a line graph, the data is first represented by points in a graph and then the points are connected by a line.

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Teacher: Here is your first question. In which type of graph is data shown using rectangular bars of equal width?

Teacher: The answer is bar graph. Good work. It makes comparing different data values very clear.

Teacher: Next question. In which type of graph is data shown in circular parts like slices of a pie?

Teacher: Yes, it is a pie graph. Excellent. Each slice shows a part of the total data.

Teacher: How do we show numbers using tally marks?

Teacher: We draw four straight lines and the fifth one crosses them diagonally. That is correct. Well explained.

Teacher: Now tell me, how do we draw a line graph?

Teacher: We plot the data points and join them using straight lines. Wonderful. It shows change over time clearly.

Teacher: Very well done, everyone. You remembered the main features of all four types of graphs.

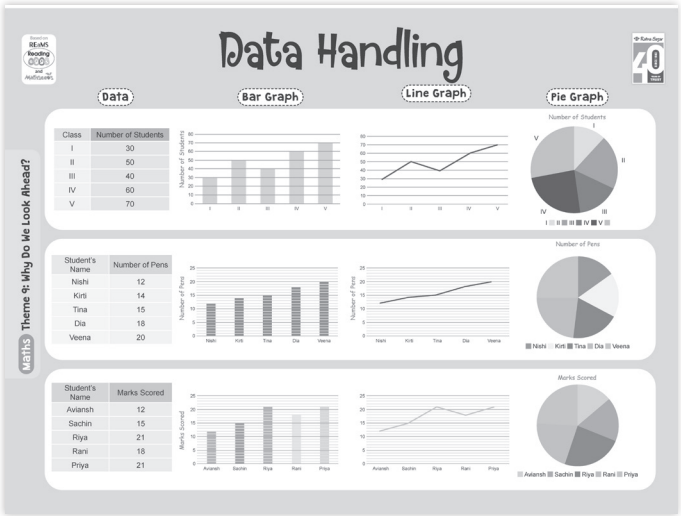
You may show the **Mental Maths** given on the digital platform.

Poster

Teacher: Now, let us look at the poster showing different types of graphs.

MUST DO

10 MIN.



Teacher: We will work in three groups and each group will focus on one of the three questions from the poster.

Teacher: Each group will represent the data for their question in four different forms—data table, bar graph, line graph and pie graph.

Teacher: Here are the questions:

Teacher: Group 1 will work on the first question. Group 2 will work on the second question. Group 3 will work on the third question.

Teacher: Each group will use the data from the poster and represent it in all four forms (data, bar graph, line graph, pie graph).

Teacher: After that, each group will present their answers to the class.

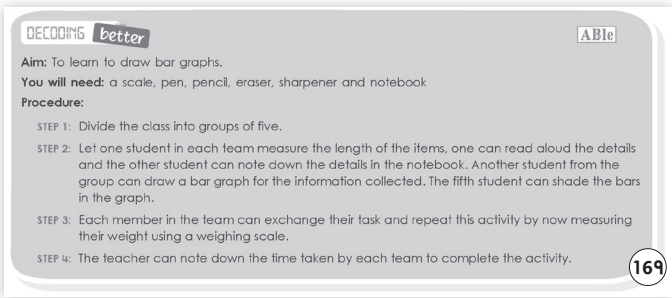
Teacher: Let us begin. You have 7 minutes to work in your groups.

Decoding better

Teacher: Now, we will do the 'Decoding better' activity to learn how to draw bar graphs based on real data.

MUST DO

10 MIN.


DECODING better

ABle

Aim: To learn to draw bar graphs.

You will need: a scale, pen, pencil, eraser, sharpener and notebook

Procedure:

STEP 1: Divide the class into groups of five.

STEP 2: Let one student in each team measure the length of the items, one can read aloud the details and the other student can note down the details in the notebook. Another student from the group can draw a bar graph for the information collected. The fifth student can shade the bars in the graph.

STEP 3: Each member in the team can exchange their task and repeat this activity by now measuring their weight using a weighing scale.

STEP 4: The teacher can note down the time taken by each team to complete the activity.

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(Guide the students to complete the activity.)

Teacher: I will walk around to observe and support you as you work.

Teacher: Well done, everyone. You successfully measured, recorded and drew bar graphs today. Let us all give ourselves a big round of applause for the effort and focus we put in today. See you in the next period.

Differentiated Activities

110 km/hr

Survey the class on how many hours they spend on hobbies each week. Record the data with tally marks and create a line graph to show how time spent on hobbies changes over the week.

