CHAPTER: Long and Short

Grade: **4**
Board: **CBSE**
Book: **NCERT**

1.

Chapter Summary and Placement

<Read through the following to understand how this chapter is connected with the previous and next grades and also the important concepts covered in it.>

1. This chapter encourages students to estimate length of an object and distance between two given locations.
2. Knowledge of this chapter will help students to solve problems involving length and distances.

2.

LEARNING OUTCOMES

<On completion of the chapter, students will be able to:>

1. Estimate length of an object and distance between two given locations.
2. Solve problems involving length and distances.

3. TEACHING PLAN

Follow this section for getting ideas on teaching the content covered in the chapter. The subtopic given in the first column with the matching learning outcome can be explained using instructions and resources listed subsequently

Subtopic and Learning Objective #1

Subtopic:
Long or Short

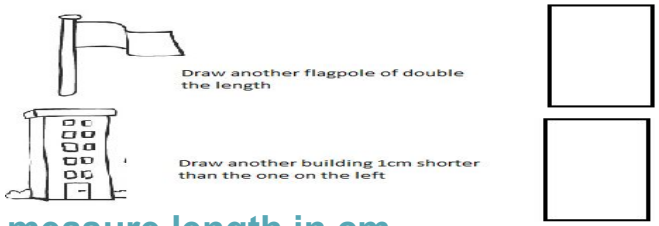
LO:
Estimate length of an object and distance between two given locations.

1.To make the student estimate and measure distance between two points

Teacher Activity

1. Ask the students to extend their arms out. Ask them to guess the length(in cms) of their arms from their shoulder to the tip of the little finger. Tell them to note it in their notebook. Ask them to use their measuring scale to check if their answers are correct.

2. Read the story “The shorter line” on page 14 of the textbook. Ask the students to formulate more such puzzles using ‘long’ and ‘short’.



Check for understanding:

Activity 1 can be performed to make class estimate and measure length in cm

Resources Suggested

Pencil box, board, chalk, scale and textbook

Subtopic and Learning Objective #2

Subtopic:
Long or Short

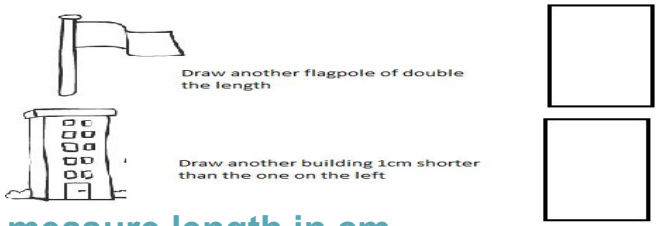
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Check for understanding:

Activity 1 can be performed to make class estimate and measure length in cm

Resources Suggested

Pencil box, board, chalk, scale and textbook

Activity 1

Name of the activity- Let's measure

Type of activity – Individual

Use it for – Making the students estimate and measure lengths

Materials – Measuring scale, pen, paper

Procedure:

Instructions to the teacher

1. Each student will estimate the length of the following body parts and note it on a paper:

a. Face
b. Nose
c. Eyebrow
d. Neck
e. Leg
f. Foot

2. Next, each student will measure the length of the above body parts using the measuring scale and note it next to the estimate.

Activity 1

1. The student who gets the maximum correct answer is the winner.
2. The students can then compare their answers to find the following:

a. Who has the longest neck and who has the shortest neck?
b. Who has the biggest foot and who has the smallest foot?
c. Who has the longest nose and who has the smallest nose?
d. Who has the longest eyebrows?

Subtopic and Learning Objective #3

Sub topic: How many metres?

LO: Solve problems involving length and distances.

1. To make student solve problems involving length and distances using metres and km.

Teacher Activity

1. Ask the students if they can measure the length, width and height of their classroom using the scale. Discuss if they can use anything other than the scale to do it. Ask the student about units used for measuring large lengths and distances.

Revise

1 metre = 100 centimetres
We can write metre as ‘m’

1 kilometre = 1000 metres
We can write metre as ‘km’

2.Discuss measurements where metre and kilometre is used

3.Solve some problems adding and subtracting lengths.

