## Lesson-14: Measurement





15 Periods (40 minutes each)



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



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



## Curricular Goals and Objectives (NCF-FS)

#### To enable the students:

to understand and compare measurable attributes like length, weight and capacity.

SHOULD DO

5 MIN.

- to use non-standard and standard units to measure objects.
- to add and subtract measurements in real-life contexts.
- to estimate and check measurements using tools.
- to compare and represent measurements visually.
- to relate measurement to daily life experiences.
- to develop teamwork and responsibility through group tasks.

## Methodology

## Period 1

Teacher: Good morning students.

How are you?

Teacher: Today, we will begin a new chapter,

Measurement.

**Teacher**: Do you know what 'measurement' means?

Teacher: Yes, it is about finding out how long, tall, heavy

or light something is.

**Teacher**: Let us try something fun. I will show you a pen

and a notebook.

**Teacher**: Which one do you think is longer?

**Teacher**: Great. You are right. The notebook is longer than

the pen.

Teacher: Now look at this page and pencil. Which one is

heavier?

**Teacher**: Yes, the pencil is heavier. We will learn more

about it in following classes.



I stay active by playing outdoor games. PLH

**Teacher**: Everyone please open page 129 in the Main Coursebook. Let us start with the 'Affirming better' section. **Teacher**: Who will read and explain the affirmation given on this page?

Teacher: Yes, it says: I stay active by playing outdoor games.

**Teacher**: Why is it important to stay active?

**Teacher**: Yes, staying active keeps us healthy and strong. Teacher: Can you share your favourite outdoor game?

Teacher: Wonderful. Outdoor games are fun and keep

our body and mind fresh.

Teacher: Let us all say together: I stay active by playing

outdoor games.

Teacher: We will begin a new chapter, Measurement. I

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



К	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 move to 'Kinaesthetic' activity. Open page 129 in your Main Coursebook.



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Measure the length of your desk using your handspan. Then, measure the length of your pencil box. Compare the two lengths.

**Teacher**: Measure the length of your desk using your handspan.

**Teacher**: Now, measure the length of your pencil box using your handspan.

**Teacher**: Write both lengths in your notebook and compare them.

Teacher: Which one is longer? Which one is shorter?

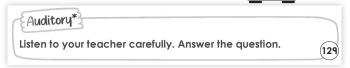
**Teacher**: Good work. You are using your hands to measure – that is non-standard measurement. Now, let us move to Auditory activity.

You may show the **eBook** given on the digital platform. (Use **CRM signs** to settle down the class.)

## **Auditory**

Teacher: Fatima goes to the zoo with her parents. She sees that the deer is taller than the rabbit.

She goes further and observes that the giraffe is taller than the deer.

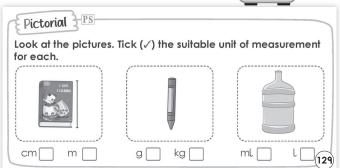


- 1. Which animal is the tallest?
- 2. Which animal is the shortest?

## Pictorial

**Teacher**: Look at the pictures of the book, pencil and water bottle.





**Teacher**: Tick the correct unit of measurement for each one.

**Teacher**: What should we use to measure the book – cm or m?

**Teacher**: Yes, cm. Now complete the remaining sums in the similar manner.

(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

Take one object from your class. Measure it using your handspan. Write its name and how many handspans long it is.

#### 80 km/hr

Choose any two objects from your bag. Lift them one by one. Which one feels heavier? Write their names.

#### 40 km/hr

Draw one object from your bag. Say whether it is long or short. Point to it and tell how you can measure it.

## Home Task

Choose one object at home like a door or a TV remote. Measure it using your handspan or fingers. Write its name and how long it is.

## Period 2

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



**Teacher**: In the previous period, we learnt how to measure objects using our handspan.

**Teacher**: Let us recall. What did you measure using your handspan at home?

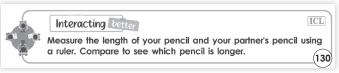
**Teacher**: Very good. Some of you measured spoons, books and TV remotes.

**Teacher**: Now, let us move on to using a proper tool for measurement – a ruler.

#### Interacting better

**Teacher**: Everyone, please open page 130 in the Main Coursebook. Let us read and understand 'Interacting better activity.





**Teacher**: Measure the length of your pencil using a ruler. **Teacher**: Now, ask your partner for their pencil and measure it too.



**Teacher**: Write the lengths in your notebook.

**Teacher**: Compare the two pencils. Whose pencil is

longer?

**Teacher**: Well done. Using a ruler gives us more accurate measurements.

**Teacher**: Let us now enjoy a story about how your friends used measurements in real life.





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

**Teacher**: Let us now read a story about two friends, Sam and Jas.

Teacher: Before we begin, tell me – do you like playing outdoors?

**Teacher**: Why is playing outside good for you?

Teacher: Yes, it gives us fresh air, makes us strong and keeps us happy.

Teacher: Today's story connects to SDG 3: Good Health and Well-being.

Teacher: It shows how playing outside and caring for plants help us stay healthy and happy.

Teacher: Open page 130 in your Main Coursebook.

Teacher: Read the story of Sam and Jas quietly. Look at

the pictures and read each dialogue.

Teacher: What were Sam and Jas doing first? **Teacher**: Yes, they were playing on the swing.

**Teacher**: What did Jas show to Sam? **Teacher**: A sapling she planted with Biji. **Teacher**: How did Jas know it had grown?

**Teacher**: She measured it with a ruler and said it was 9 cm

last week and 10 cm this week.

**Teacher**: So, how much did it grow in one week?

**Teacher**: Right, 1 cm.

**Teacher**: Why do you think she wrote it down?

**Teacher**: Yes, to keep a record.

Teacher: How is this story related to good health and well-

being?

Teacher: Correct. Playing outdoors and taking care of nature keeps us active, healthy and happy.

**Teacher**: This is how measurement helps us even in daily life. Now let us do an activity to practise measuring.

**Teacher**: Work in pairs. One partner will take out any object from their bag and the other will measure it using a ruler.



**Teacher**: Write the name of the object and its length in your notebook.

**Teacher**: Now switch roles and measure a second object.

**Teacher**: Compare both items. Which one is longer?

Teacher: This will help us learn to measure correctly and compare lengths.

### Differentiated Activities

#### 110 km/hr

Choose two objects from your bag. Measure both with a ruler and write which one is longer and by how many centimetres.

#### 80 km/hr



Measure your pencil and your ruler. Write their lengths of both objects and circle the longer one.

#### 40 km/hr



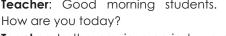
Draw your pencil in your notebook. Write how many centimetres long it is.

### Home Task

Find one object at home like a toothbrush or spoon. Measure it using a ruler. Write its name and how many centimetres long it is.

## Period 3

Teacher: Good morning students.





Teacher: In the previous period, we read a story about Sam and Jas and learnt how to use a ruler.

Teacher: Can you name one object you measured with a ruler?

Teacher: Very good. You measured pencils, erasers and even bags.

Teacher: Today, we will learn about standard units of measurement. Let us begin.

**Teacher**: Open page 131 in your Main Coursebook. Let us explore more about measuring length, centimetres and metres.

#### **Measuring Length**

Teacher: When we want to measure how long or tall something is, we measure its length or height.



(131)

#### MEASURING LENGTH

We use a ruler, measuring tape or metre rod to measure length, height and distance.

Centimetre and metre are the standard units of measuring length, height and distance.

Teacher: Some things are small and some are big. So, we use different tools and different units.

Teacher: Can anyone name a tool used to measure length?

**Teacher**: Yes, a ruler. Also, we can use a measuring tape or a metre rod.

#### Centimetre

Teacher: Let us talk about centimetres

first.



#### Centimetre

We measure short lengths, such as the length of a line segment, pencil, crayon or eraser, in centimetres. We use a ruler to

measure lengths in centimetres. We write centimetre as **cm**. The length of the pencil is 10cm.



**Teacher**: What kind of objects do you think we measure using centimetres?

**Teacher**: Yes, objects that are small like pencils, crayons or erasers.

**Teacher**: Look at your pencil. Do you think it is short or

long?

**Teacher**: Yes, it is short. That is why we measure it in centimetres.

Teacher: Centimetre is written as cm.

Teacher: Now check your ruler. Can you see numbers

written on it?

**Teacher**: Yes, each number shows 1 centimetre.

**Teacher**: Let us measure our pencils using our rulers.

**Teacher**: What is the length of your pencil in centimetres?

**Teacher**: Great. That means your pencil is about 10 cm long.

**Teacher**: So, we use centimetres to measure short lengths.

#### Metre

Teacher: Now let us learn about metre.

**MUST DO** 5 MIN

#### Metre

We measure long lengths, such as the length of a blackboard, table, room, carpet or wooden log in metres. We also measure the height of door, tree, building or big animals in metres.

We use a measuring tape or a metre rod to measure length in metres. We write metre as m.

Look at the metre

scale. There are 100 cm in 1 m.



So, we say 1 m = 100 cm.

Small distances within the same neighbourhood are also measured in metres. Large distances, such as the distance between (131)cities, are measured in kilometres. We write kilometre as km.

**Teacher**: Look at the blue scale shown in your book under

the heading 'Metre'.

**Teacher**: What kind of things are big and long?

Teacher: Yes, things like classroom walls, tables, carpets

**Teacher**: Can we measure a table using this small ruler?

Teacher: No. For big things, we use a metre scale or

measuring tape.

Teacher: Metre is written as 'm'.

**Teacher**: One metre is equal to 100 centimetres.

**Teacher**: Look at the blue metre scale on page 131. Can

you see it starts from 0 and ends at 100 cm? **Teacher**: That is why we say 1 m = 100 cm.

**Teacher**: So if we want to measure a blackboard or the

height of a door, what unit should we use?

**Teacher**: Correct, metre. Now let us do an activity.

You may show the Quick Maths given on the digital platform.

**Teacher**: Now let us do a small activity. I will name an object and vou tell me whether we should



measure it in cm or m.

Teacher: Let us start. A pencil?

**Teacher**: Yes, it should be measured in cm. Good thinking.

**Teacher**: Now, a room?

Teacher: Correct, it should be measured in meters

because it is big.

Teacher: What about your finger?

**Teacher**: Yes, it should be measured in cm.

Teacher: Very good. You are answering very quickly.

**Teacher**: Now, the height of a door?

**Teacher**: Yes, measured in meters. Well done.

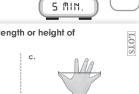
**Teacher**: The length of a notebook? **Teacher**: Correct, measured in cm.

**Teacher**: You all are doing an excellent job. Keep it up. Let

us move ahead.

Teacher: Let us solve an exercise to

practise this.



**MUST DO** 

1 Tick ( $\checkmark$ ) the standard unit to measure the length or height of the following. b

**Teacher**: Stay on page 131 and look at question 1.

**Teacher**: We need to tick the correct unit for each picture. **Teacher**: Look at picture (a). It shows a ladder. Should we

cm ( ) m ( )

measure it in cm or m?

(Guide the students to complete the activity.)

Teacher: Now, let us do an exciting estimation activity.

**Teacher**: Everyone, pick any one object near you – your pencil, notebook or water bottle.



**Teacher**: Without measuring, guess its length. How many centimeters do you think it is?

**Teacher**: Write your estimate on a rough sheet.

Teacher: Now, use your ruler to actually measure it and

write the real measurement.

**Teacher**: Compare your estimate and the actual

measurement. Was your guess close?

**Teacher**: Discuss with your partner how close or far your

estimation was.

Teacher: Well done, estimating helps sharpen our

measurement skills.

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

## **Differentiated Activities**

#### 110 km/hr



Draw two objects – one that we measure in cm and one in m. Write their names and units.

#### 80 km/hr

Look around the classroom. Write the name of one thing you can measure in metres and one you can measure in centimetres.

#### 40 km/hr



Tick the correct unit to measure these: door (cm/m), pencil (cm/m).

## Home Task

Look around your home. Find one object that is long and one that is short. Draw both and write which one you would measure in metres and which one in centimetres.

## Period 4

Teacher: Good morning students.

How are you today?



**Teacher**: In the previous period, we learnt about centimetres and metres.

**Teacher**: Can you tell me which unit we use for small things

like pencils?

**Teacher**: Yes, centimetres.

**Teacher**: And which unit for long things like classroom

doors?

Teacher: Correct, metres.

Teacher: Very good. Now let us learn how to add and

subtract lengths.

Teacher: Open page 132 in your Main Coursebook.