80 km/hr

Ask 6 students how many hours they spend on hobbies weekly. Record the data with tally marks and create a pictograph to represent how much time is spent on different hobbies.

40 km/hr

Survey 5 students about their hobby time and use tally marks to record their responses.

Home Task

Count the number of windows, doors and chairs in your house. Record the data using tally marks, then draw a bar graph to represent the data in your notebook.

Period 8

SHOULD DO

5 MIN.

Teacher: Good morning, students. How are you today?

Teacher: Before we start, let us quickly recall some concepts we have learned so far. I will ask a few questions and you can answer them. Ready?

Teacher: Which type of graph is used to show changes over time?

Teacher: Yes, the line graph. Well done. A line graph helps us see how data changes at different points.

Teacher: In which graph are data shown as slices of a circle?

Teacher: Correct. The pie graph. Great. It divides data into slices, just like a pie.

Teacher: How do we represent data using tally marks?

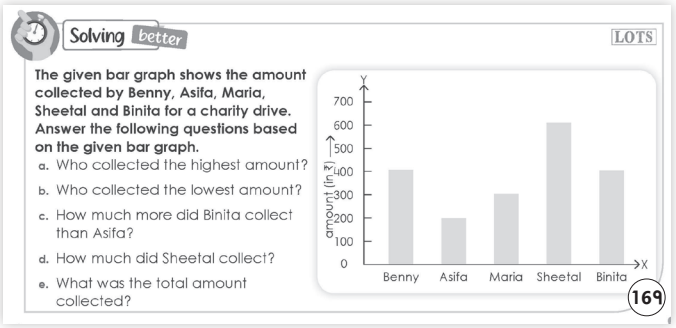
Teacher: Yes, we use four vertical lines and the fifth one is a diagonal line. Excellent. Tally marks make counting faster.

Teacher: Wonderful work, everyone. Let us now begin our lesson.

Solving better

Teacher: Let us begin with the 'Solving better' section. Please open your book to page 169.

MUST DO
10 MIN.


Solving better
LOTS
The given bar graph shows the amount collected by Benny, Asifa, Maria, Sheetal and Binita for a charity drive. Answer the following questions based on the given bar graph.
a. Who collected the highest amount?
b. Who collected the lowest amount?
c. How much more did Binita collect than Asifa?
d. How much did Sheetal collect?
e. What was the total amount collected?

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Teacher: This bar graph shows the amount collected by Benny, Asifa, Maria, Sheetal and Binita for a charity drive. Let us solve the questions together.

Teacher: a. Who collected the highest amount?

Teacher: Yes, Sheetal collected the highest amount. Well done.

Teacher: b. Who collected the lowest amount?

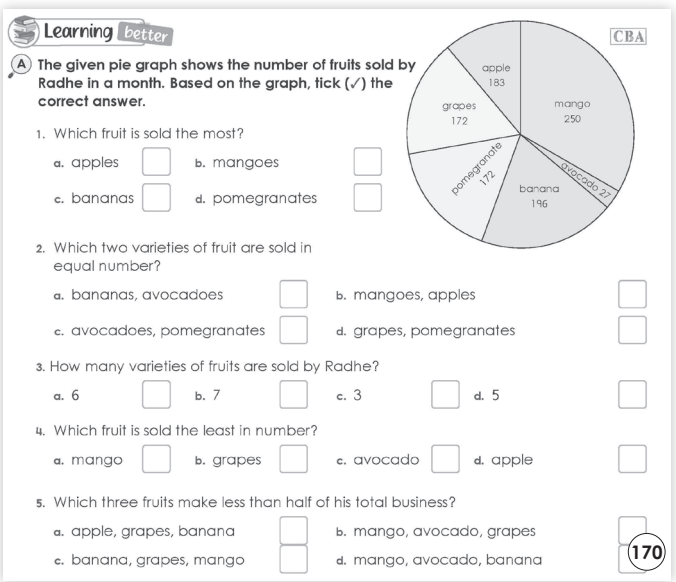
Teacher: Asifa collected the lowest amount. Great observation.

(Discuss other questions in the similar manner.)

Learning better

Teacher: Let us move to the 'Learning better' section. Please open page 170.

MUST DO
10 MIN.


Learning better
CBA
A The given pie graph shows the number of fruits sold by Radhe in a month. Based on the graph, tick (✓) the correct answer.

