

LESSON PLAN

SPECIFIC OBJECTIVES

- The students will learn about
- ✧ production of sound
 - ✧ different types of musical instruments
 - ✧ propagation of sound, speed of sound
 - ✧ structure and functioning of human ear
 - ✧ vibration and characteristics of sound
 - ✧ music and noise
 - ✧ measurement of sound and noise pollution

TEACHING AIDS

Pictures/charts/models/animations on string musical instruments; percussion musical instruments; wind musical instruments, keyboard musical instruments; human larynx and the structure of human ear.

LESSON PLAN

- ✧ Teacher will start the chapter by going through the points given in 'Know these points before you start' section.
- ✧ Teacher will explain the process of production of sound by living and nonliving things and demonstrate activity given in the chapter.
- ✧ Teacher will discuss different types of musical instruments such as string, percussion, wind, keyboard and electronic instruments.
- ✧ Teacher will explain the production of sound by human beings by demonstrating activity given in the chapter.
- ✧ Teacher will ask students to solve Check Point 1.
- ✧ Now, teacher will explain the propagation of sound in gases, liquids and solids by demonstrating related activities given in the chapter.

- ✧ Teacher will discuss speed of sound in gases, liquids and solids and also the factors affecting it.
- ✧ Teacher will explain the structure and functioning of human ear.
- ✧ Now, teacher will ask students to solve Check Point 2.
- ✧ Teacher will discuss the characteristics of sound by explaining the terms vibration, amplitude, frequency, time period, etc. of sound and their SI units.
- ✧ Teacher will give some numerical problems to students to solve for clear understanding of terms like time period, frequency, etc of sound.
- ✧ Now, teacher will explain relationship between amplitude of vibrations and loudness of sound, which causes hoarse or sharp voice.
- ✧ Teacher will also discuss the relationship between frequency or pitch of vibrations and shrillness or hoarseness of voice.
- ✧ Teacher will define audible range of sound and discuss audible range of human beings and other animals.
- ✧ Then, teacher will differentiate between music and noise.
- ✧ Teacher will discuss the measurement of level of sound of different objects and activities as well as its SI unit.
- ✧ Teacher will discuss noise pollution, its harms and ways to control it.
- ✧ Now, teacher will ask students to solve Check Point 3.
- ✧ Teacher will make students revise the new terms given under the head 'Know These Terms'.
- ✧ Finally, teacher will help students to solve the questions given in exercises under the head 'Practice Time' and 'Think Zone'.

BOOST UP

- ✧ Teacher should demonstrate and explain activities given in the chapter.
- ✧ Teacher should discuss the information given under the head 'Something More'.
- ✧ Teacher should discuss the conversation of Annu and Mannu given in between the topics.
- ✧ Teacher should discuss the facts given in the table.
- ✧ Teacher should encourage students to collect pictures of string, percussion, wind, keyboard and electronic musical instruments.
- ✧ Teacher should discuss the harms of noise and more ways to reduce noise pollution.
- ✧ Teacher should discuss the care and health issues related to ear.

EXPECTED LEARNING OUTCOMES

The students know about

- ✧ sound and production of sound.
- ✧ different kinds of musical instruments.
- ✧ sound production in humans.

- ✧ propagation of sound in different mediums.
- ✧ speed of sound in different mediums and factors affecting it.
- ✧ structure and functioning of human ear.
- ✧ loudness and shrillness of sound.
- ✧ audible range of humans and other animals.
- ✧ music and noise.
- ✧ measurement of sound level and noise pollution.

EVALUATIVE QUESTIONS

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

1. How is sound produced?
2. Write two names each of wind and string instruments.
3. In which medium is the speed of sound highest and lowest?
4. Define propagation of sound.
5. What is larynx?
6. What are different parts of human ear?
7. What is the relationship between frequency of vibrations shrillness of voice?
8. List some control measures of noise pollution.