#### **Adding And Subtracting Lengths**

### **Adding lengths**

**Teacher**: Let us look at the first story.

Jas and her class are hanging a



#### ADDING AND SUBTRACTING LENGTHS

#### Adding lengths

On the World Water Day, the students in Jas' class are hanging a banner in the classroom. They have two pieces of ribbons. The lengths of the ribbons are 5 m and 7 m. Both ribbons are joined together at one end. Find the length of the joined ribbon.



So, the length of the joined ribbon is 12m.

To add the lengths, arrange the numbers in columns, according to their units.

Add 7cm and 5cm.		Add 50cm and 45cm.			Add 6m and 9m.			i	Add 32 m		m ar	nd			
		cm				cm				m				m	
		7				50				6				19	
	+	5			+	4 5			+	9			+	32	
_		12				9 5		-		15				5 1	132

**Teacher**: They have two pieces of ribbon – one is 5 m and the other is 7 m.

**Teacher**: When we join the two ribbons, what do we do with the lengths?

Teacher: Yes, we add them.

**Teacher**: So, 5 m + 7 m = how many metres?

**Teacher**: Correct, 12 m.

**Teacher:** This means the total length of the ribbon is 12 metres.

\_ .

**Teacher**: Now look at the pink and yellow boxes below. **Teacher**: The numbers are arranged in columns to help us

aaa.

**Teacher**: What do we get when we add 7 cm and 5 cm?

Teacher: Yes, 12 cm.

Teacher: What about 50 cm + 45 cm?

Teacher: Correct, 95 cm.

**Teacher**: Now try adding 6 m and 9 m. **Teacher**: Yes, 15 m. You all are doing well.

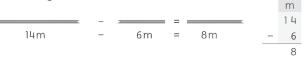
#### Subtracting lengths

**Teacher**: Now let us talk about subtracting lengths.



## Subtracting lengths

The students have another ribbon that is 14m long. They only need 6m. They cut 6m from the 14m ribbon. Find the length of the remaining ribbon.



So, the length of the remaining ribbon is 8 m.

To subtract the lengths, arrange the numbers in columns according to their units.



		Subtract from 90		Subtract 1 m from 4 m.			Subtract 24 m from 95 m.	
	cm		cm		m		m	
	13		90		4		95	
_	8	_	50	-	1	_	24	
	5	_	40		3		7 1	133

**Teacher**: Look at the next story. Jas has a ribbon that is 14

m long.

**Teacher**: She only needs 6 m. So she cuts 6 m from it. **Teacher**: What do we do here – add or subtract?

Teacher: Yes, subtract.

**Teacher:** So, 14 m - 6 m = how much?

**Teacher**: Correct, 8 m.

Teacher: When we subtract, we arrange numbers in

columns, just like we did while adding. **Teacher**: Let us solve a few together.

Teacher: Subtract 8 cm from 13 cm. What do we get?

Teacher: Yes, 5 cm.

Teacher: Subtract 1 m from 4 m.

Teacher: Correct, 3 m.

(Use CRM signs to settle the class.)

**Teacher**: Now let us do a pair activity.

**Teacher**: Partner A will pick two objects from your bag. Partner B will estimate their lengths and add them.



**Teacher**: Then, Partner B will pick one long object and Partner A will subtract a smaller object's length from it.

**Teacher**: Write your answers in your notebook and switch

roles.

**Teacher**: Use cm or m as needed.

Teacher: This will help you practise both addition and

subtraction of lengths.

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

### **Differentiated Activities**

#### 110 km/hr

•

Solve: A rope is 60 m long. 25 m is cut. What is the remaining length? Write your answer.

#### 80 km/hr



Add 9 m and 12 m. Subtract 7 m from 15 m.

#### 40 km/hr



Add: 6 m + 4 m. Subtract: 5 m - 2 m.

## Home Task

At home, measure the lengths of any two objects using a ruler or measuring tape. Add their lengths and write the total with the correct unit.

## Period 5

Teacher: Good morning students.

How are you today?



SHOULD DO

**Teacher**: In the previous period, we learnt how to add and subtract lengths of objects like 5 m + 7 m or 14 m – 6 m. **Teacher**: Can anyone remind me what do we do when

we join lengths of two objects?

Teacher: Yes, we add. And what do we do when we cut

a part from the length of an object?

**Teacher**: Correct, we subtract.

**Teacher**: Open page 133 in your Main Coursebook. Let us

practise more with some exercises.

**Teacher**: Let us solve Exercise 2. It is about adding two lengths.

cm



+ 42 + 39 + 47 + 17 + 13 (133)

m

**Teacher**: Look at question (a). What unit are we using

here?

**Teacher**: Yes, centimetres. Let us add 10 and 42. What do

we get?

2 Find the sum.

cm

Teacher: Correct, 52 cm.

**Teacher**: Now look at question (c). What unit is it?

**Teacher**: Yes, metres. Add 16 and 47. What is the answer?

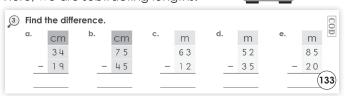
Teacher: Good, 63 m.

**Teacher**: Do the rest of the questions (b), (d) and (e) on your own. Remember to arrange the numbers correctly in columns.

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

MUST DO

**Teacher**: Now let us solve question 3. Here, we are subtracting lengths.



**Teacher**: Look at question (a). What is 34 cm – 19 cm?

Teacher: Yes, 15 cm.

Teacher: Now look at question (c). It is in metres. What is

63 m – 12 m?

Teacher: Good, 51 m.

**Teacher**: Complete questions (b), (d) and (e) by yourself.

Arrange numbers carefully before subtracting.

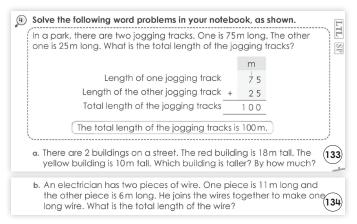
**Teacher**: Let us solve a real-life problem now in question 4.

**Teacher**: Read the problem. There are two jogging tracks – one is 75 m and the other is 25 m.



ID MIN





**Teacher**: What do we do to find the total length? **Teacher**: Yes, we add. What is 75 m + 25 m?

Teacher: Correct, 100 m.

Teacher: Now look at part (a). It talks about two buildings.

One is 18 m, the other is 10 m. **Teacher**: Which one is taller? Teacher: Yes, the red building.

Teacher: How much taller is the red building than the

COULD DO

yellow building? Teacher: Right, 8 m.

(1991) You may show the **I Explain** given on the digital

platform.

**Teacher**: Let us try a fun challenge. I will say two objects. You tell me the

5 MIN. total or the difference. Teacher: A table is 1 m tall. A chair is 0.5 m tall. Which one

is taller and by how much?

Teacher: Very good.

**Teacher**: A pencil is 15 cm long. A pen is 10 cm long. What

is their total length?

Teacher: Good thinking. Well done, everyone. Let us have a huge round of applause for our hard work today. See

you in the next class.

## **Differentiated Activities**

#### 110 km/hr

A wooden stick is 65 cm long and another stick is 42 cm long. Find the total length by adding both measurements.

#### 80 km/hr

A rope is 80 meters long. After cutting 35 meters from it, find the length of the rope that remains.

#### 40 km/hr

Draw a pencil and an eraser. Compare their lengths and put a tick mark on the longer object.

#### **Home Task**

With the help of an adult, use a measuring tape or a ruler to measure the height of your chair and your door. Write both measurements and find out which one is taller and by how much.

## Period 6

**Teacher**: Good morning students.

How are you today?

Teacher: In the previous period, we learned how to add and subtract

**Teacher**: Can anyone tell me what do we do when we join two ribbon pieces?

**Teacher**: Yes, we add their lengths.

**Teacher**: What if we cut some part out?

Teacher: Right, we subtract.

Teacher: Today, we will learn how to measure the weight

of objects.

Teacher: Open page 134 in your Main Coursebook.

#### Measuring Weight

Teacher: Look at the picture of the balance and weights on the top of the page.

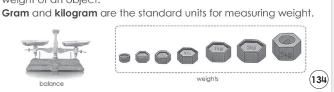


SHOULD DO

5 MIN.

#### **MEASURING WEIGHT**

We sometimes use a balance and weights to measure the weight of an object.



**Teacher**: We use a balance to find out how heavy something is.

**Teacher**: What do we use with the balance to measure weight?

Teacher: Yes, we use weights.

**Teacher**: The standard units to measure weight are gram

and kilogram.

**Teacher**: We write gram as g and kilogram as kg. **Teacher**: Now let us understand when to use each. ( You may show the **Explainer Video** given on the

digital platform.

#### Gram

Teacher: Look at the packets shown in the middle of the page.



(134)

#### Gram

We measure light weights, such as biscuits, spices and nuts in grams. We write gram as g.



**Teacher**: We use grams to measure light objects like biscuits, spices and nuts.

Teacher: A biscuit packet might weigh 100 g. A peanut packet may be 500 g.

**Teacher**: So, for small and light items, we use grams.



#### Kilogram

**Teacher**: Now let us move to kilograms.

Teacher: Look at the grapes, watermelon and atta packet.





Look at the balance. Two 500 g weights are equal to 1 kg weight.

500g + 500g = 1000g

This means there are 1000g in 1kg.

So, we say 1 kg = 1000 g.

**Teacher**: Do these look heavy or light?

Teacher: Yes, heavy.

**Teacher**: We measure these using kilograms.

Teacher: We write kilogram as kg.

**Teacher**: 1 kg is used for grapes, 2 kg for watermelon and

5 kg for a bag of atta.

**Teacher**: So for big and heavy things, we use kilograms.

Teacher: Now we will do a fun observation activity to check your understanding of grams and



kilograms.

Teacher: I will say the name of an object and you have to think and tell whether we would measure it in grams or kilograms.

Teacher: Let us start with a packet of chips. It is light and easy to carry. Should we measure it in grams or kilograms?

**Teacher**: Yes, grams. It is a light item, so we use g.

**Teacher**: Now think about a big bag of rice. It is heavy and used in cooking for many days. Which unit will we use here?

**Teacher**: Correct, kilograms. A big rice bag is measured in kg because it is heavy.

Teacher: What about a chocolate bar you buy from a shop? It is small and light. What do we use to measure its weight?

**Teacher**: Yes, that is right. We use grams.

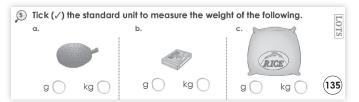
Teacher: Last one. Imagine you are holding a large watermelon. It is quite heavy. What should we use to measure it grams or kilograms?

**Teacher**: Kilograms is the correct answer.

**Teacher**: Very good. You are learning how to choose the correct unit of weight based on how light or heavy the object is. Keep it up.

**Teacher**: Let us now practise what we have learnt by solving Exercise 5.





Teacher: Open your Main Coursebook to page 135 and look at the pictures in question 5.

Teacher: In the first picture, we can see a jackfruit. Jackfruit is large and heavy.

Teacher: Should we measure its weight in grams or kilograms?

**Teacher**: Yes, kilograms. It is a heavy fruit, so we use kg. (Continue the discussion in the similar manner.)

**Teacher**: Excellent work. Now tick the correct unit for each object in your book. Let me know if you need help.

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

## **Differentiated Activities**

#### 110 km/hr

Choose three items you saw in the kitchen or classroom. Write their names and decide whether each should be measured in grams or kilograms.

#### 80 km/hr

Look around your classroom, write the name of one item that would be measured in grams and one that would be measured in kilograms.

#### 40 km/hr

Look around your classroom or think of your lunchbox. Write the name of one item that would be measured in grams and one that would be measured in kilograms.

#### Home Task

With the help of an adult, check the weight written on any five packets at home. Write their names and whether they are measured in grams or kilograms.

## Period 7

Teacher: Good morning students. SHOULD DO

How are you today? Teacher: In the last class, we learned



how to identify if an object's weight should be measured in grams or kilograms.

**Teacher**: Who can tell me whether a watermelon is measured in grams or kilograms?

**Teacher**: Yes, kilograms.

**Teacher**: And what about a packet of biscuits?

Teacher: Right, grams.

Teacher: Today, we will learn how to add and subtract weights using grams and kilograms.

#### **Adding And Subtracting Weights**

Teacher: Open page 135 in your Main Coursebook.



(135)

**ADDING AND SUBTRACTING WEIGHTS** 

Sam and Lina buy some vegetables to make salad for a food fair. The money from the fair will be spent on planting trees.

**Teacher:** Look at the heading 'Adding and Subtracting

Weights'.

Teacher: Sam and Lina are buying vegetables for a food fair. They will add and subtract the weights of different

**Teacher**: Let us understand this through their examples.

#### **Adding Weights**

**Teacher**: Look at the pink box about Sam's vegetables. He bought 550 g of



radishes and 200 g of onions.