1. Which fruit is sold the most?
a. apples ☐ b. mangoes ☐
c. bananas ☐ d. pomegranates ☐
2. Which two varieties of fruit are sold in equal number?
a. bananas, avocadoes ☐ b. mangoes, apples ☐
c. avocadoes, pomegranates ☐ d. grapes, pomegranates ☐
3. How many varieties of fruits are sold by Radhe?
a. 6 ☐ b. 7 ☐ c. 3 ☐ d. 5 ☐
4. Which fruit is sold the least in number?
a. mango ☐ b. grapes ☐ c. avocado ☐ d. apple ☐
5. Which three fruits make less than half of his total business?
a. apple, grapes, banana ☐ b. mango, avocado, grapes ☐
c. banana, grapes, mango ☐ d. mango, avocado, banana ☐
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Teacher: Look at the pie graph showing the number of fruits sold by Radhe. Let us answer these questions:

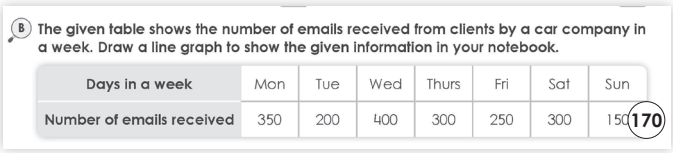
1. Which fruit is sold the most?

Teacher: Yes, mangoes are sold the most. Good work.

(Guide students to solve the questions in the similar manner.)

Teacher: Now, let us move to 'Exercise B'. Please look at the table on page 170.

MUST DO
10 MIN.


B The given table shows the number of emails received from clients by a car company in a week. Draw a line graph to show the given information in your notebook.

Days in a week	Mon	Tue	Wed	Thurs	Fri	Sat	Sun
Number of emails received	350	200	400	300	250	300	150

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Teacher: This table shows the number of emails received by a car company during the week.

Teacher: I would like you to draw a line graph based on the data from this table.

Teacher: Remember to label the X-axis (Horizontal lines) with the days of the week and the Y-axis (Vertical lines) with the number of emails received.

Teacher: Complete the graph. Once done, we will discuss the results together.

You may show the **HOTS** given on the digital platform.

Doubt Session

Teacher: Now, let us take a moment for any questions you may have about the entire chapter on Data Handling.

SHOULD DO
5 MIN.

Teacher: Think about all the topics we have covered — tally marks, bar graphs, line graphs and pie graphs.

Teacher: Is there anything about drawing graphs, reading graphs or interpreting data that you are unsure about?

Teacher: Feel free to ask any questions. I am here to help clarify any doubts you may have.

Teacher: Great work today, everyone. You solved problems, drew graphs and learned together. Let us give ourselves a big round of applause. See you in the next period.

Differentiated Activities

110 km/hr

First, survey 10 classmates to find out how many hours they spend on screens each day. Record their answers using tally marks. After collecting the data, create a line graph to show how screen time changes over the week. Analyze the graph to see which days had the highest screen time and then create a Screen Time Awareness Campaign. In your campaign, suggest ways for balancing screen time with other activities like outdoor play, reading or hobbies.

80 km/hr

Ask 6 classmates how many hours they spend on screens each day and record the answers with tally marks. Once you have the data, create a pictograph where each symbol represents 1 hour of screen time. After completing the pictograph, discuss the results with the class to see which screen time range is most common.

40 km/hr

Survey 5 classmates about their daily screen time and record their answers with tally marks. Using the tally data, create a simple bar graph to represent the different amounts of screen time. Once the graph is complete, analyze the results to see who has the highest screen time.

Home Task

Solve Exercise C given on page 170 in the Main Coursebook.

Period 9

SHOULD DO
5 MIN.

Teacher: Good morning, students. How are you today?

Teacher: Let us begin with a warm-up based on our previous lesson. I will describe situations and you tell me if the data shown would increase or decrease.

Teacher: A shop sold 20 ice creams on Monday and 35 on Tuesday. What happened to the sales?

Teacher: Yes, they increased.

Teacher: A class had 40 students last year. This year, it has 36 students. What happened to the number of students?

Teacher: Correct, it decreased.

Teacher: A farmer harvested 300 kg of rice in January and 300 kg in February. What can we say?

