

Weight

Syllabus: Karnataka State Board

Subject: Mathematics

Grade: Second

Textbook Name: Mathematics-Text cum Workbook(Revised)-Second Standard

Chapter Number & Name: 10. Weight

1. OVERVIEW

1.1 OBJECTIVE & PREREQUISITES

Objective

- To compare heavy and light objects.

Prerequisite Concept

- Numbers
- Counting

Refer to VE_TIK_Math_G1-16-Weight

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*Kindly Note: Activities marked with * are mandatory*

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2. LEARN

2.1 KEY POINTS

To introduce the concept, we simply practice comparing weights by holding different objects in our hands. Weight is a measure of how heavy or light an object is.

2.2 LEARN MORE

None

3. ENGAGE

3.1 INTEREST GENERATION ACTIVITY

INTRODUCTION TO THE TOPIC

Activity 1: Story-Goldilocks and the Three Bears*

Materials Required: None

Prerequisites: None

Activity Flow:

Teachers can tell the following story to children. Teachers can use voice modulation to make the story interesting for students.

Once upon a time, there was a little girl named Goldilocks. She went for a walk in the forest. Pretty soon, she came upon a house. She knocked and, when no one answered, she walked right in.

At the table in the kitchen, there were three bowls of porridge. Goldilocks was hungry. She tasted the porridge from the first bowl.

"This porridge is too hot!" she exclaimed.

So, she tasted the porridge from the second bowl.

"This porridge is too cold," she said.

So, she tasted the last bowl of porridge.

"Ahhh, this porridge is just right," she said happily and she ate it all up.

After she'd eaten the three bears' breakfasts, she decided she was feeling a little tired. So, she walked into the living room where she saw three chairs. Goldilocks sat in the first chair to rest.

"This chair is too big!" she exclaimed.

So she sat in the second chair.

"This chair is too big, too!" she whined.

So she tried the last and smallest chair.

"Ahhh, this chair is just right," she sighed. But just as she settled down into the chair to rest, it broke into pieces!

Goldilocks was very tired by this time; she went upstairs to the bedroom. She lay down in the first bed, but it was too hard. Then she lay in the second bed, but it was too soft. Then she lay down in the third bed and it was just right. Goldilocks fell asleep.

As she was sleeping, the three bears came home.

"Someone's been eating my porridge," growled the Papa bear.

"Someone's been eating my porridge," said the Mama bear.

"Someone's been eating my porridge and they ate it all up!" cried the Baby bear.

"Someone's been sitting in my chair," growled the Papa bear.

"Someone's been sitting in my chair," said the Mama bear.

"Someone's been sitting in my chair and they've broken it to pieces," cried the Baby bear.

They decided to look around some more and when they got upstairs to the bedroom, Papa bear growled,

"Someone's been sleeping in my bed."

"Someone's been sleeping in my bed, too" said the Mama bear.

"Someone's been sleeping in my bed and she's still there!" exclaimed the Baby bear.

Just then, Goldilocks woke up. She saw the three bears. She screamed, "Help!" And she jumped up and ran out of the room.

Goldilocks ran down the stairs, opened the door, and ran away into the forest. She never returned to the home of the three bears.

Teachers can then ask if they think the papa bear was the heaviest and if the baby bear was the lightest. Get all your students' attention to some other objects in the story that are described as big, small and ask the children to name other things that might be heavy or light.

3.2 CONCEPT INTRODUCTION ACTIVITIES

HEAVY AND LIGHT

Activity 2: Comparison of heavy and light*

Materials Required: Piece of paper & eraser, cotton, iron nail, book, leaf, apple, spoon, balloon, rubber ball and a box to hold the above mentioned objects.

Prerequisites: None

Activity Flow

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. Also demonstrate the following activity in the class. Place a small piece of paper on the child's palm and ask them to blow. The paper flies off. Now place an eraser on their palm and ask them to blow. The eraser stays in the palm. The piece of paper is lighter than the eraser and so it fell down on blowing. The students can also continue doing this activity using thread and pencil, Cotton & iron nail, Leaf & eraser.

Ask the student if they would like to try an interesting activity. Give them a box with different objects like – a book, a leaf, an apple, a spoon, a balloon, rubber ball etc. Guide them to feel and observe to infer accurately which of the two objects is heavier and lighter in each case by lifting them in their hands.

Activity 3: Make a comparison between quantity and heaviness*

Materials Required: School bags/baskets & books/apples/balls.

Prerequisites: None

Activity Flow

The following activities will help students link the quantity and heaviness.

Variation1: Encourage children to compare and make note of the increasing weight as they keep the books one by one inside the school bag. Similarly removing the books out of the bag one by one and making sure that the bag is getting lighter. Use the words heavy – light repeatedly and confirm their difference.

Variation 2: Invite students to pick up an empty bag and feel the same in terms of weight. Fill one bag completely with books and the other with few books. Allow students to try and lift each bag. Take a few books from the bag full of books and add them to the other one,

leaving roughly the same number of books in each bag. Invite students to lift the bags again to understand how the quantity has affected the weight.

4.2 LET'S DISCUSS: RELATE TO DAILY LIFE

How heavy something is, is nothing but weight. We use scales to measure weight in our daily life. One needs to check their weight to maintain a healthy life. While travelling in an aircraft there is a limitation of weight each passenger needs to carry. A passenger lift has a weight limitation. Size and weight are not always related and that big objects can sometimes be light and that small objects can sometimes be heavy.

4. EXERCISES & REINFORCEMENT

4.1 REINFORCEMENT ACTIVITIES

Activity 4: Take a guess and tell out the weight of objects *

Materials Required: None

Prerequisites: None

Activity Flow

Make a guess – Heavier or Lighter.

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

Activity 5: Compare the weight of objects by holding*

Materials Required: Glass, water, pencil, pencil box, apple, watermelon

Prerequisites: None.

Activity Flow

Heavy or Light – Compare the weight of the following while holding in your hand

- Empty glass and Glass filled with water
- A pencil and a pencil box
- An apple and a watermelon

Activity 6: Think & Answer

Materials Required: None

Prerequisites: None

Activity Flow

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

Teaching Tips:

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

References:

https://www.dltk-teach.com/rhymes/goldilocks_story.htm

<https://education.seattlepi.com/ideas-teaching-concepts-heavy-light-kindergarteners-3761.html>

Perception Development Activities-(For children 3-7 years)-Teacher's guide by Dr T Padmini.
XRCVC-Measurement-Weight-Grade1-5(Maths)

4.2 IMPORTANT GUIDELINES

Exercise Reading

It is very important that the children practice their learning 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

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