Adding weights Sam buys 550 g of radishes and 200 g of onions. Find the total weight of the vegetables. Sam's vegetables weigh 750 g.	weight of radishes weight of onions + total weight	2	g 50 00		
Lina buys 4kg of cucumbers and 3kg of tomatoes. Find the total weight of the vegetables. Lina's vegetables weigh 7kg.	weight of cucumbers weight of tomatoes total weight	+	kg 4 3		
Lina and Sam buy 7kg and 750g vegetables together.					

**Teacher**: What should we do to find the total weight?

**Teacher**: Yes, we add them. **Teacher**: What is 550 g + 200 g?

Teacher: Correct, 750 g. So, Sam's vegetables weigh

750 g.

**Teacher**: Now look at Lina's vegetables. She bought 4 kg

of cucumbers and 3 kg of tomatoes.

**Teacher**: What is 4 kg + 3 kg?

Teacher: Yes, 7 kg.

**Teacher**: Great. This is how we add weights in both grams

and kilograms.

( You may show the **Infograpic** given on the digital platform.

#### **Subtracting Weights**

Teacher: Now let us learn how to

subtract weights.

**Teacher**: Read the first story in the pink

box. Lina had 900 g of spinach and used 650 g.

**Teacher**: What is the weight left?

Subtracting weights Lina's mother gives them some spinach and cabbage for the salad.



They had 900 a of spinach. They used g 650g of spinach. How much spinach spinach they had ЯØО is left? spinach they used -650 250 g of spinach is left. spinach left 250 They had 2kg of cabbage. They kg used 1 kg of cabbage. How much cabbage they had 2 cabbage is left? cabbage they used 1 kg of cabbage is left. cabbage left 1(136)

**Teacher**: Yes, 900 g - 650 g = 250 g.

**Teacher**: Now look at the cabbage example. She had 2 kg and used 1 kg.

**Teacher**: What is the remaining weight?

Teacher: Correct, 1 kg.

Teacher: When we subtract weights, we always arrange

numbers in columns, just like we do

with length.

**Teacher**: Let us now solve Exercise 6 on page 135.



6	Find t	he sum								
))	a.	g	b.	g	c.	kg	d.	kg	e.	kg
		365		646		42		45		5 8
	+	123	+	251	+	5 6	+	19	+	136

**Teacher**: We will do only questions (a), (b) and (c)

**Teacher**: Question (a) shows 365 g and 123 g. Add them.

**Teacher**: What is the total?

Teacher: Yes, 488 a.

**Teacher**: Now look at question (b). What is 646 g + 251 g?

**Teacher**: That makes 897 g.

**Teacher**: Question (c) is in kilograms. Add 42 kg and 56 kg.

**Teacher**: That gives us 98 kg.

Teacher: Well done. The remaining questions are for

homework.

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

## **Differentiated Activities**

#### 110 km/hr

Take any two items from your bag. Hold one in each hand and feel which is heavier. Write their names and tick the heavier one.

#### 80 km/hr

Choose one item from your bag. Now compare its weight by holding it against your water bottle. Which one feels heavier? Draw and label both.

#### 40 km/hr

Pick any item from your bag. Hold it and say whether it feels light or heavy. Draw the item and write 'light' or 'heavy' below it.

(135)

## Home Task

Complete question (d) and (e) of Exercise 6 in your Main Coursebook. Show your working clearly in your notebook.

## Period 8

**Teacher**: Good morning students.

How are you today?



**Teacher**: In the last class, we added weights of objects in

grams and kilograms.

Teacher: Who can tell me what 550 g and 200 g together

become?

Teacher: Yes, 750 g.

**Teacher**: Today, we will practise subtracting weights and

solving real-life word problems.

**Teacher**: Open page 136 in your Main

Coursebook.



**Teacher**: Let us look at Exercise 7. This time, we are subtracting weights.



**Teacher**: Look at question (a): 489 g – 215 g. Let us solve

it together.

**Teacher**: What is the difference?

Teacher: Yes, 274 g.

**Teacher**: Now look at question (c): 46 kg – 14 kg. What do

we get?

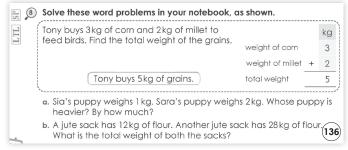
Teacher: Correct, 32 kg.

Teacher: Now complete the remaining questions (b), (d) and (e) on your own. Arrange the numbers correctly

before you subtract.

**Teacher**: Now turn to Exercise 8. This has word problems based on weights.





**Teacher**: Let us look at the example. Tony buys 3 kg of

corn and 2 kg of millet.

**Teacher**: What is the total weight of the grains?

**Teacher**: Yes, 5 kg.

**Teacher**: Now read question (a). Sia's puppy weighs 1 kg

and Sara's weighs 2 kg.

**Teacher**: Whose puppy is heavier?

Teacher: Correct, Sara's.

Teacher: How much heavier Sara's puppy than Sia's

puppy?

**Teacher**: Yes, 1 kg heavier.

Teacher: Now let us look at question (b). One sack weighs

12 kg and another 28 kg.

**Teacher**: What is the total weight of both sacks?

Teacher: Correct, 40 kg.

Teacher: Great work. You all are becoming smart with

weights.

**Teacher**: Let us do a partner activity.

Teacher: Each of you will estimate the weight of one object in your bag.



Teacher: Then, exchange the object with your partner and estimate their object's weight too.

**Teacher**: Write both estimated weights and find the total.

Teacher: This will help you practise mental addition and thinking about grams or kilograms.

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

## **Differentiated Activities**

### 110 km/hr

Think of three real-life items that have different weights. Estimate their weights and write a short word problem using those items. Solve your own problem.

#### 80 km/hr

Pick two classroom objects that feel clearly different in weight. Estimate or measure their weights. Write a sentence comparing which is heavier and by how much.

#### 40 km/hr

Choose two items from your bag that feel different in weight. Draw them and write which one is heavier.

#### Home Task

With the help of an adult, choose any two items at home. Find their weights. Add or subtract the weights and write your own word problem using these items. Solve it in your notebook.

## Period 9

Teacher: Good morning students. I hope you all are doing well today.



Teacher: In the previous class, we

learned about weights using grams and kilograms. We also solved word problems related to vegetables and sacks.

**Teacher**: Today, we will move ahead and explore something you see every day—water bottles, buckets and juice boxes.



Teacher: Let us play a quick game. I will name some containers and you tell me whether they hold a small or large amount of liquid.

Teacher: A bottle of medicine—does it hold a small or large amount?

**Teacher**: Yes, a small amount.

**Teacher**: What about a water tank at home? **Teacher**: Correct, that holds a large amount.

**Teacher**: A juice box? Teacher: Small.

**Teacher**: A bucket used for bathing?

Teacher: Large.

Teacher: Excellent. Today, we will learn how to measure the capacity of these containers using litres and millilitres.

**Teacher**: Open page 137 in your Main Coursebook.

#### **Measuring Capacity**

Teacher: The amount of liquid a container can hold is known as its capacity.



#### MEASURING CAPACITY

The amount of liquid a container can hold is called capacity. We use a measuring jar to measure the capacity of a container. Millilitre and litre are the standard units for measuring capacity. (137)

Teacher: Just like we measure weight using g and kg, we measure capacity using millilitres and litres.

**Teacher:** Millilitres and litres are the standard units of capacity.

Teacher: A measuring jar is often used in kitchens or hospitals to know how much liquid we are pouring.

**Teacher**: Let us understand how to use these two units by looking at examples from our daily life

## Millilitre

Teacher: First, let us understand millilitre, which we write as ml.



## Millilitre

We measure the capacity of small containers such as a cup, mug or bottle, in millilitres. We write millilitre as **ml**.







Teacher: Imagine your medicine bottle, a small paint bottle or a cup of juice. These hold only a little liquid.

**Teacher**: So, we use ml to measure such small amounts. **Teacher**: If you drink one small cup of juice in the morning,

it might be around 200 ml. A spoon of cough syrup may be just 5 ml.

**Teacher**: So when the quantity is less, we use millilitres.

Litres

Teacher: Now let us talk about litres, written as l.

5 MIN

**MUST DO** 



Teacher: Larger containers like buckets, oil cans, milk cans and water tanks hold much more liquid.

say 1l = 1000 ml.

**Teacher**: For example, a bucket used at home for bathing may hold 20 l of water.

**Teacher**: A can of cooking oil from the store may say 5 l on its label.

**Teacher**: So whenever we see or use a big container that holds more, we measure its capacity in litres.

Teacher: Let us now connect what SHOULD DO we have learnt to real life.

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**Teacher**: In pairs, think of five things you have used or seen at home that hold liquids, like water bottles, cups, mugs, buckets or tanks.

**Teacher**: If the container is small like a cup or bottle, we measure it in ml.

Teacher: If the container is big like a bucket or tank, we measure it in L.

Teacher: Write the names and the correct unit next to

**Teacher**: Discuss with your partner and check if you agree.

**Teacher**: Now let us solve Exercise 9 on page 137.

**Teacher**: Look at picture (a). This is a juice box. Do you think we will use ml or l?





**Teacher**: Yes, ml. It holds a small amount of juice.

**Teacher**: Now picture (b) shows a bucket. It holds a lot of water. Which unit should we use here?

Teacher: Correct, L.

**Teacher**: Lastly, picture (c) is a glass of water. It is small. So,

**Teacher**: Tick the correct answers in your book.

**Teacher**: Well done, everyone. I liked how you connected today's learning with your everyday use of bottles and buckets.

Teacher: Let us have a big round of applause for your efforts. See you in the next class.

## **Differentiated Activities**

#### 110 km/hr

Think of three containers from your home that hold water, juice or milk. Write their names and estimate their capacities in ml or l. Add their capacities to find the total.

#### 80 km/hr

Choose one small container (like a cup) and one big container (like a bucket). Estimate how much each holds. Then, add the capacities to find the total.

#### 40 km/hr

Draw a picture of one small container and one large container. Write ml next to the small one and l next to the large one.

## Home Task

With the help of an adult, find two containers at home—such as a bottle, jug, bucket or mug. Try pouring water from one into the other. Observe and write which container holds more and which one holds less. Write your answer using ml or l.

## Period 10

**Teacher**: Good morning students.

How are you feeling today?

**Teacher**: Yesterday, we explored the idea of capacity. Can someone remind us what unit we use for a small container, like a cup or a glass?

Teacher: Yes, millilitre or ml.

**Teacher**: And for big containers like a water tank?

**Teacher**: Correct, litre or l.

**Teacher**: Now think—if your mother uses two small bowls of water to wash vegetables, how will you find out the total amount of water used?

**Teacher**: That is right. You add both quantities. Today we will learn how to add and subtract these quantities using  $\mathsf{ml}$  and  $\mathsf{l}$ .

#### **Adding and Subtracting Capacity**

**Teacher**: Let us begin with a story from your book. Jas's house gets 500 L of water supply every day. His parents, Zara and Tony, use this water wisely.



(138)

SHOULD DO

5 MIN.

## ADDING AND SUBTRACTING CAPACITIES

Jas's house gets  $500\,\mathrm{L}$  of water supply every day. His parents, Zara and Tony, use this water carefully.

**Teacher**: Now if we know how much water each person uses, we can add to find the total used.

**Teacher**: And if we know how much water they used and how much they got, we can subtract to find how much water is left

**Teacher**: This is called adding and subtracting capacities.

#### Adding different capacities

**Teacher**: Let us look at the example of Zara. She uses 650 mL of water to clean vegetables and 300 mL for



Adding different capacities Zara uses 650 ml of water for clea vegetables. She uses 300 ml wate for cooking them. How much wat does she use? Zara uses 950 ml of water.	r cleaning vegetables	ml 650 300 950
Tony uses 75L of water for moppin and watering the plants. He uses 120L of water for washing clothes. How much water does he use? Tony uses 195L of water.	watering the plants + mopping washing clothes + total quantity of water used	l 75 120

**Teacher**: What should we do to find the total amount of water she used?

**Teacher**: Yes, we add. 650 + 300 = 950 ml.

**Teacher**: Now let us look at Tony. He uses 75 L for mopping

and 120 l for washing clothes.

**Teacher**: What is the total quantity of water he used?

**Teacher**: Yes, 75 + 120 = 195 l.

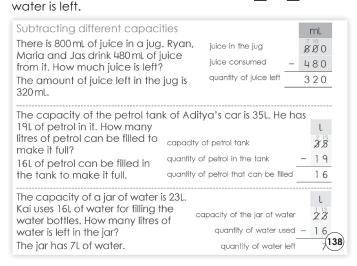
Teacher: These are real-life ways to understand how we

add capacities in both ml and l.