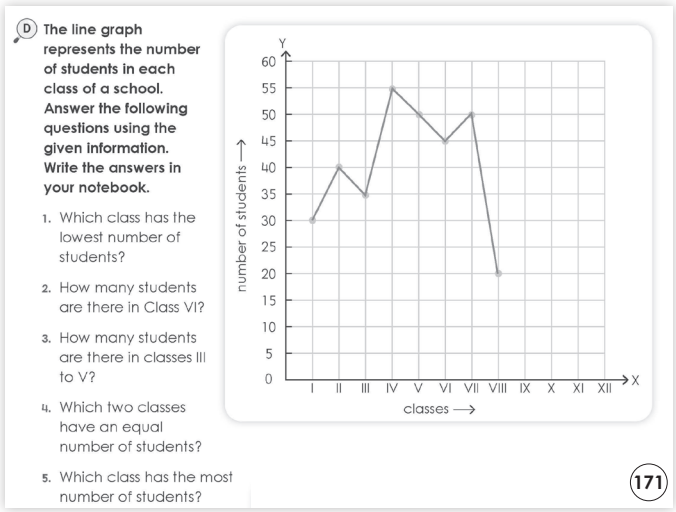
Teacher: Yes, it remained the same.

Teacher: Well done, everyone. Now, let us begin our lesson.

You may show the **Quiz** given on the digital platform.

MUST DO
10 MIN.

Teacher: Open your Main Coursebook to page 171. Let us solve the Exercise D.



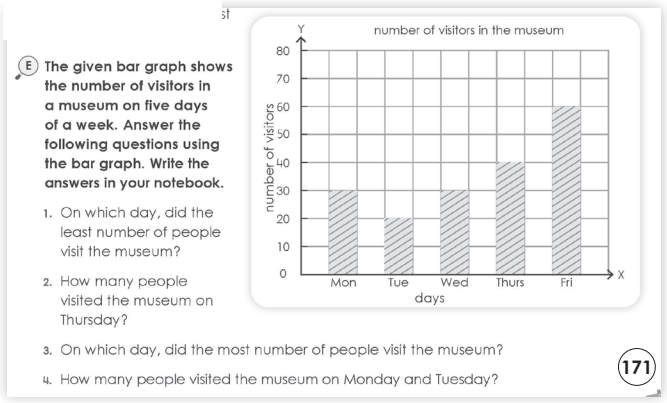
Teacher: In this question, we are asked to look at a bar graph and interpret the data.

Teacher: Look at question (a). Which class has the lowest number of students?

Teacher: Yes class VIII, good observation. Now, let us solve other questions.

MUST DO
10 MIN.

Teacher: Everyone, please open your books to page 171.



Teacher: Look at the bar graph titled 'Number of visitors in the museum'. Let us discuss the questions one by one. You will work with your partners to answer them.

Teacher: First question. On which day did the least number of people visit the museum?

Teacher: Look at the graph carefully. Work with your partner and point to the day with the shortest bar.

Teacher: Discuss and note it down.

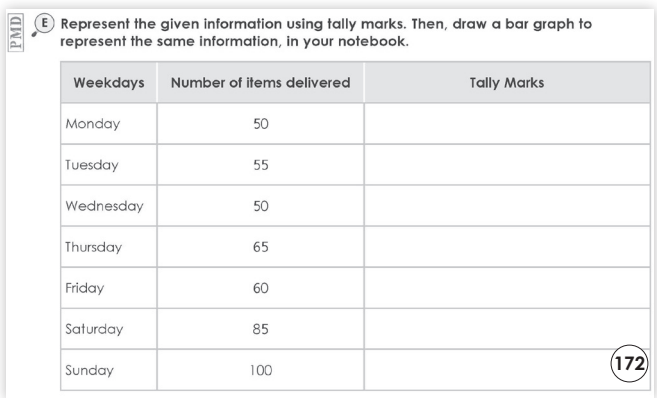
Teacher: Second question. How many people visited the museum on Thursday?

Teacher: Trace the bar for Thursday and read the number on the Y-axis (Vertical lines).

Teacher: Share your answers with your partner.

MUST DO
10 MIN.

Teacher: Let us now look at Exercise F in your notebook.



Teacher: This table shows the number of items delivered each day of the week:

Teacher: Use tally marks to represent the number of items delivered.

Teacher: Complete the tally marks for each day, then use this data to draw a bar graph in your notebook.

Teacher: The X-axis (Horizontal lines) will show the weekdays and the Y-axis (Vertical lines) will show the number of items delivered.

Teacher: After completing the tally marks and bar graph, we will discuss the findings together.

Doubt Session

SHOULD DO — 5 MIN.

Teacher: Now, let us take a moment for any questions you may have about the entire chapter on Data Handling.

Teacher: Think about all the topics we have covered — tally marks, bar graphs, line graphs and pie graphs.

