

LESSON PLAN

SPECIFIC OBJECTIVES

The students learn about

- ✧ history of transport
- ✧ need for measurement
- ✧ concept and definition of measurement
- ✧ need for standardisation of units
- ✧ devices used for measuring length
- ✧ motion and rest; types of motion
- ✧ multiple motions

TEACHING AIDS

Pictures/charts/models/animation on cart pulled by horses, bullocks, etc.; train, bus, ship, aeroplane, etc.; personal units of measurement; devices for measuring length; multiples and submultiples of SI units of length, mass and time. Car moving on – straight road, curved road; pendulum clock, swing; giant wheel, motion of planets around the sun; drill machine making hole, etc.

LESSON PLAN

- ✧ The teacher will start the chapter with Gear Up and will ask the students to answer the questions given in the section.
- ✧ The teacher should discuss the means of transport since early man to modern time.
- ✧ The teacher should tell the concept of measurement and unit and emphasise on the necessity of measurement.
- ✧ Teacher should discuss about various measuring units used in ancient times (as given in chapter).
- ✧ Students should be asked to perform Activity 1 in order to measure the length of a table using handspan so as to get familiar to the method of using personal units.
- ✧ Teacher should discuss the need for standardisation of units.
- ✧ Teacher should explain the metric system and the international system of units.

- ❖ Teacher should explain the multiples and submultiples of units and how they are used.
- ❖ For more clear understanding of SI units and their uses in measurements, the teacher should make students perform Activities 2 and 3.
- ❖ Teacher should discuss the common devices used for measuring length.
- ❖ Teacher should explain the correct method of measuring the dimensions of an object using a scale.
- ❖ Teacher should explain how to measure the length of a curved line by using a thread and a divider.
- ❖ Teacher should also perform Activity 4 in the class.
- ❖ The teacher should explain motion and rest and their expression as relative terms with the help of Activity 5.
- ❖ Teacher should discuss different types of motions with the help of suitable examples.
- ❖ Students should also be asked to solve Check Points 1, 2 and 3.
- ❖ At last, the teacher will sum up the lesson by going through the points given under the head 'Wrap Up Now'.
- ❖ The teacher will help the students to solve the questions given in exercises under the head 'Practice Time' and will also discuss the topics given under the head 'Formative Tasks'.

BOOST UP

- ❖ Teacher should also discuss the drawbacks of using ancient measuring units, i.e., angul, handspan, cubit, foot, etc.
- ❖ Students should also be asked to tell the different units used for measuring different fundamental quantities. They should also be asked to tell multiples and submultiples of units.
- ❖ The teacher should write names of different kinds of motions and ask the students to give two examples of each.

EXPECTED LEARNING OUTCOMES

The students understand and know the

- ❖ means of transport since early age till today.
- ❖ importance of measurement.
- ❖ different units of measurement used in ancient times.
- ❖ metric system and SI units.
- ❖ multiples and submultiples of SI units.
- ❖ rest and motion as relative terms.
- ❖ different kinds of motion and multiple motions in one action.

EVALUATIVE QUESTIONS

The teacher may ask the following questions for evaluating the understanding of students:

1. Why is measurement necessary in our daily life?
2. What is the difference between angular and handspan?
3. What are the SI units of length and mass?
4. Why are rest and motion said to be relative terms?
5. Which type of motion is of a giant wheel and the planets moving around the sun? Why?
6. Define oscillatory motion with one example.
7. What is meant by multiple motions?