#### Subtracting different capacities

**Teacher**: Now let us see what happens when we want to find out how much





**Teacher**: In the first example, there is 800 ml of juice in a jug. After some students drink 480 ml, how much is left?

**Teacher**: Yes, 800 - 480 = 320 mL of juice is left.

**Teacher**: Next example—Aditya's petrol tank can hold 35

l and it already has 19 l in it.

**Teacher**: How much more petrol can be filled? **Teacher**: Yes, 35 – 19 = 16 L can still be filled.

**Teacher**: Let us look at one more. A jar holds 23 L of water.

Kai uses 16 l.

**Teacher**: How much is left?

**Teacher**: Yes, 23 - 16 = 7 l. Well done.

Teacher: Let us now try Exercise 10 on page 138.

**Teacher**: We will solve the first question together and then you will solve the next two on your own.





**Teacher**: Look at question (a). It says 368 ml + 111 ml.

**Teacher**: First, we write the numbers in columns:

Teacher: 368 on top and 111 just below it.

**Teacher**: Now, start adding from the rightmost digit—8

plus 1 is 9.

**Teacher**: Next, 6 plus 1 is 7. Then 3 plus 1 is 4.

Teacher: So, the answer is 479 ml.

**Teacher**: Now it is your turn.

**Teacher**: Solve questions (b) and (c) independently in your notebooks.

**Teacher**: Remember to line up the digits correctly and write the unit (ml or l).

**Teacher**: I will come around to check your work. Raise your hand if you need help.

**Teacher**: Great work today, everyone. You added and subtracted capacities like experts.

**Teacher**: Let us give ourselves a big round of applause for this effort. See you in the next class.

#### **Differentiated Activities**

#### 110 km/hr

Create your own water usage table. Choose three tasks like drinking water, watering plants and mopping. Estimate the amount of water used for each in litres or millilitres. Then, find the total water used by adding all three amounts.

## 80 km/hr

Use empty bottles or containers available in class. Write down estimated capacities for three of them in ml or l. Then, add all three values to find the total capacity of the containers.

#### 40 km/hr

Colour and label two containers, one small and one large. Under the small container, write ml. Under the large container, write L. Then, draw a line to match each container to an activity like 'drinking juice' or 'filling a bucket'.

#### **Home Task**

Complete questions (d) and (e) of Exercise 10 given on page 138 in the Main Coursebook.

## Period 11

**Teacher**: Good morning students.

How are you feeling today?



Teacher: In the last class, we learnt

how to add and subtract capacities using litres and millilitres.

**Teacher**: Can someone remind me—what unit do we use to measure water in a small bottle?

**Teacher**: Yes, we use millilitres. **Teacher**: And for a water tank?

Teacher: Correct, litres.

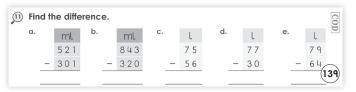
Teacher: Now let us practise how we subtract capacities

and solve word problems based on real life.

**Teacher**: Open your Main Coursebook to page 139.

**Teacher**: Let us look at Exercise 11. These questions ask us to find the difference. That means we need to subtract.





**Teacher**: Let us solve question (a) together. It shows 521 ml – 301 ml.

**Teacher**: First, write the numbers in columns. Start subtracting from the right.

**Teacher**: 1 from 1 is 0. 2 from 0 is not possible, so we borrow.

Then, 12 - 1 = 1 and 4 - 3 = 2. **Teacher**: The answer is 220 ml.

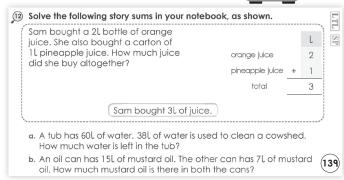
Teacher: Now, I want you to solve questions (b), (c), (d)

and (e) in pairs.

**Teacher**: Write your answers in your book. You may discuss with your partner but solve it in your own book.

**Teacher**: Now let us move to Exercise 12 on the same page. These are story sums.





**Teacher**: We will solve the example given in the book first. **Teacher**: Sam bought a 2 L bottle of orange juice and a 1 L carton of pineapple juice.

**Teacher**: How much juice did she buy altogether?

Teacher: Yes, 2 + 1 = 3 l.

Teacher : For the remaining two questions (a and b), I want

you to work independently.

**Teacher**: Read each story carefully. Underline the numbers. Decide whether you have to add or subtract.

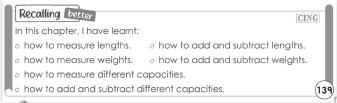
**Teacher**: Then solve it in your notebook. If you finish early, check your partner's answer.

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

## Recalling better

**Teacher**: Let us move to the 'Recalling better' section on page 139.





**Teacher**: I will ask you some quick questions from this chapter to check how much you remember.

**Teacher**: Who can tell me what unit we use to measure

the length of a pencil?

**Teacher**: Correct, centimetres.

Teacher: What do we use to measure how heavy a

watermelon is?

Teacher: Yes, kilograms.

**Teacher**: Which tools help us measure weight? **Teacher**: Good, balance and weighing machine.

Teacher: If you want to know how much water is in a mug,

which unit will you use?

**Teacher**: That is right, millilitres.

**Teacher**: You all have learnt a lot. Now, take 3 minutes to read the list on page 139 and tick all the topics you feel confident about.

**Teacher**: Well done, everyone. You all remembered and applied what you learnt about measurement.

**Teacher**: Let us give ourselves a big round of applause for completing this topic with focus and enthusiasm.

#### **Differentiated Activities**

#### 110 km/hr

Create your own story problem using litres or millilitres. Solve it and swap it with a classmate. Solve your friend's story sum and check each other's answers.

#### 80 km/hr

Think of two activities at home where water is used, like washing vegetables and cleaning the floor. Estimate how much water is used in each using litres or millilitres. Then, add the two quantities to find the total water used. Write your answer with the correct unit.

#### 40 km/hr

Draw a container that holds juice and write how much it holds using ml or l. Then draw a smaller container and write its quantity. Subtract to find how much more the bigger one holds.

## Home Task

Ask a family member how much milk or water is used at home in one day. Write the quantity and whether it is measured in mL or L. Also write five sentences on why it is important to use water wisely.

## Period 12

Teacher: Good morning students. SHOULD DO
How are you all feeling today?

5 MIN.



Teacher: Let us begin with a quick

quiz called 'Guess the Measurement'. I will ask about things around us and you have to tell which unit we should use – cm, m, g, kg, ml or l.

**Teacher**: What unit would you use to measure the length of a pencil?

Teacher: Yes, centimetres.

**Teacher**: What unit would you use to measure the height

of the school building? **Teacher**: Correct, metres.

**Teacher**: What is the best unit to measure a watermelon?

Teacher: Well done, kilograms.

Teacher: What would you use to measure the water in

your tiffin bottle? **Teacher**: Yes, millilitres.

**Teacher**: And the water in a big water tank?

Teacher: That is right, litres.

**Teacher:** Excellent. These units help us make correct measurements every day. Let us now start our lesson by practising questions. Everyone please open page 140 in the Main Coursebook.

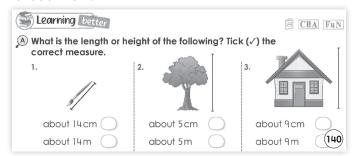
You may show the **Slideshow** given on the digital platform.

### Learning better



**Teacher**: Let us now move to Exercise A on page 140.

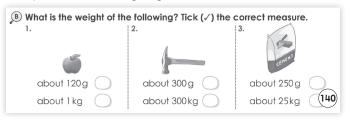
**Teacher**: Work in pairs to tick the correct length or height for each item.



**Teacher**: Discuss with your partner whether the object should be measured in cm or m.

**Teacher**: Now let us do Exercise B. This time, I will read aloud each object and you will vote using fingers.





**Teacher**: If you think the correct answer is the first option, show one finger. If it is the second, show two fingers.

**Teacher**: For example, for the apple – about 120 g or 1 kg? Show your fingers.

**Teacher**: Yes, 120 g is correct. Keep going for the next two items. Mark your answer in the book.

**Teacher**: Now open Exercise C in your book. We will solve the first question together.



© Find the sum.				
1. cm	2. cm	3. m	4. m	5. m
13	40	21	34	67
+ 19	+ 42	+ 64	+ 26	+ 25
6. g	7. g	8. kg	9. kg	10. kg
155	610	26	42	57
+ 75	+ 342	+ 48	+ 21	+ 34
11. ml 200 + 205	12. ml 255 + 124	13.   L   19   + 61	14. l 26 + 41	15. L 56 + 140

**Teacher**: 13 cm + 19 cm equals 32 cm. That is correct. Well done.

**Teacher**: Now, I will divide you into small groups. Each group will work together to solve all the questions from 1 to 15.

**Teacher**: Discuss each question with your group members and solve them in your notebook. Make sure everyone understands before moving to the next one.

**Teacher:** After solving all questions, each group will swap notebooks with another group and check the answers. Discuss any differences and help each other correct the answers.

**Teacher**: Let us start. Work as a team and support one another.

#### **Meditation**

**Teacher**: Let us now take a few minutes to calm our minds and relax our bodies. Sit comfortably and close your eyes.



**Teacher**: Imagine you are sitting under a big shady tree in a quiet garden. You can hear the birds singing and the leaves rustling in the breeze.

**Teacher**: A cool wind touches your face and makes you feel peaceful. You see flowers blooming gently and butterflies flying around.

**Teacher**: Take a deep breath in... and slowly breathe out. Feel your body becoming light and still, just like the air around you.

**Teacher**: Let go of all worries and enjoy this calm moment with nature.

**Teacher**: Now, slowly open your eyes. Smile gently and feel fresh and peaceful.

**Teacher**: This brings us to the end of our class. Let us meet again in the next period.

## **Differentiated Activities**

#### 110 km/hr

Find three items in the classroom and write their estimated length, weight or capacity with correct units. Then, form one addition sum and one subtraction sum using those estimates.

## 80 km/hr

Draw two items from your school bag. Estimate their measurement using cm, g or ml. Write one sentence about what you would use to measure each.

#### 40 km/hr

Draw two different objects from your school bag. For each, write its estimated measurement – either in cm, g or ml depending on what suits best. Add the two numbers and write the total with correct units.

## Home Task

At home, find two things your family uses daily – like a packet of sugar or a water jug. Ask an adult how much they weigh or hold. Write the item name and its measurement in the correct unit.

## Period 13

**Teacher**: Good morning students. How are you all feeling today?



**Teacher**: Today, we will begin with a short question-answer warm-up. Be ready to think and respond.

**Teacher**: If there is 1 litre of milk in a jug and you drink 250 millilitres, how much milk is left in the jug?

**Teacher**: Yes, you subtract 250 millilitres from 1 litre to find what is left.

**Teacher**: You pour 500 millilitres of water from one bottle and 300 millilitres from another into a jug. What will you do to find the total amount of water in the jug?

**Teacher**: Correct, we add both quantities.

**Teacher:** If a container can hold 2 litres of juice and you have already poured 1 litre in it, how much more can it hold?

Teacher: Yes, 1 litre more.

**Teacher**: You used 1 litre of water to mop the floor and 2 litres to wash vegetables. What is the total amount of water used?

**Teacher**: That is right. You add both values to get the total. **Teacher**: A measuring cup has 800 millilitres of milk. If 300 millilitres is used for cooking, how much milk remains?

**Teacher**: Yes, we subtract 300 millilitres from 800 millilitres. Very well done.

**Teacher**: Excellent answers, everyone. Let us now begin our exercises for today.

**Teacher**: Please open your workbook to page 140 and look at Exercise D.



D Find the difference.									
1. cm	2. cm	3. m	4. m	5. m					
39	48	63	78	73					
- 16	- 23	- 14	- 36	– 57					
6. g	7. g	8. kg	9. kg	10. kg					
552	697	95	87	40					
- 418	- 552	- 48	- 61	– 21					
11. ml 415 - 269	12. ml 597 - 220	13. L 75 - 48	14. L 76 – 15	15. [ 53 - 39 - 141					

**Teacher**: Let us solve the first question together.

**Teacher**: 39 cm - 16 cm = 23 cm.

**Teacher**: Very well done. You subtracted the numbers correctly

**Teacher**: Now work with your partner. Sit in pairs and solve all the remaining questions in Exercise D.

**Teacher**: After 15 minutes, we will review the answers together. Start now.

**Teacher:** Now, let us move to Exercise E. Please open your books to the page with the word problems.



#### © Solve the following story sums in your notebook, as shown.

- 1. The height of a banyan tree is 12m and that of a mango tree is 11m. Out of the two trees, which one is taller? By how much?
- 2. There are two tables. The lengths of the tables are  $2\,\mathrm{m}$  and  $1\,\mathrm{m}$ . Find the total length if we put them together.
- 3. A shopkeeper has 35kg of rice and 20kg of sugar. Which is lighter and by how much?
- 4. The weight of a box is 2 kg. It contains 5 kg of flour. What is the total weight of the box with flour?
- 5. A cow gave 17l of milk on Sunday. It gave 23l of milk on Mondo.