Teacher: Is there anything about drawing graphs, reading graphs or interpreting data that you are unsure about?

Teacher: Feel free to ask any questions. I am here to help clarify any doubts you may have.

Teacher: Excellent work today. You all did a great work with tally marks and bar graphs. Let us end with a big round of applause for all your hard work. See you in the next period.

Differentiated Activities

110 km/hr

Survey your classmates about how many minutes of exercise they do each day. Ask 10 students. Record their answers using tally marks.

80 km/hr

Ask 6 classmates how many minutes of exercise they do daily.

Create a pictograph with a simple key (e.g., 1 symbol = 5 minutes of exercise). Represent the number of minutes in a clear and easy-to-read format.

40 km/hr

Survey 4 classmates about how many minutes of exercise they do daily. Record their answers using tally marks.

Home Task

Track the types of food you and your family eat for one day. Record the servings of healthy foods (fruits, vegetables) and unhealthy foods (chips, sugary drinks) using tally marks. Create a bar graph or pie graph to represent the data. Write a short reflection on how balanced your family's food intake was and how you could improve it.

For the 'Creating better' activity, please bring 3 cardboard rolls of different sizes, a piece of cardboard, glue or tape and scissors (with adult supervision). You will also need markers, crayons or paints to decorate the rolls and cardboard. Optional decorative items like stickers or googly eyes can be used to personalize your pen stand. Bring your 'Little Book' for revising better activity.

Period 10

SHOULD DO — 5 MIN.

Teacher: Good morning, students. How are you today?

Teacher: In the last period, we learnt how to use tally marks and bar graphs to represent data.

Teacher: Today, we are going to do a few activities and discussions based on what we have already learned.

Teacher: To start, let us think about how we use data in our daily lives. Can anyone tell me how you collect data in your home or school?

Teacher: For example, you might keep track of your study time or record your favourite foods.

Teacher: We can represent this data in many ways – tally marks, bar graphs, pie graphs and more. Today, we will focus on a creative activity and revisit some important concepts from our previous lessons.

Creating better

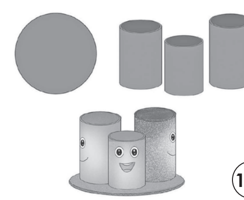
MUST DO — 15 MIN.

Teacher: Now, let us move to the 'Creating better' section, given on page 172 in the Main Coursebook.

Creating better ArtI 21st CS

Make a pen stand.

- Take 3 cardboard rolls of different sizes and a piece of cardboard.
- With the help of an adult, cut the piece of cardboard into a circle.
- Paste the rolls onto the cardboard piece to make a pen stand.
- Decorate the rolls and the cardboard piece with colours and draw faces on them.
- Use your pen stand to sort out your stationery.



172

Teacher: We will create a pen stand using three cardboard rolls of different sizes and a piece of cardboard. This will help you organise your stationery and give you the opportunity to be creative.

(Guide the students to complete the activity)

You may show the **Infographics** given on the digital platform.

Thinking better

MUST DO — 5 MIN.

Teacher: Let us now move to the 'Thinking better' section.

Thinking better 21st CS HOTS

Think and write the answer in your notebook.

Sohan passed his annual exams with good marks. He scored between 80 and 90 marks in all the subjects. In no two subjects did he get the same marks. He scored the lowest odd number in Hindi and highest even number in Maths. In Science, he scored an odd number divisible by 17. Based on the given information, complete the table using tally marks. 172

Subjects	Marks Scored
English	卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 |
Maths	
Science	
Hindi	
Social Studies	卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 ||||

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Teacher: Sohan scored marks between 80 and 90 in all subjects, but no two subjects have the same marks. Let us use the clues to figure out the marks.

Teacher: In Maths, Sohan scored the highest even number. What is the highest even number between 80 and 90?

Teacher: Yes, 88. So, Sohan scored 88 marks in Maths.

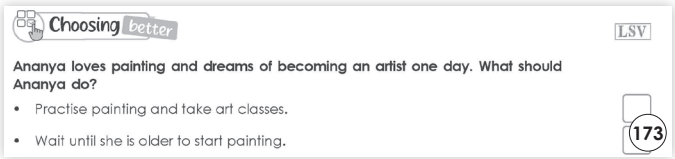
Teacher: In Hindi, Sohan scored the lowest odd number. What is the lowest odd number between 80 and 90?

Teacher: Correct, 81. So, Sohan scored 81 marks in Hindi. Find out the remaining marks.