Check for understanding:

Which of these can be measured in centimetres and which will be measured in metres and which in km ?

1. Waist of an elephant
2. Height of a truck

Teacher Activity

1. Width of an oven
2. Length of a cucumber
3. Height of your uncle
4. Distance from Kashmir to Kanyakumari
5. Height of your cycle
6. Length of your dining table
7. Length of a Sari
8. Distance from your house to the school

Activity 2 can be performed to make class practice conversions

Resources Suggested

Pencil box, board, chalk, scale and textbook

Activity 2

Name of the activity- How many?
Type of activity – Group
Use it for – practice conversions
Materials – playing card, paper, pen, empty boxes
Procedure:
Instructions to the teacher:

1. Make 30 chits of paper and write “metre to centimetre” on half of them and write “ kilometre to metre” on the other half.
2. Shuffle them and keep them in one box.
3. Take a deck of cards and remove the face cards (jacks, queens, and kings).
4. Shuffle the cards and keep in another box.
5. Tell the students that for the purposes of this game aces = 1.
6. Divide the students into 4 groups.
7. Take out one card and one chit and set them on the table face up.

Activity 2

1. The first group starts the play. (For example: if the card is 6 and the chit says “metre to centimetre”, the answer from the group should be "600 cms!" 6 m x 100 = 600 cms.)
2. If the answer is correct, the group gets to keep the card.
3. Continue playing until the deck runs out.
4. The group with maximum cards will be the winner.
5. You can make it tougher by adding two more types of chits, “centimetre to metre” and “metre to kilometre ”

4. WORKSHEETS

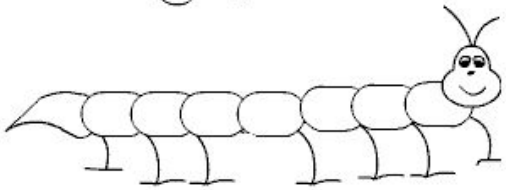
Print or copy the worksheet questions on the blackboard and ask the students to attempt them. They can be given as homework or a class test as well.

Worksheet 1

Draw According to given instructions



Make another string 3 times longer



Draw the missing leg 1 cm longer than other legs



Draw another tree of double the length.



Draw a straw half as long as this straw

Worksheet 2

Convert

a. 400cm = _____ m

b. 3m = _____ cm

c. 9000m = _____ km

d. 7km = _____ m

e. 6m = _____ cm

f. 5000m = _____ km

g. 8km = _____ m

h. 900cm = _____ m

Worksheet 3

Solve

a. One bench is 68cm long. Another bench is 85cm long. What is their total length in metres?
b. Reena needs 6 pieces of ribbon. Each piece must be 20 cm long. What length of the ribbon should Reena buy?
c. Gyan goes to the market everyday to sell milk. He starts from home and first walks about 500 metres to the little forest. He then tiptoes 250 metres through the forest careful not to disturb Tillu tiger. Next he runs up 150 metres of slope to reach the market. How far is Gyan's home from the market? What is the total distance covered by Gyan for coming to and going back from the market in kilometres?
d. Sheena runs 5kms three times a week. Gehu runs 4 kms five days a week. How many metres more than Sheena does Gehu run every week?

5. SOLUTIONS

This section gives you sample answers for activities and questions listed above.

Worksheet 2

a. 4m
b. 300cm
c. 9km
d. 7000m
e. 600cm
f. 5km
g. 8000m
h. 9m

Worksheet 3

a. 1m 53cm
b. 120cm
c. 900 metres; 1km 800m
d. 5km

6. EXTRA RESOURCES

Carry out the following suggested activities/ tasks if you have the time and resources to do them

Teacher can use these videos if time and facilities permit:

https://www.youtube.com/watch?v=aLsmFbW8ikU long and short

https://www.youtube.com/watch?v=5G0JwKhTWYU long or short

https://www.youtube.com/watch?v=Ll21j2r8gDc centimeters

https://www.youtube.com/watch?v=fcAl2g92NyY estimation