  How much milk did it give altogether?

**Teacher**: These are real-life story sums based on what we have learnt about length, weight and capacity.

**Teacher**: Let us read the first question together: The height of a banyan tree is 12 metres and the height of a mango tree is 11 metres. Out of the two, which one is taller? By how much?

**Teacher**: What do you think we are being asked to find here?

**Teacher**: Yes, we are comparing the two heights and need to subtract the smaller from the bigger.

Teacher: For each question, identify two things -

- 1. What do you already know? (Given data)
- 2. What do you need to find out? (Required answer)

**Teacher**: Solve all 5 questions independently in your notebooks. Take your time and think carefully.

**Teacher**: Remember to underline the key numbers and write your steps neatly.

**Teacher**: If you complete all five early, quietly check your answers with your partner. Discuss and see if your methods are correct.

**Teacher**: If you find any differences, talk to your partner and explain how you got your answer.

**Teacher**: Let us begin now. I will walk around to help if needed.

(III) You may show the **Quiz** given on the digital platform.

## **Differentiated Activities**

#### 110 km/hr

Create your own word problem using any two measures from this chapter (length, weight or capacity). Solve it in your notebook and exchange it with a partner to solve.

#### 80 km/hr

Solve the following questions:

A watermelon weighs 8 kg. A bag of rice weighs 5 kg. How much heavier is the watermelon?

A tree is 15 m tall and a pole is 9 m tall. How much taller is the tree?

## 40 km/hr

Take two classroom objects like a bottle and a cup. Guess which one can hold more water and which one can hold less. Write the names of both objects and label them as 'more' or 'less'.

#### Home Task

With the help of an adult, look at the water bill at your home. Note how many litres of water were used. Also, find one more item at home that shows its measurement (like a 1  $\iota$  oil bottle or 5 kg rice bag). Write the item name and the unit.

Bring your 'Little Book' for 'Revising better' activity.

## Period 14

**Teacher**: Good morning students. How are you all feeling today?



**Teacher**: In the previous period, your home task was to observe your home's water usage and ask an adult if you have a water bill. Raise your hand if you were able to complete it.

**Teacher**: Wonderful. Can anyone share where the most water was used at home?

**Teacher**: Yes, in the kitchen. That is correct. Water is used for cooking and washing.



**Teacher**: What about the bathroom?

**Teacher**: Right, a lot of water is used while bathing and

cleaning.

**Teacher**: Did anyone notice how much water is mentioned on the bill?

**Teacher**: Great observation. It is measured in litres or kilolitres.

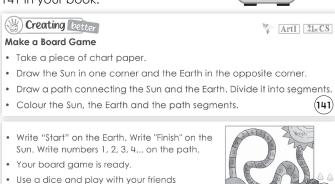
**Teacher**: Very good. It is important to observe how we use water in real life. Now let us begin our new class.

## Creating better

and family.

**Teacher**: Now, let us move to the 'Creating better' section. Open page 141 in your book.





**Teacher**: You will see an activity where you have to make your own board game using a chart paper.

**Teacher**: The game starts from the Earth and ends at the Sun. What do you think should be drawn along the path?

**Teacher**: Yes, numbers in order and you can divide the path into segments to show movement.

**Teacher**: You will also need to draw the Earth, Sun and the path. You can colour them nicely to make your board game look bright.

**Teacher**: At home, take help from your parents if needed. You can use a dice and play this game with your friends or family.

**Teacher**: Will you all try to make your game board at home?

**Teacher**: Good. I am excited to see your ideas. We will display some of the best ones in class.

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

## Thinking better

**Teacher**: Now open the 'Thinking better' section.



**Teacher**: Read the question: You are playing on a see-saw. Neither side is going up or down. Why do you think that is happening?



**Teacher**: Discuss with your partner and write your reason in one line.

Teacher: Who would like to share their answer?

**Teacher**: Yes, that is a great observation. Both sides have equal weight, so the see-saw stays balanced.

### Choosing better

Choosing better

**Teacher**: Let us look at the 'Choosing better'.

**Teacher**: Kavisha notices that her friend Samira is shy and not joining the game. What should she do?



At Kavisha's birthday party, she has organised a fun game of musical chairs. She notices her friend Samira is feeling shy and not joining in. What should Kavisha do?

- Cheerfully invite Samira to join the game and play together.
- Continue playing the game without inviting Samira.

**Teacher**: Yes, she should invite her cheerfully.

**Teacher**: Very thoughtful. We should always include our friends when they feel left out.

## Revising better

**Teacher**: Now turn to the 'Revising better' section. Everyone please open 'Little Book'.



(142)



**Teacher**: Let us recall all that we have learnt in this chapter.

**Teacher**: I will ask you a few questions. You will answer in one word or one sentence.

**Teacher**: What are the standard units to measure weight?

Teacher: Correct, grams and kilograms.

**Teacher**: What unit do we use to measure capacity?

Teacher: Millilitres and litres.

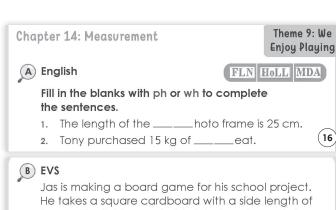
(Continue the discussion in the similar manner.)

### **Book of Holistic Teaching**

(Refer to the Book of Holistic Teaching, page 16,17 under the title 'Measurement.' 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.)





He takes a square cardboard with a side length of 16 cm. He divides each side into 8 parts, each 2 cm long. This gives him 64 small squares. He colors each alternate square white and black.

What game is Jas making? Is it an indoor or outdoor game?

## 17

## **Differentiated Activities**

#### 110 km/hr



Look around the classroom and list one example each of something we measure using:

- · centimetres
- kilograms
- litres

Write the unit and the reason why you chose it.

#### 80 km/hr



Estimate the weight of your lunchbox. Write 'lunchbox' and its estimated weight in grams.

#### 40 km/hr

Name one object from your surroundings that you can measure. Write the unit you will use to measure it.

## Home Task

Create the board game in the 'Creating better' section on page 141. Use a chart paper to draw a path from the Earth to the Sun. Colour the Earth, the Sun and all the segments neatly. Add numbering to the path. Bring your board game to class and also play it with your family members at home.

## Period 15

**Teacher**: Good morning students. How are you all feeling today?



**Teacher**: In the previous period, you created a fun board game using the theme 'Earth to Sun'.

**Teacher**: Who would like to share how you made your path or what numbers you wrote?

**Teacher**: Did you play with your family? How did they enjoy it?

**Teacher**: Very nice. It is always fun when learning and playing together. Let us now move on to today's tasks.

#### Worksheet 1

**Teacher**: Everyone, please open Worksheet 1 on page 47.



0		
Theme 9: We Enjoy Play 14. Measureme		(Worksheet 1
A. Choose the correct words	to fill in the blanks	
The unit of length for meas		(cm/g)
Weight is measured in		
	city is written in short as	,
	as	
	be measured in	
What would be the correct correct measure in each or correct measurement in each or correct measurement.	- C	llowing? Circle the
1. a pencil	14 cm/14 m	
2. a school bag	25 m/25 cm	
3. a classroom door	3 cm/3 m	
4. distance to school	1 m/1 km	
5. height of a building	15 m/15 km	
C. Convert centimetres to m	netres and centimetres.	
1. 200 cm = m		
2. 500 cm = m		
3. 620 cm =mcm		
4. 735 cm =m	cm	
5. 803 cm = m	cm	(47)

**Teacher**: Let us look at Exercise A. I will read question 1: **Teacher**: 'The unit of length for measuring small things is \_\_\_\_\_ (cm/g).' What do you think is the correct answer?

**Teacher**: Yes, it is 'cm'. Very good.

**Teacher**: Now complete the rest of Exercise A on your own.

**Teacher**: Now move to Exercise B. Let us read question 1 together:

**Teacher**: 'What would be the correct measure of length for a pencil – 14 cm or 14 m?'

**Teacher**: That is right – 14 cm. Now complete the rest of the exercise.

**Teacher**: Let us now solve Exercise C. I will guide you through question 1:

**Teacher**: '200 cm = \_\_\_\_ m'. We know 100 cm is 1 metre. So, 200 cm is 2 m.

**Teacher**: Good. Now complete the rest of the questions independently.

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

#### Worksheet 2

**Teacher**: Now open Worksheet 2 on page 48.



		Worksheet 2
		Worksheer 2
A. Write true or false.		
1. Kilograms is bigger unit for me	easuring capacity.	
2. Litres is written in short as ml.		
3. The capacity of a bottle can	be measured in millilitres.	
4. Large distances are measure	d in kilometres.	
5. Length of tree is measured in	grams.	
B. Circle the correct measure of	of capacity in each case.	
1. a glass of water	250 ml/25 l	
2. water in the tank	500 ml/500 l	
3. petrol capacity of a car	45 l/450 mL	
4. a juice bottle	300 l/300 ml	
5. a bucket of water	30 L/30 mL	
C. Find the sum and fill in the	blanks.	
1. 2 m + 4 m = m		
2. 3 kg + 5 kg = k	g	
3. 7 km + 3 km =	km	
4. 15 cm + 16 cm =	cm	
5. 6 L + 8 L =L		(48)

**Teacher**: Start with Exercise A. Let us discuss question 1: **Teacher**: 'Kilograms is a bigger unit for measuring capacity.' Is this true or false?

**Teacher**: Let us move to Exercise B. Read question 1 with me:

**Teacher**: 'A glass of water – 250 ml or 25 l?'

Teacher: Yes, 250 ml is the correct choice. Now do the

remaining questions.

**Teacher**: Finally, let us do Exercise C. I will help you with question 1:

**Teacher**:  $'2 \text{ m} + 4 \text{ m} = \underline{\hspace{1cm}} \text{m}'$ . The answer is 6 m.

**Teacher**: Complete the rest of the questions on your own.

SHOULD 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, have we learnt and write them in the 'L' column of the chart.

(Wait for students to fill in the chart.)

**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

Think of four real-life situations at home where you needed to measure something. Write the object, what you measured (length, weight or capacity) and the unit you would use (cm, g or l).

#### 80 km/hr

Choose three objects from your house. Write their names and the unit you would use to measure them (cm for length, g for weight or L for capacity).

#### 40 km/hr

Draw two object from your house. For each object, write whether you would measure its length (how long it is), weight (how heavy it is) or capacity (how much liquid it can hold).

## Home Task

Solve worksheet 3 given on page 49 in the Workbook.

# **Learning Outcomes**

## The students will:

Domain	Learning Outcome
Physical Development	perform measurement tasks using handspan, body movement and use classroom tools safely.
Socio-Emotional and Ethical Development	collaborate with peers during group activities and show responsibility while using measurement tools.
Cognitive Development	estimate, compare and calculate measurements using non-standard and standard units.
Language and Literacy Development	read and follow measurement instructions, express answers clearly using correct units.
Aesthetic and Cultural Development	create visual representations and drawings related to measurement with care and accuracy
Positive Learning Habits	complete measurement tasks independently, stay attentive during activities and ask relevant questions to clarify concepts.

Starry Knights Have you been able to identify your learners' strong and weak points? How do you plan to improve their weak points?	
Give yourself a STAR.	

## **Lesson-15: Data Handling**





10 Periods (40 minutes each)



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



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



## Curricular Goals and Objectives (NCF-FS)

#### To enable the students:

- to collect and organise data using lists, tables and pictographs.
- to observe, sort and group objects based on common features.
- to interpret and compare information shown in different formats.
- to engage in partner and group discussions about data.
- to build confidence through interactive and hands-on activities.
- to develop logical thinking using real-life situations.
- to promote sharing, fairness and teamwork while handling data.
- to strengthen mental maths skills by solving quick questions related to data.

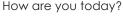
SHOULD DO

5 MIN

## Methodology

## Period 1

**Teacher**: Good morning students.



**Teacher**: Let us begin with a quick counting game using things around us.

**Teacher**: First, let us count how many students are present in the class today.

**Teacher**: Now, count how many books you have in your bag.

**Teacher**: How many notebooks are there in your bag? **Teacher**: Look at your table. How many desks and chairs can you see in your row?