Choosing better

MUST DO
5 MIN.

Teacher: Next, let us move to the 'Choosing better' Section.



Teacher: Ananya loves painting and dreams of becoming an artist one day. What do you think she should do?

1. Practise painting and take art classes.
2. Wait until she is older to start painting.

Teacher: Let us think critically about the two options. If Ananya starts practicing now, how will it help her?

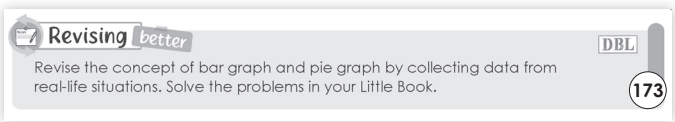
Teacher: Yes, by starting early, she can develop her skills and build her portfolio.

Teacher: So, the best option is to start practising and take art classes. This shows us that taking action now will lead to greater success in the future.

Revising better

MUST DO
5 MIN.

Teacher: Now, let us move to the 'Revising better' section. Open your 'Little Book.



Teacher: We will revise the concepts of bar graphs and pie graphs by collecting data from real-life situations.

Teacher: I would like you to collect data about your classmates' favourite subjects or hobbies.

Teacher: Once you have gathered the data, draw either a bar graph or a pie graph to represent the information.

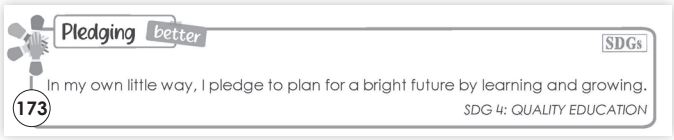
Teacher: After completing the graph, let us discuss what patterns we notice.

Teacher: This will help us apply what we have learned to real-life scenarios.

Pledging better

MUST DO
5 MIN.

Teacher: Finally, let us move to the 'Pledging better' section.



Teacher: We pledge to plan for a bright future by learning and growing.

Teacher: Let us say this together:

In my own little way, I pledge to plan for a bright future by learning and growing.

Teacher: This is part of SDG 4: Quality Education. Always remember, learning is the key to growth and a bright future.

Teacher: Excellent work today. You have done a fantastic work understanding tally marks, graphs and data. Let us all give ourselves a big round of applause for our effort. See you in the next period

Differentiated Activities

110 km/hr

Survey the class and sort the data into categories (e.g., Walking, Car, Bus, Bicycle). Create a pie chart with coloured sections for each category. Analyze the most popular mode of transport. Write a report on how different modes of transport affect the environment, using class data to back up your points.

80 km/hr

Survey the class and create a bar chart to compare how many students use each type of transport. Discuss which mode is used the most.

40 km/hr

Survey the class on modes of transport, use a tally chart and create a simple bar graph.

Home Task

(Refer to the book of Project Ideas, under the title 'Data Handling.' This project should be assigned to the students to work on. Ensure that the students understand the project requirements and provide any necessary guidance or materials they might need.)

Period 11

SHOULD DO
5 MIN.

Teacher: Good morning, students. How are you today?

Teacher: Today is our final period on Data Handling. We have been learning how to collect organise and represent data in different ways.

Teacher: Before we start our final activities, let us reflect a bit on everything we have learned so far.

Teacher: I am going to ask you some questions about data and how we can use it in real life. Think about them carefully:

1. Imagine you want to know which fruit is the most

popular in your class. How would you collect that information?

2. If you were tracking the weather each day, how could a line graph help you understand temperature changes?
3. Think about your study habits. How can data help you see how much progress you are making over time?

Teacher: These questions help us realise how data is everywhere and can help us understand patterns, make decisions and improve ourselves. Let us continue with today's activities and apply what we have learned.

You may show the **Slideshow** given on the digital platform.

Worksheet 1

MUST DO 10 MIN.

Teacher: Open your books to page 50 and let us start with Worksheet 1.

Theme 9: Why Do We Look Ahead?

14. Data Handling

Worksheet 1

A. Which tally mark count represents the number 35? Tick (✓) the correct answer.

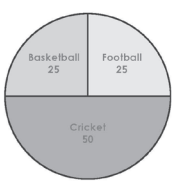
1. 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 ☐
2. 𝍸 𝍸 𝍸 𝍸 𝍸 ☐
3. 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 ☐
4. 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 ☐

B. Count the tally marks and write the number in the given boxes.

1. 𝍸 𝍸 𝍸 𝍸 ☐
2. 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 ☐
3. 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 ☐
4. 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 ☐
5. 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 ☐

C. During summer vacation, Bhola surveyed 100 students of his locality about their favourite sport. The data collected by Bhola is given below. Represent the data in fraction form.

