

# Measuring Lengths and Heights

## Common Core Standard:

2.MD.A.1 – Measure and estimate lengths using appropriate tools.

## Lesson:

In this lesson, students will learn how to accurately measure and estimate the lengths and heights of various objects using different measuring tools. They will apply these skills to real-life situations, such as planning furniture arrangements or determining space requirements.

## Objective:

By the end of this lesson, students will be able to:

- Accurately measure the length and height of objects using rulers, measuring tapes, and yardsticks.
- Estimate the lengths and heights of objects before measuring.
- Record measurements in standard units (inches, centimeters).
- Apply measurement skills to plan the arrangement of furniture or objects within a space.

## Materials:

- Rulers (inches and centimeters)
- Measuring tapes
- Yardsticks
- Chart paper
- Markers
- Paper and pencils
- Objects to measure (e.g., books, desks, chairs, walls)
- Worksheets for recording measurements
- Floor plan templates for space planning project

## Safety Precautions:

- Ensure that all measuring tools are handled properly to avoid accidents.
- Remind students to keep rulers and measuring tapes away from faces and store them safely after use.
- Supervise the use of larger tools like yardsticks to prevent injury.

## Procedures:

### Day 1:

1. **Introduction (15 minutes)**
  - Start with a class discussion on why measuring is important in real life (e.g., arranging furniture, planning a project).
  - Introduce measuring tools and explain their appropriate use.
  - Define key terms: length, height, estimate.

**2. Demonstration (15 minutes)**

- Demonstrate how to measure the length of a desk using a ruler. Show students how to align the ruler with the object and read the measurement accurately.
- Explain the difference between estimating and measuring.

**3. Guided Practice (30 minutes)**

- Pair students and provide them with various objects to measure (books, pencils, etc.).
- Have students first estimate the length or height of the object and then measure it with the appropriate tool (ruler, measuring tape, or yardstick).
- Have students record both their estimates and actual measurements on their worksheets.

**Day 2: 4. Measuring Larger Objects (30 minutes)**

- Demonstrate how to use a measuring tape for measuring larger objects like chairs or the classroom door.
- Allow students to practice measuring larger items in the classroom.

**5. Space Planning Project (30 minutes)**

- Provide students with a floor plan template and have them plan where to place furniture by measuring available space.
- Students should use their measuring skills to ensure furniture will fit within the designated space.

**6. Review and Class Discussion (15 minutes)**

- Have students compare their estimates with actual measurements and discuss any discrepancies.
- Lead a class discussion on how measurement skills are used in real life (e.g., construction, cooking, organizing spaces).

**Note: Clean-up**

- Have students help clean up by neatly storing measuring tools and ensuring no objects are left out.
- Ensure all measuring tapes are retracted, rulers are put away, and charts are stored safely.
- Encourage students to dispose of used paper and worksheets in the recycling bin.