**Teacher**: Very good. Today, we will start a new chapter Data Handling. It is all about collecting and counting information just like we did now.

## Confirming better

**Teacher**: Everyone, please open page 143 in the Main Coursebook. Let us start with 'Confirming better' section. Who will read and explain it?





**Teacher**: Today's affirmation is 'I stay active'. **Teacher**: Why is it important to stay active?

**Teacher**: Yes, staying active keeps us healthy and happy. It also helps us learn better.

**Teacher**: How do you like to stay active?

**Teacher**: Very nice responses. Let us all say together – I

stay active.

**Teacher**: We will begin a new chapter, Data Handling. 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 job in this activity. Let us move to Re-KAP activities. We will use Kinaesthetic, Auditory and Pictorial activities today to make our learning exciting.



#### Kinaesthetic

Teacher: Let us move to 'Kinaesthetic' activity. Open page 143 in your Main Coursebook.



Kinaesthetic

Choose one item from your pencil box. One student will say the name of each stationery item (for example, pencil, eraser, sharpener, etc.). If you choose that item, raise your hand. Count and write how many students chose each item. (143)

**Teacher**: Choose one item from your pencil box. One student will say a stationery item, like pencil, eraser or sharpener.

**Teacher**: If you choose that item, raise your hand.

**Teacher**: We will count how many students choose each item and write it as a list on the board.

Teacher: Very good. We just collected data by asking and counting

(🕮) You may show the **eBook** given on the digital platform.

## **Auditory**

Teacher: Kavisha goes to the market with her parents. They buy apples, bananas and oranges. When they get home, Kavisha sorts the fruits. She puts

apples in one basket, bananas in another and oranges in a third basket.



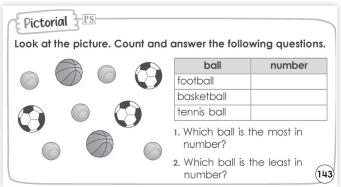
Auditory' Listen to your teacher carefully. Answer the questions. (143)

- 1. How many different fruits do Kavisha and her parents buy?
- 2. What does Kavisha do with the fruits when she gets home?

## **Pictorial**

**Teacher**: Look at the picture of balls – footballs, basketballs and tennis balls.





Teacher: Count how many of each type you can see. Let us fill the table together.

**Teacher:** 1. Which ball is the most in number?

Teacher: 2. Which ball is the least in number?

Teacher: Well done. This is how we collect and read information using pictures. We will learn more about it in the following periods.

(Use CRM signs to settle down the class.)

(🕮) You may show the **Dictionary** given on the

**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

Count and record how many of each item (pen, pencil, sharpener, ruler) are in your pencil box. Make a table.

#### 80 km/hr



Count how many boys and how many girls are sitting in your row. Make a two-column table.

#### 40 km/hr

Draw any two objects you see in your classroom. Count and write how many of each object are there.

## Home Task

Count how many chairs, spoons and glasses are there in your home. Write the numbers neatly in a table in your notebook.

## Period 2

Teacher: Good morning students.

How are you today?



Teacher: Let us begin with a short review from the previous period.

**Teacher**: How many types of balls did we count yesterday? Teacher: Very good, we counted footballs, basketballs and tennis balls.

Teacher: Now, look around the classroom and count how many types of things are kept on your desk.

**Teacher**: Can you name any two items that we can collect and make a table with?

Teacher: Great thinking. Are you all ready to continue our lesson on Data Handling?

## Interacting better

Teacher: Let us move to 'Interacting better' section. Open page 144 in your Main Coursebook.





Interacting better

Name two games that you play inside the house. Ask your partner about two games that they play outside the house. Write the name of the games in your notebook.

ICL

**Teacher**: Name two games that you play inside

**Teacher**: Now, ask your partner to tell you two games they

MUST DO

play outside the house.

Teacher: Write the name of all four games in your notebook.



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

**Teacher**: Now, we are going to read a story about Jas and Sam.

Got it, Jas!

**Teacher**: Before we read, tell me – how do you help your friends clean or sort things?

Teacher: Have you ever helped your family organise toys or books at home?

**Teacher**: Let us move to the story. Open page 144 in your Main Coursebook.

Teacher: Read the story of Jas and Sam carefully.

Teacher: While reading, observe how many toys they have and how they arrange them.

**Teacher**: What did Jas and Sam do to tidy up the room?

**Teacher**: How did they organise the toys?

**Teacher**: How many balls did Jas say he had in total?

Teacher: Yes, seven.

Teacher: Based on the story, let us now do a data-handling activity.



Teacher: On the board, I will draw three toy boxes - one for balls, one for cars and one for blocks.

Teacher: Now, think of how many of each item Jas and Sam collected.

**Teacher**: Fill the table in your notebook based on the story.

**Teacher**: Then answer two questions –

- 1. Which toy did they have the most?
- 2. Which toy did they have the least?

**Teacher**: This is how we collect, organise and compare data using a story. We will learn in the detail in the following periods.

Teacher: Well done, everyone. You all worked with great focus and shared your answers beautifully.

Teacher: Let us have a huge round of applause for our hard work today. See you in the next class

## **Differentiated Activities**

#### 110 km/hr

Count how many notebooks, books and pencils you have in your bag. Make a table to show vour data.

#### 80 km/hr

Count how many walls, windows and almirahs you can see in the classroom. Write the numbers in a simple table.

#### 40 km/hr

(144)

Draw any two objects from your classroom like a desk or board. Write how many of each you can see.

### Home Task

Count how many notebooks, storybooks and drawing books you have at home. Write the numbers neatly in a table format in your notebook.

## Period 3

**Teacher**: Good morning, students.

How are you today?

Teacher: Today, I will say a category and you will quickly

list three items that belong to that category. **Teacher**: First: name three types of fruits.

**Teacher**: Now: name three things you bring to school.

**Teacher**: Last: name three colours you can see in

our classroom.

Teacher: Excellent. This is how we group and list things, just like we will do in today's lesson.

#### **Listing Things**

Teacher: Let us move to 'Listing better' section. Open page 145 in your Main Coursebook.



SHOULD DO

5 MIN

#### LISTING THINGS

Jas and Ammi go to a toy shop. There is a sale in the shop. Ammi looks at the list of toys on sale. Jas asks, "What is this, Ammi?" Ammi says, "This is a list. It tells us which toys are on sale. It also

tells us how many of each toy is on sale.

Ammi adds, "This list tells us that cars, teddy bears, cricket bats and balls are on sale. The numbers next to the toys show how many of them are on sale.'

toys	cars	teddy bears	cricket bats	balls (14
number	8	9	3	5



**Teacher**: Read the short story about Jas and Ammi visiting a toy shop.

**Teacher**: This is a list. What do you notice in the list?

**Teacher**: Yes, it tells us which toys are on sale and how many of each.

**Teacher**: Let us read the numbers aloud together:

- Cars 8
- Teddy bears 9
- Cricket bats 3
- Balls 5

**Teacher**: It is very easy. Just read and understand the data, then answer the questions. Let us practise the questions in Exercise 1.

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

MUST DO

**Teacher**: Now, let us solve Exercise 1 on page 145.



**Teacher**: How many teddy bears are on sale? **Teacher**: Correct. 9 teddy bears are on sale.

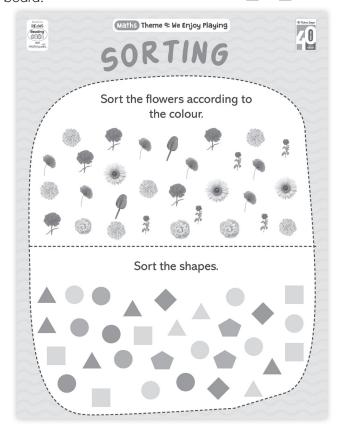
c. What is the total number of toys on sale?

## Poster

**Teacher**: Let us move to the sorting activity. Look at the poster on the board.



(145)



**Teacher**: First, look at the top part of the poster. What do you see?

Teacher: Yes, many flowers of different colours.

**Teacher**: Let us sort these flowers according to their colour – red and yellow.

**Teacher**: How many red flowers do you see?

Teacher: Now count the yellow ones.

**Teacher**: Well done. Now, look at the bottom part of the

poster. What do you see here?

**Teacher**: Correct, many shapes of different types and colours.

**Teacher**: Let us sort them based on shape – circles, triangles, squares and pentagons.

**Teacher**: Then we will also sort by colour – green, orange and yellow.

**Teacher**: Now draw two sorting groups – one for flowers and one for shapes – in your notebook.

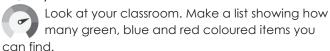
**Teacher**: Wonderful work today, everyone. You understood how to read a list and sort items by colour and shape.

**Teacher**: Let us give ourselves a huge round of applause for our efforts. See you in the next class.

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

## **Differentiated Activities**

#### 110 km/hr



#### 80 km/hr

Sort the books in your bag by size – small, medium and large. Count how many are there in each group.

#### 40 km/hr



raw two types of classroom objects and count how many of each are there. Write the number.

## Home Task

Look in your cupboard. Count how many shirts, trousers and socks you have. Make a simple table in your notebook to show this.

## Period 4

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



**Teacher**: Let us quickly revise what we learned yesterday. **Teacher**: What did Jas and Ammi see in the toy shop?

**Teacher**: Yes, they saw a list of toys on sale. **Teacher**: What kind of toys were listed?

**Teacher**: Good – cars, teddy bears, balls and cricket bats. **Teacher**: Yesterday, we learned to list and sort things. Today, we will learn a fun way to show information using pictures.

**Teacher**: Let us say you have 5 apples. Instead of writing the number 5, can we draw 5 apple pictures to show the same?

**Teacher**: Now, let us learn a new way to show this data using pictures. Are you ready?

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

#### **Pictograph**

**Teacher**: Let us move to the pictograph. Open page 145 in your Main Coursebook.



## PICTOGRAPH

The information in the toy shop's list can also be shown with the help of pictures. This is called a **pictograph**.

In a pictograph, pictures of items are used as **symbols** in place of numbers. The list of toys on sale is shown in this pictograph.

toys	number
cars	<b>A A A A A A A A</b>
teddy bears	33333333
cricket bats	
balls	• • • •

**Teacher**: Look at the table that shows toys on sale – cars, teddy bears, cricket bats and balls.

**Teacher**: What do you notice about the numbers in the second column?

**Teacher**: Yes, they are shown using pictures instead of

**Teacher**: This is called a pictograph. In a pictograph, we use pictures to show how many of something is there.

**Teacher**: How many toy cars are shown?

**Teacher**: Count the pictures. That is right, 8 cars.

**Teacher**: What about teddy bears?

**Teacher**: Yes, 9 teddy bears.

**Teacher**: So, instead of writing numbers, we just count the

pictures.

**Teacher**: Why do you think pictographs are useful?

Teacher: Yes, they are colourful and make data easy to

understand quickly.

**Teacher**: You can use pictographs to show data about students, fruits, toys

or even homework pages.

Teacher: Let us practise reading

it together.



2 A list of hobbies of the students in Jas's class is given below. The teacher shows a pictograph of this list to the students. Look at the pictograph. Answer the the following questions.

hobbies	swimming	dancing	skating	drawing
number of students	7	4	11	14 (146)

	hobbies	number of students
	swimming	
Г	dancing	<u> </u>
	skating	
	drawing	
	stands for	one student.
	This is the key of	of the pictograph.
a.	How many s	students like skating?
b.	How many s	students like swimming?
c.	What is the of students?	hobby of the most number
d.	What is the of students?	hobby of the least number

**Teacher**: Now let us look at another pictograph. Do not solve it yet. Just observe and think.

**Teacher**: Look at the pictograph of hobbies. Each smiley face shows one student.

**Teacher**: What are the hobbies listed?

Teacher: Swimming, dancing, skating and drawing.

**Teacher**: Can we count the number of smiley faces for

each hobby?

**Teacher**: Yes, just like we did with toys.

**Teacher**: What does the smiley face mean here?

**Teacher**: Yes, one smiley face stands for one student. Let

us count and answer:

a. How many students like skating?

**Teacher**: Count the smiley faces in the skating row.

**Teacher**: Yes, 11 students.

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

Teacher: Very good work today. You all understood what

a pictograph is and how to read it.

**Teacher**: Let us give ourselves a big round of applause for our learning. See you next time.

#### **Differentiated Activities**

### 110 km/hr



Draw your own pictograph showing the number of books, notebooks and pencils you carry to school.