Favourite sports	Number of students	Fraction
Cricket	50	
Football	25	
Basketball	25	



50

Teacher: Let us start with Exercise A. In this exercise, we need to match the tally marks with the correct number.

Teacher: Look carefully at the tally marks. Each group of five represents 5. Count the groups of 5 and then the remaining marks.

Teacher: I will give you a few moments to complete this. Once you are done, we will move to the next exercise.

Teacher: Now, let us move to Exercise B.

Teacher: In this part, you need to count the tally marks and write the numbers in the boxes.

Teacher: Remember, count the full groups of five and then the remaining marks.

Teacher: Take your time to solve this. Let me know if you need help.

Teacher: Now, let us move to Exercise C.

Teacher: Bhola surveyed 100 students about their favourite sport. We need to represent this data in fractions.

Teacher: Look at the table. 50 students like Cricket, so the fraction for Cricket is $\frac{1}{2}$.

Teacher: For Football and Basketball, there are 25 students each, so the fraction for both is $\frac{1}{4}$.

Teacher: Now, write the fractions for each sport in the table. You can also observe this data in a pie graph.

Worksheet 2

MUST DO 10 MIN.

Teacher: Please open your books to page 51 and find Worksheet 2.

Worksheet 2

Birju sells the following quantities of watermelons during a week.

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Quantity sold	35	20	55	45	30	60	70

Answer the following questions.

A. How many watermelons in total did he sell throughout the week? Tick (✓) the correct answer.

1. 310 ☐ 2. 315 ☐
3. 300 ☐ 4. 305 ☐

B. Which type of graph is the best method to represent the data? Tick (✓) the correct answer.

1. Bar graph ☐ 2. Line graph ☐
3. Circle graph ☐ 4. All of the above ☐

C. If a bar graph is drawn to represent the given data. Which of the following scales will represent the data better? Tick (✓) the correct answer.

1. 1 unit = 5 watermelons ☐
2. 1 unit = 100 watermelons ☐
3. 1 unit = 30 watermelons ☐
4. 1 unit = 50 watermelons ☐

51

Teacher: The question asks how many watermelons Birju sold in total throughout the week.

Teacher: We need to add up the number of watermelons sold each day.

Teacher: Now, tick the correct option on your worksheet.

Teacher: Take a moment to check your answer. Does everyone have the correct total?

Teacher: Let us move on to Exercise B.

Teacher: The question asks, 'Which type of graph is the best method to represent the data?'

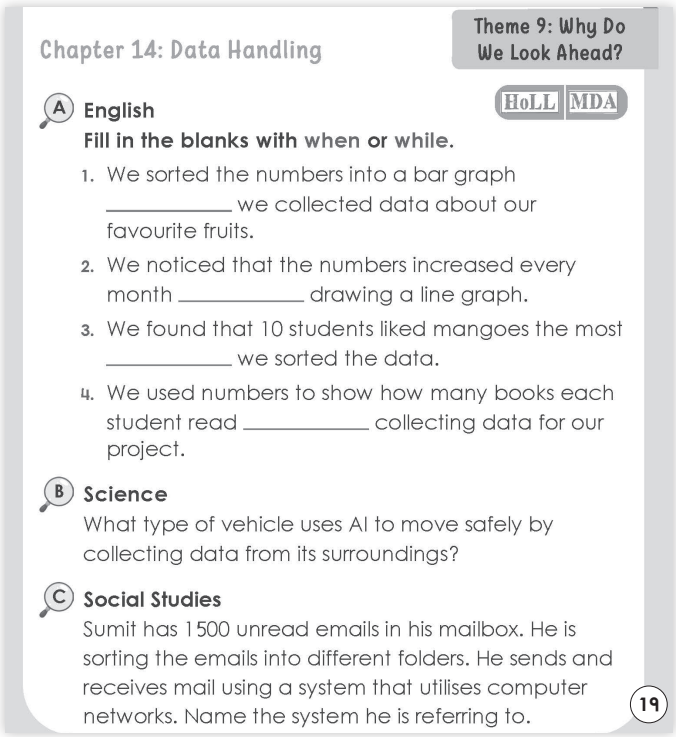
Teacher: Which graph would best show this data?

Teacher: Now, let us move on to Exercise C.

Teacher: In this question, we are asked to choose the best scale for the bar graph. Complete the worksheet. We will discuss the answers afterward.

