

Vision Empower & XRCVC
Teacher Instruction KIT
Chapter 16 - Weight

Syllabus: Karnataka State Board

Subject: Mathematics

Grade: First Textbook Name: Text cum Workbook(Revised)-First Standard

Chapter Number & Name: 16. Weight

1. OVERVIEW

1.1 OBJECTIVE AND PREREQUISITES

Objectives:

- To understand and distinguish between thick and thin
- To make a comparison between heavy and light objects

Prerequisite Concept

- Numbers
- Counting

Content Index

*Kindly Note: Activities marked with * are mandatory*

OVERVIEW

1.1 OBJECTIVE AND PREREQUISITES

LEARN

2.1 KEY POINTS

ENGAGE

3.1 INTEREST GENERATION ACTIVITY

INTRODUCTION TO THE CONCEPT

Activity 1: Introduction to weight*

3.2 CONCEPT INTRODUCTION ACTIVITIES

CONCEPT OF THICK & THIN, HEAVY & LIGHT

Activity 2: Understanding the concept of 'Thick' and 'Thin'*

Activity 3: Understanding 'Heavy' and 'Light'*

3.3 LET'S DISCUSS: RELATE TO DAILY LIFE*

4. EXERCISES & REINFORCEMENT

4.1 REINFORCEMENT

Activity 4: Make a guess-Heavier or Lighter*

Activity 5: Do it yourself balance scale

4.2 IMPORTANT GUIDELINES*

[Exercise Reading](#)

[Perform Textbook Activity](#)

[Provide Homework](#)

2. LEARN

2.1 KEY POINTS

Weight is a measure of the heaviness of an object. When we measure the weight of something, we find out how heavy it is. For example: The elephant is heavier than the frog. When we measure the thickness of something, we find out how far it is from one side to the other. We find out how thick it is. For example: The bark of the tree is thicker than a thin stick.

2.2 LEARN MORE

None

3. ENGAGE

3.1 INTEREST GENERATION ACTIVITY

INTRODUCTION TO THE CONCEPT

Activity 1: Introduction to weight*

Materials Required: None

Prerequisites: None

Activity Flow

Introduce the topic – Tell the student that we have seen how we can measure things according to their length. However, everything cannot be measured this way. Sometimes we need to know how heavy or light a thing is. For example, a table is heavier than a book, and a book is heavier than a pencil. Weight is a measure of how heavy or light an object is. We are now going to learn about measuring weight!

3.2 CONCEPT INTRODUCTION ACTIVITIES

CONCEPT OF THICK & THIN, HEAVY & LIGHT

Activity 2: Understanding the concept of ‘Thick’ and ‘Thin’*

Materials Required: Chalk, pencil, thick candle, thin birthday candle, pen, paintbrush, thick bound book and a thin book.

Prerequisites: None

Activity Flow

Let's all sing along a rhyme. Students can be encouraged to show actions as they sing.

ROLLY POLLY ROLLY POLLY

Rolly polly roly polly
Big, big, big
Rolly polly roly polly
Small, small, small
Rolly polly roly polly
Tall, tall, tall
Rolly polly roly polly
Short, short, short
Rolly polly roly polly
Thick, thick, thick
Rolly polly roly polly
Thin, thin, thin

Objects can be thick or thin. Let us take a look at various objects and compare them against each other and then identify which one is thick and thin. The teacher can demonstrate various objects like chalk and pencil, thick candle and thin birthday candle, pen and paintbrush, thick bound book with many pages and a thin book with few pages. Let the children touch and feel the objects.

Question: Name some things around you that are thick and thin?

Activity 3: Understanding 'Heavy' and 'Light'*

Materials Required: Rock, piece of wood, mobile phone, brick, any seeds (Kidney beans, tamarind seeds) one bag, feather, doll, leaf, basketball

Prerequisites: None

Activity Flow

The teacher can demonstrate the difference between heavy and light by comparing two objects. Place the paired objects to be compared on a table and guide the children to feel, carry and observe infer accurately which of the two objects is heavier and lighter in each use case. Comparisons can be made between the following objects:

A rock and a piece of wood
Mobile phone and a brick
One seed versus a bag of seeds
A feather and a cloth doll
A leaf and basketball

A chalk versus a box of chalk

The teacher can use any objects that are easily available.

3.3 LET'S DISCUSS: RELATE TO DAILY LIFE*

1. Used by hawkers, in supermarkets, vegetable markets to weigh things.
2. Tell the student that there are different kinds of weighing balances – a Pan Balance, Spring Balance, Kitchen Scale, and Weighing Machine
3. Weighing machine is used to weigh ourselves, luggage etc.

4. EXERCISES & REINFORCEMENT

4.1 REINFORCEMENT

Activity 4: Make a guess-Heavier or Lighter*

Materials Required: NA

Prerequisites: NA

Activity Flow

Let the children make a guess, which among the following pairs is heavier or lighter.

- Elephant and watermelon
- Doll and school bag
- Mobile phone and box of crayons
- 1 carrot and a coconut

Activity 5: Do it yourself balance scale

Materials Required: Cloth hanger, thread, two paper cups with holes punched, small objects-beads/seeds/chalks/pencils/erasers/blocks.

Prerequisites: NA

Activity Flow

Teachers can make a balance scale using a cloth hanger, thread and paper cups and can have children weigh out small objects. Hang the balance on the door handle or a hook and allow them to explore it. Teacher can guide the child's hands to find the two cups. Tell them that they would need to place the objects to be weighted in these cups and the cup that has the heavier object goes down while the cup with the lighter object rises up. This is known

as a pan balance and is mostly used by fruits and vegetable vendors to weigh objects. Allow students to explore using other small objects.

Teaching Tips:

If there are any additional teaching tips then utilize this section to mention them.

References:

None

4.2 IMPORTANT GUIDELINES*

Exercise Reading

It is very important that the children practice their learnings as well as their Reading. Hence have the children read out the newly learned concepts from their textbooks or other available resources.

Perform Textbook Activity

It is good practice to have the children perform the textbook activities. Your textbook activities might not be accessible hence go through this resource to learn how to make textbook content accessible

Provide Homework

To evaluate their understanding and to help the student revise and implement the new learnt concept ensure to provide them with homework. Students should perform one or two of the questions mentioned above or from the textbook exercises with the teacher in Class and the remaining may be given for homework. Also, ensure that the student knows their special skills linked to independently using their accessible books as it will be critical to doing homework independently.

- Heavy or Light – Compare the weight of the following at home while holding in your hand
 - Empty glass and Glass filled with water
 - A pencil and a pencil box
 - An apple and a watermelon

- Think of 2 things that are of the same size – length and height, but one is heavier than the other.

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