#### 80 km/hr

Ask five friends their favourite colour. Draw one picture for each vote, like a red circle for red or a blue star for blue. Make a pictograph showing how many friends chose each colour.

#### 40 km/hr

•

Draw pictures to show how many pencils, erasers and sharpeners are in your bag. Use one picture

for each item.

#### Home Task

Create a pictograph to show how many times you brushed your teeth, packed your bag and ate fruits this week. Use simple pictures.

## Period 5

Teacher: Good morning students.

How are you today?

Teacher: Let us recall what we learned about pictographs in the last class.

Teacher: What do we use in a pictograph instead of numbers?

**Teacher**: Yes, we use pictures or symbols.

**Teacher**: Let us now move forward to revise all that we

have learned so far.

## Recalling better

Teacher: Let us move to 'Recalling better' section. Open page 146 in your Main Coursebook.



SHOULD DO

5 MIN.



**Teacher**: In this chapter, we have learnt two main things. Let us recall them together.

**Teacher**: First, how do we list things?

**Teacher**: Yes, we list things by writing names of items one below the other or in a table. It helps us see all the items

**Teacher**: Now tell me, what is a pictograph?

**Teacher**: A pictograph is a way to show information using pictures or symbols instead of numbers.

**Teacher**: Why do we use pictographs?

**Teacher**: Because they make data fun, easy to understand

and quick to read.

**Teacher**: What kind of data can we show using

pictographs?

**Teacher**: We can show hobbies, number of toys, number of students or any information we can count.

Teacher: Very good. You all remember what we learnt clearly.

( You may show to **Slideshow** given on the digital platform. COULD DO

Teacher: Now, let us do a small activity

using our classroom data.

**Teacher**: I will write three activities on the board: Reading, Drawing and Skipping.

ID MIN.

Teacher: Raise your hand if you enjoy any of these. I will count and make a table using your responses.

Teacher: Once we have the data, we will draw a

pictograph using simple symbols.

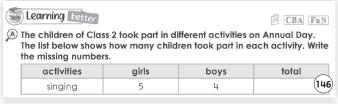
**Teacher**: You can use smiley faces, stars or circles to represent the number of students for each activity.

Teacher: This will help us practise collecting and showing data in a fun way.

## Learning better

Teacher: Let us move to 'Learning better' section. Open page 146 in your Main Coursebook.





activities	girls	boys	total
drawing		5	13
dancing	7		16
fancy dress	4		10
. How many girls to the second			
s. The most numbe	er of students took	part in	·

**Teacher:** We will now do Exercise A, which shows how many boys and girls took part in different Annual Day activities.

**Teacher**: Who would like to read and explain the first table in Exercise A?

**Teacher**: Very good. Please read it aloud for the class.

**Teacher**: Now let us solve it together.

Teacher: The first row is for singing. Girls – 5, Boys – 4. What will be the total?

Teacher: Yes, 9.

(Guide students to fill in the table in a similar way.)

**Teacher**: Let us now answer the questions given below the

table. How many girls took part in dancing?

Teacher: 7 girls. Well done. Now Answers the question by vour own.

Teacher: Well done everyone. You have learned how to read and complete tables and answer questions based

**Teacher**: Let us all give ourselves a big round of applause. See you in the next class.

## **Differentiated Activities**

### 110 km/hr

Create a table showing how many classmates like each fruit - apples, bananas and mangoes. Ask 5 friends and fill in the table.

#### 80 km/hr

Look at the classroom shelves. Count and make a table showing how many books, notebooks and water bottles are placed there.

#### 40 km/hr

Draw any two activities you enjoy at school. Count how many times you do them in a week and write the number next to each drawing.

## Home Task

Ask two family members their favourite indoor and outdoor games. Write the names of the games in your notebook in a table format.

## Period 6

Teacher: Good morning students.

How are you today?

SHOULD DO

**Teacher**: Let us begin with a fun activity using our hands.

**Teacher**: If you like to draw, clap once.

**Teacher**: If you enjoy playing games, tap your desk twice.

**Teacher**: If you like reading books, raise your hands. Teacher: Wonderful. You just shared your favourite

activities using actions.

Teacher: Today, we will use pictures and tables to show

such information. Let us get started.

Teacher: Let us move to Exercise B.

Open page 147 in your Main Coursebook.



favourite game	cricket	carrom	chess	football
number of students	9	4	5	6
favourite game		number	of students	
cricket				
carrom				
chess				
football				

**Teacher**: The table shows the favourite games of students in Class 2C.

**Teacher**: Let us read the data first:

- Cricket 9 students
- Carrom 4 students
- Chess 5 students
- Football 6 students

Teacher: You are asked to draw a pictograph using any symbol. Each symbol should stand for one student.

Teacher: You can choose a shape like a smiley face, star or triangle and repeat it for the number of students.

Teacher: Work neatly and carefully. Let me know if you have any doubts.

**Teacher**: Now, let us move to Exercise C on the same page.



© There was a drawing competition in Jas's class. The pictograph below shows the kind of drawings made by the students. Look at the pictograph. Answer the questions that follow.

kind of drawings	number of students
scenery	<b>.</b>
superheroes	<u> </u>
animals	<u> </u>
flowers	<u> </u>
cars	<u> </u>
stands for one stude	nt

**Teacher**: Look at the pictograph that shows different kinds of drawings made during a competition.

**Teacher**: Read it carefully and count the smiley faces.

Let us answer each question together:

1. How many students drew cars?

3. How many students drew scenery?

the most number of students?

4. Which kind of drawing was drawn by

5. Which kind of drawing was drawn by the least number of students?

Teacher: Yes, 5.

2. How many students drew superheroes?

Teacher: 4 students.

(Continue the discussion in the similar way.)

**Teacher**: Excellent observation. This pictograph was easy

to read.

#### **Doubt Session**

Teacher: Do you have any doubts about drawing or reading pictographs?



Teacher: You may ask your questions now. I will help you if you are confused.

**Teacher**: If you are clear, try helping a friend near you who might need support.

Teacher: Well done, everyone. You read, drew and interpreted pictographs very clearly today.

**Teacher**: Let us all give ourselves a big round of applause. See you in the next class.

## **Differentiated Activities**

#### 110 km/hr

Collect data from 5 classmates about their favourite animals. Use pictures to draw a pictograph and write two questions based on it.

#### 80 km/hr



Ask three friends their favourite fruit. Create a pictograph using fruit drawings to show the data.



#### 40 km/hr

Draw 2 pictures to show how many pencils and erasers are in your pencil box. Use one picture for each item.

## Home Task

Create a pictograph to show how many times you did these three things this week – reading, drawing and helping your parents. Use any simple shape to represent each time.

Bring a sheet of paper, crayons or sketch pens, ice-cream sticks and glue for the 'Creating better' activity. Carry all materials in a labelled pouch for classroom use.

## Period 7

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



**Teacher**: Let us begin with a quick and fun movement game to think about what we eat in the morning.

**Teacher**: If you had milk for breakfast today, clap your hands twice.

**Teacher**: If you had fruits, touch your toes.

Teacher: If you ate anything warm like idli, paratha or

poha, stretch your arms wide.

Teacher: If you did not eat breakfast, stay still.

**Teacher**: Very good. This shows how we can collect data using actions.

**Teacher**: Eating breakfast every morning helps you stay active and ready to learn. So always try to eat something healthy to start your day.

## Creating better

**Teacher**: Let us move to 'Creating better' section. Open page 148 in your Main Coursebook.



## Creating better

## ArtI 21st CS

#### Make an Animal Puppet

- Take a sheet of paper, marker, colours, ice-cream sticks, glue and a pair of scissors.
- Draw faces of a few animals as shown. You can draw some more of your choice. You can also cut pictures from old magazines.
- Colour the animals and the ice-cream sticks.
- With the help of an adult, cut out the animal faces.



- Paste one face on each ice-cream stick.
- · Your animal puppets are ready.
- With your friends, narrate a story and show it to your teacher using the puppets



**Teacher**: Today, we will make animal puppets using paper, colours and ice-cream sticks.

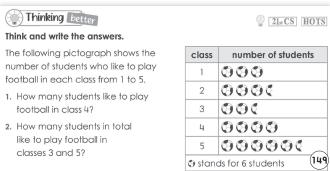
(Guide the students to complete the activity.)

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

## Thinking better

**Teacher**: Let us move to the 'Thinking better' section. Open your book to the page 149.





**Teacher**: This pictograph shows how many students like to play football in classes 1 to 5.

**Teacher**: Look carefully. What does one football picture represent?

**Teacher**: Yes, each football picture stands for 6 students.

**Teacher**: Let us now answer the first question: **Teacher**: How many students like to play football in

Teacher: Count the footballs in that row.

Teacher: One, two, three, four, five. And each one means

6 students.

**Teacher**: So, 6 times 5 is...? **Teacher**: Yes, 30 students.

(Guide the students to complete the activity.)

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

#### Choosing better

**Teacher**: Let us move to the 'Choosing better' section. Open to the page where Meera and her friends are swinging.



(149)



Keep swinging and ignore Sara.

**Teacher**: Read the situation carefully. Meera sees Sara waiting patiently for a turn.

**Teacher:** What do you think Meera should do?

**Teacher**: Should she keep swinging and ignore Sara?

**Teacher**: Or should she invite Sara to join and take turns?

Teacher: Think about a time when you were waiting for

something. How did it feel?

**Teacher**: Yes, it can feel lonely or upsetting when others do not include us.

**Teacher:** Now, imagine you are Meera. What would you do?

**Teacher**: Yes, inviting Sara to join is the right thing. It shows kindness and fairness.

**Teacher**: Why is it important to take turns while playing? **Teacher**: That is right. Taking turns helps everyone feel included and respected.

**Teacher**: When we share space and time with others, we create a happy and caring classroom.

**Teacher**: Very good thinking. I am proud of your thoughtful answers.

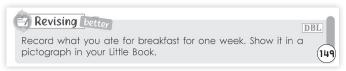
(Use **CRM signs** to settle the class.)

## Revising better

**Teacher**: Let us move to the 'Revising better' section. Open page 149 in

your Main Coursebook.





**Teacher**: This task says, 'Record what you ate for breakfast for one week. Show it in a pictograph in your Little Book.'

**Teacher**: What does this mean? Can anyone explain?

**Teacher**: Yes, it means each day you will note down what you had for breakfast.

**Teacher**: Then, you will choose one symbol to represent one day's breakfast. For example, a bowl or a fruit.

**Teacher**: How many days are there in a week?

**Teacher**: Yes, seven. So you will draw seven symbols to show what you ate each day.

**Teacher**: This is not a classroom task. You will do it at home throughout the week.

**Teacher**: Try to complete it honestly and neatly. Ask your parents for help if you forget what you ate.

**Teacher**: This pictograph will be a fun way to look back at your eating habits and help you understand the importance of healthy breakfasts.

**Teacher**: Very good. I know you will do a great job.

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

**Teacher**: Let us give ourselves a big round of applause. See you in the next class.

## **Differentiated Activities**

#### 110 km/hr

Create a pictograph showing how many times you played indoor games, outdoor games and read books this week. Use your own symbols and write two questions based on your pictograph.

#### 80 km/hr

Make a pictograph using smiley faces to show how many times in a week you did these: reading, helping at home and colouring. One smiley = one time.

#### 40 km/hr

Draw two activities you enjoy at school, like drawing or singing. Next to each, draw smiley faces to show how many times you did them this week.

## Home Task

Record what you ate for breakfast for one week. Show it in a pictograph in your Little Book.

## Period 8

Teacher: Good morning, students.

How are you today?



**Teacher**: Let us quickly revise what we have learnt in this chapter. I will ask you a few questions. Raise your hand if you know the answer.

Teacher: What do we call a way of showing data using

pictures or symbols?

**Teacher**: Yes, a pictograph.

Teacher: What do we use in a table to list

information clearly?

**Teacher**: Good. We use rows and columns. **Teacher**: In a pictograph, if one smiley stands for 2 students, how many students are shown by 4 smileys?

Teacher: Yes, 8 students.

**Teacher**: What is the purpose of using lists and tables? **Teacher**: That is right. To make data easy to read and

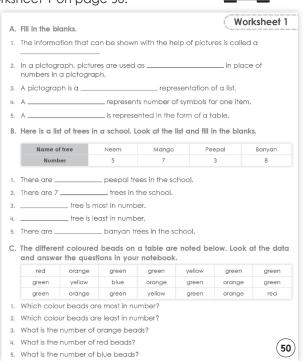
understand.