You may generate additional practice worksheets using the **Test Generator** given on digital platform.

Book of Holistic Teaching



Chapter 14: Data Handling

Theme 9: Why Do We Look Ahead?

HoLL MDA

A English

Fill in the blanks with when or while.

1. We sorted the numbers into a bar graph _____ we collected data about our favourite fruits.
2. We noticed that the numbers increased every month _____ drawing a line graph.
3. We found that 10 students liked mangoes the most _____ we sorted the data.
4. We used numbers to show how many books each student read _____ collecting data for our project.

B Science

What type of vehicle uses AI to move safely by collecting data from its surroundings?

C Social Studies

Sumit has 1500 unread emails in his mailbox. He is sorting the emails into different folders. He sends and receives mail using a system that utilises computer networks. Name the system he is referring to.

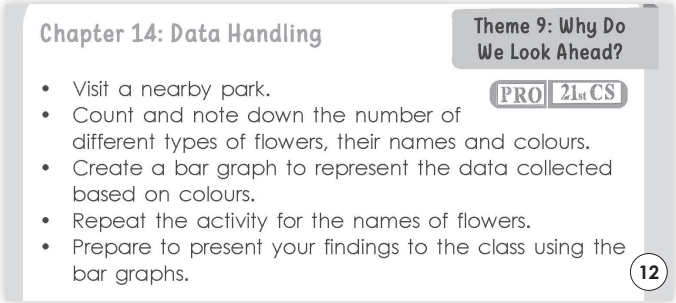
19

(Refer to the Book of Holistic Teaching, page 19 under the title 'Data Handling.' Complete the activities mentioned in this section and ensure that the students complete them. These activities are designed to enhance their holistic understanding and engagement with the topic. Provide any necessary support and materials to help the students successfully finish the activities.)

COULD DO

5 MIN.

Book of Project Ideas



Chapter 14: Data Handling

Theme 9: Why Do We Look Ahead?

PRO 21st CS

- Visit a nearby park.
- Count and note down the number of different types of flowers, their names and colours.
- Create a bar graph to represent the data collected based on colours.
- Repeat the activity for the names of flowers.
- Prepare to present your findings to the class using the bar graphs.

12

(Discuss the project assigned in the previous period, focusing on helping students understand the objectives and addressing any challenges they faced.)

COULD DO

5 MIN.

Teacher: Now, let us fill in the last column of the KWL chart.

Teacher: In this column we will write what we have learned in this chapter.

Teacher: Think about the topics we have learnt and write them in the 'L' column of the chart.

(Wait for students to fill in the chart.)

SHOULD DO

5 MIN.

Teacher: Let us all give a huge round of applause to everyone for their hard work and creativity. Great work, everyone. See you in the next class. Have a wonderful day ahead.

Differentiated Activities

110 km/hr

Survey the class on their favorite fruits. Categorize the data into the 6 categories mentioned above (Citrus, Tropical, Berries, Stone Fruits, Pomes, Other). Create a pie chart using coloured paper or cut-out circles to represent each category. Analyse which fruit category is most popular and write a brief report discussing the significance of this popularity in terms of health benefits or taste preferences.

80 km/hr

Survey the class and create a bar chart using coloured markers to represent the number of students who like each fruit. Discuss which fruit has the highest bar.

40 km/hr

Ask 4 students which fruit they prefer out of apples, bananas or oranges.

Use tally marks to record the data.

Home Task

Practise the questions discussed in this chapter.

Learning Outcomes

The students will:

Domain	Learning Outcome
Physical Development	• engage in activities that involve data collection, such as conducting surveys, where they will demonstrate their ability to gather and organise data physically.
Socio-Emotional and Ethical Development	• work in groups to gather, interpret and share data, promoting teamwork and communication skills.
Cognitive Development	• analyse data using various graphical representations, such as bar graphs and pie graphs and accurately interpret the data to answer related questions with a high level of precision.
Language and Literacy Development	• explain their understanding of data, using clear and concise language and will demonstrate the ability to articulate their findings and conclusions during class discussions and presentations.
Aesthetic and Cultural Development	• demonstrate the ability to create and interpret visual data representations, showing an understanding of how graphs and charts can be used to present information aesthetically and effectively.
Positive Learning Habits	• show initiative by independently collecting and recording data, following instructions with attention to detail and taking responsibility for their tasks in group activities.

Starry Knights

Did the learners enjoy the activities for Data Handling? Which activity is your favourite too?
Mention here.

Give yourself a STAR.