**Teacher**: Well done. Let us now move to today's worksheets and practise more.

Worksheet 1

**Teacher**: Open your workbook to Worksheet 1 on page 50.







**Teacher**: Let us start with Exercise A, it is about pictographs. Teacher: Read question 1: 'The information that can be

shown with the help of pictures is called a \_\_\_\_\_.'

Teacher: Yes, that is called a pictograph. Very good. **Teacher**: Now complete the remaining questions from Exercise A on your own.

Teacher: Move to Exercise B. It gives a table showing

different trees in the school.

**Teacher**: Let us solve question 1 together: 'There are \_\_\_\_ peepal trees in the school.'

**Teacher**: Look at the table. Peepal = 3. So the answer is 3.

Teacher: Now complete the rest of the questions in

Exercise B on your own.

Teacher: Look at Exercise C. It shows different coloured beads.

Teacher: Let us solve question 1 together: 'Which colour

beads are most in number?'

**Teacher**: Yes, green beads. Count and confirm.

**Teacher**: Now complete the remaining questions from

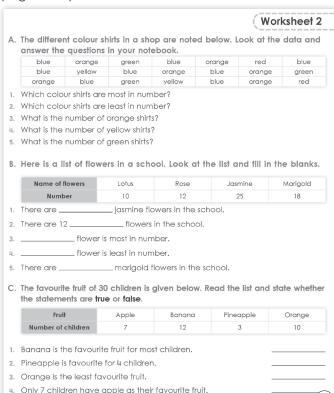
Exercise C on your own.

#### Worksheet 2

**Teacher**: Now turn to Worksheet 2 on

page 51 in your workbook.





**Teacher:** Start with Exercise A. It is about different colour shirts.

5. Orange is favourite for 12 children.

**Teacher**: Let us discuss question 1: 'Which colour shirts are most in number?'

**Teacher**: Count the blue shirts. Are they the most? Yes.

**Teacher**: Now do the rest of Exercise A independently.

Teacher: Now go to Exercise B, this is a table showing number of flowers.

**Teacher**: Let us do question 1 together: 'There are \_\_\_\_ jasmine flowers in the school.'

**Teacher**: Look at the table. Jasmine = 25.

**Teacher**: Complete the other questions on your own now.

Teacher: Finally, look at Exercise C. This one is a true or

false task based on favourite fruits.

Teacher: Let us do the first statement: 'Banana is the

favourite fruit for most children.'

Teacher: Is that true? Yes. 12 students like banana – the highest.

**Teacher**: Now mark the remaining statements on your own.

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

#### **Doubt Session**

**Teacher**: Let us take a few minutes to clear any doubts from the whole



**Teacher**: Are you clear about how to read pictographs and tables?

Teacher: Do you understand how to compare data and fill missing values?

Teacher: If you have any confusion from the workbook or exercises, please ask now.

Teacher: Excellent effort today. You all completed the worksheets and thought carefully about the answers.

Teacher: Let us give ourselves a big round of applause. See you in the next class.

### **Differentiated Activities**

#### 110 km/hr



Make your own table to show how many students like four different indoor or outdoor games. Write two questions based on your table.

#### 80 km/hr



Look at the fruit data in Worksheet 2. Create a pictograph using one symbol for every two

## 40 km/hr



Draw pictures to show how many students like any two fruits. Use one smiley for each student.

## Home Task

Look around your house. Count how many bags, shoes and water bottles you can find.

Make a table to show the numbers. Then, draw a pictograph using one symbol for each item to represent the same data in pictures.

(51)

## Period 9

**Teacher**: Good morning students.

How are you today?

**Teacher**: Let us start with a quick pictograph quiz. Answer

by raising your hand.

**Teacher**: What does a pictograph use to show numbers?

Teacher: Yes, pictures or symbols.

Teacher: If one smiley face stands for 5 students, how

many students are shown by 3 smileys? **Teacher**: That is correct, 15 students.

Teacher: What helps us understand how many things

each picture stands for?

**Teacher**: Yes, the key or the symbol value.

Teacher: Great thinking. You all are ready to work on

today's worksheet.

#### **Worksheet 3**

**Teacher**: Open your workbook to Worksheet 3 on page 52.



SHOULD DO

5 MIN

Worksheet 3 A. Fill in the blanks with correct option. is the representation of information with the help of pictures. (pictograph/data) 2. A pictograph is represented in the form of \_\_\_\_ are used as symbols in place of numbers in a pictograph. (Numbers/Pictures) 4. A pictograph is a pictorial representation of a \_\_\_\_ 5. The representation of number of symbols for one item is known as . (key/list) B. Look at the pictograph. Complete the list using it. Number of Name of fruit 6666 Oranges pieces Oranges 000000 Apples Apples Pears 666666666 Strawberries 00 Strawberries 00000 Watermelons Watermelons C. Look at the pictograph. Write the number in each case. 1. Number of girls in Class 1 = \_\_\_\_\_ Class Number of girls 2. Number of girls in Class 2 = \_\_\_ 999 9999 3. Number of girls in Class 3 = \_\_ 3 99999 4. Number of girls in Class 4 = \_\_\_ 6666 5. Number of girls in Class 5 = \_\_\_ 888888 (52)

**Teacher**: Let us start with Exercise A. This is about fill in the blanks.

**Teacher**: Read question 1: 'A \_\_\_\_\_\_ is the representation of information with the help of pictures.'

**Teacher**: Yes, the correct answer is 'pictograph'.

Teacher: Now complete the rest of the exercise on your

own.

**Teacher**: Move to Exercise B. You can see a pictograph of fruits and their number of pieces.

**Teacher**: Let us count the fruit symbols and write the number of pieces.

**Teacher**: Let us do the first row together: How many

orange pieces are there?

**Teacher**: Yes, 3. Now complete the remaining rows.

**Teacher:** Now look at Exercise C. It shows the number of

girls in Classes 1 to 5.

**Teacher**: Let us do the first question together. Count the

pictograph symbols for Class 1.

Teacher : Each circle shows 5 girls. There are 3 circles. 5

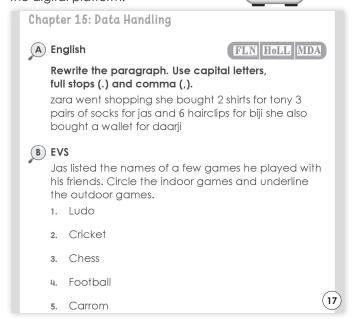
multiply by 3 is 15 girls.

**Teacher**: Now complete the remaining questions on

your own.

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

COULD DO



(Refer to the Book of Holistic Teaching, page 16 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.)

**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.)

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

## **Differentiated Activities**

#### 110 km/hr

Ask 7 classmates which colour they like the most. Create a pictograph using one symbol for each vote. Then, write any 3 questions based on your pictograph for a classmate to answer.

#### 80 km/hr



Ask 2 classmates which vegetable they like the most. Draw a pictograph to show their responses. Write 3 questions about your pictograph in your notebook.

#### 40 km/hr

With a partner, ask 3 classmates which storybook they like. Draw a pictograph to show their answers using smileys. Together, write 3 questions related to your pictograph.

## **Home Task**

Make a pictograph to show how many glasses of water you drank in each of the last three days. Use one picture of a glass for each time.

## Period 10

Teacher: Good morning, students.

How are you today?



Teacher: Today, we will solve some mental maths to warm up our minds.

**Teacher**: Can anyone tell me what mental maths means?

**Teacher**: Yes, mental maths means solving questions using our mind without using a pencil or using it very little.

Teacher: We think quickly and try to find the answer in our

head. Let us try it now.

Teacher: Which number is bigger: 25 or 52?

Teacher: Correct, 52 is bigger.

**Teacher**: What is the smallest two-digit number?

**Teacher**: Yes, it is 10.

**Teacher**: What is the place value of 7 in seventy-three?

Teacher: Right, it is 70.

Teacher: Which is an odd number: 36 or 35?

Teacher: Yes, 35 is an odd number. **Teacher**: What comes after 199?

Teacher: Correct, 200.

Teacher: Well done. Now let us move to our worksheets to

revisit our previously learnt concepts.

Teacher: Today, we will solve a mental maths worksheet. Open your worksheet to page 9.



**Teacher**: We will discuss only some questions of each section. You will complete the remaining questions on vour own.

Teacher: Let us start with Section A.

**Teacher**: 1. Which is the biggest number: 24, 78, 125?

Teacher: Yes, 125 is the biggest number.

Mental Maths		
A. Answer the following questions.		
1. Which is the biggest number: 24, 78, 12	25?	
2. Smallest 2-digit number.		
3. Place value of 5 in 658.		
4. Which is an odd number: 67 or 58?		
5. What comes after 876?		
B. Write the numerals for the following	number names.	
1. One hundred fifty-two		
2. Three hundred ninety-three		
3. Five hundred sixty-six		
4. Eight hundred eighty-eight		
5. Nine hundred forty-seven		
6. Nine hundred forty-seven		
C. Find the multiplication fact for the fo	ollowing.	
1. 2 times 5 2.	4 times 8	
3. 5 times 6 4.	7 times 7	
5. 6 times 4 6.	9 times 5	
D. Find the fraction for the shaded port	ion.	
1. 2.	3.	9

**Teacher**: Now, do the remaining questions of Section A on your own.

Teacher: Now, let us move to Section B.

Teacher: 1. One hundred fifty-two. Write the numeral for it.

Teacher: Yes, the numeral is 152.

**Teacher**: Now, do the remaining questions of Section B on

your own.

**Teacher**: Now, let us move to Section C.

**Teacher**: 1. Find the multiplication fact: 2 times 5.

Teacher: Yes, 2 times 5 is 10.

Teacher: Now, do the remaining questions of Section C

on your own.

**Teacher**: Now, let us move to Section D. **Teacher**: Look at the first shaded shape. **Teacher**: How many parts are shaded?

**Teacher**: Yes, 1 out of 2 parts is shaded, so the fraction is  $\frac{1}{2}$ . Teacher: Now, do the remaining questions of Section D on

your own.

**Teacher**: Very good. We have discussed question 1 of

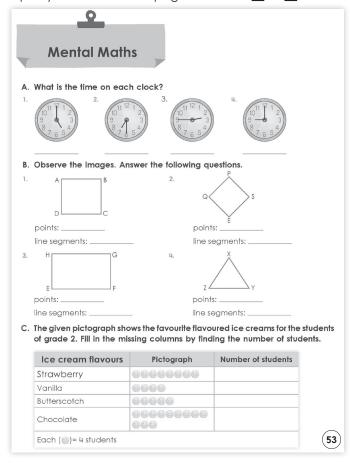
each section.

**Teacher**: Keep solving the rest of the worksheet neatly.

#### **Mental Maths**

**Teacher**: We will continue with some interesting mental maths questions. Open your worksheet to page 53.





**Teacher**: Let us start with Section A.

**Teacher**: What is the time on the first clock?

Teacher: Yes, it is 8 o'clock.

**Teacher**: Now, let us move to Section B.

**Teacher**: Look at the first figure. How many points

are there?

**Teacher**: Correct, there are 4 points.

**Teacher**: How many line segments are there?

Teacher: Yes, 4 line segments.

Teacher: Now, let us move to Section C.

Teacher: Look at the pictograph. Each face stands for

4 students.

**Teacher**: How many students like Strawberry flavor?

Teacher: Good, 28 students.

**Teacher**: Keep solving the rest carefully in your worksheet.

**Teacher**: Today, we practised reading clocks, counting points and line segments and reading pictographs.



**Teacher**: Mental maths makes our mind sharp and fast. **Teacher**: You all worked very well today. Let us give ourselves a big round of applause.

## **Differentiated Activities**

#### 110 km/hr



Draw a clock showing 3:30 and write the time.

#### 80 km/hr



Draw a square and a triangle. Write how many points and line segments each has.

#### 40 km/hr



If 1 star represents 2 students, draw 5 stars and write the number of students.

## Home Task

Practise more questions in mental maths to improve your speed and thinking skills.

# **Learning Outcomes**

## The students will:

Domain	Learning Outcome
Physical Development	perform measurement tasks using handspan, body movement and use classroom tools safely.
Socio-Emotional and Ethical Development	collaborate with peers during group activities and show responsibility while using measurement tools.
Cognitive Development	estimate, compare and calculate measurements using non-standard and standard units.
Language and Literacy Development	read and follow measurement instructions, express answers clearly using correct units.
Aesthetic and Cultural Development	create visual representations and drawings related to measurement with care and accuracy
Positive Learning Habits	complete measurement tasks independently, stay attentive during activities and ask relevant questions to clarify concepts.

Starry Knights  Have you been able to identify your learners' strong and weak points? How do you plan to improve weak points?	their
Give yourself a STAR.	