

Lesson Plan

Grade: Five	Subject: Science	Term: 2 nd	Time: 40min
Teacher's Name: _____		Week: 7	Day: 1
Chapter 6: Light and Sound		Topic: Reflection of Light	

Objective(s):

At the end of this period, the students will be able to:

- Demonstrate that shiny surfaces reflect light better than dull surfaces.

Resource Materials:

Chalk/marker, white/blackboard, Science Textbook

Warm-up Activities

5mins

Before beginning the lesson, ask students to say "Tasmiya."

Ask them: What do you know about shadows? Wait for their responses. Appreciate them for good responses.

Teaching and Learning Activities:

25mins

- Write the topic name 'Reflection of Light' on the board.
- Tell the students today we will learn about reflection of light.
- Tell students light travels from a luminous object.
- **Reflection of Light:** The phenomenon of bouncing back of light rays after striking the surface of an opaque object is termed as reflection of light.
- Tell students reflection helps us to see things.
- When light bounces off from a surface and reaches our eyes, we become able to see that surface.
- There is no reflection in dark, that's why we cannot see in dark.
- Tell students some surfaces reflect more than others.
- If the surface is smooth and shiny, like mirror or polished, metal, the light rays will reflect at the same angle as it hits the surface.
- This is called regular reflection in different direction.
- Tell them when the light rays fall on an unpolished or dull, surface such as carpet, brick floor etc., the light reflects.
- Ask the students to open their textbooks and do the activities.
- Check their work and appreciate them for good work.

Review:

3mins

Explain the main points about reflection of light.

Evaluation:

5mins

To check the understanding of students, ask them:

- What is reflection?
- Name some reflecting surfaces.

Homework:

2mins

Ask students to learn the topic.

Lesson Plan

Grade: Five	Subject: Science	Term: 2 nd	Time: 40min
Teacher's Name: _____		Week: 7	Day: 2
Chapter 6: Light and Sound		Topic: Sound	

Objective(s):

At the end of this period, the students will be able to:

- Describe and demonstrate how sound is produced by a vibrating body.

Resource Materials:

Chalk/marker, white/blackboard, Science Textbook, Worksheet

Warm-up Activities

5mins

Before beginning the lesson, ask students to say "Tasmiya."

Ask them: What do you know about reflection of light? Wait for their responses.

Appreciate them for good responses.

Teaching and Learning Activities:

25mins

- Write the topic name 'Sound' on the board.
- Tell the students today we are going to learn about sound.
- Tell students we hear different sounds. Some of them are high while some are low.
- Have you ever thought how they are produced? Let them respond.
- Tell students sound is a form of energy that is produced when something vibrates.
- Vibrations are back and forth movement of particles.
- When an object vibrates, it causes the air particles to move. These air particles bump into each other continuously.
- This continuous bumping produces a sound wave. These sound waves reach our ears and we hear them as sound.
- Some sounds such as chirping of birds and sound produced by music instruments are pleasant to hear.
- Some sound such as honking of vehicles, ringing school bells, working loud speakers etc., are unpleasant sounds. Ask the students to open their textbooks and do the activity.

Review:

3mins

Explain the main points about sound.

Evaluation:

5mins

To check the understanding of students, ask them:

- What is sound?
- What are vibrations?

Homework:

2mins

Ask students to learn the topic and solve the given worksheet.

Worksheet

Q1. Define vibration.

Q2. What is sound?

Q3. What is sound wave?

Q4. How is sound produced?

Q5. Differentiate between pleasant and unpleasant sounds.

Lesson Plan

Grade: Five	Subject: Science	Term: 2 nd	Time: 40min
Teacher's Name: _____		Week: 7	Day: 3
Chapter 6: Light and Sound		Topic: Speed of sound, Intensity of Sound	

Objective(s):

At the end of this period, the students will be able to:

- Define and describe the intensity of sound with examples.

Resource Materials:

Chalk/marker, white/blackboard, Science Textbook, Worksheet

Warm-up Activities

5mins

Before beginning the lesson, ask students to say "Tasmiya."

Ask them: What is sound? How is it produced? Wait for their responses.

Teaching and Learning Activities:

25mins

- Write the topic name 'Speed of sound' on the board.
- Tell the students today we will learn about speed of sound and intensity of sound.
- Tell them, first we will discuss about speed of sound. Speed of a sound wave depends on the type of medium through which it travels.
- Sound waves travel the fastest in solids than liquids.
- Sound waves travel the slowest in gases.
- Speed of a sound wave can also be affected by the density, temperature etc.
- Now write 'Intensity of sound' on the board.
- Allah (SWT) has blessed us with ears which can differentiate different sounds.
- Different sounds have different intensities.
- Intensity of sound depends upon the amplitude of the sound, distance from the source and the surface area of vibrating body
- It is measured in decibels.
- The sounds with greater intensities will be louder and vice versa.
- The loudest natural sound on earth is of erupting volcano.
- Ask students to open their textbooks and do activity.

Review:

3mins

Explain the main points about intensity of sound and speed of sound.

Evaluation:

5mins

To check the understanding of students, ask them:

- What is intensity of sound?
- How is intensity of sound measured?
- On what factors intensity of sound depends?

Homework:

2mins

Ask students to learn the topic, and solve the given worksheet.

Worksheet

Write the factors on which speed of sound depends.

1. _____
2. _____
3. _____
4. _____
5. _____

What is sound?

What is intensity of sound?

Factors on which intensity of sound depends:

1. _____
2. _____

Lesson Plan

Grade: Five

Subject: Science

Term: 2nd

Time: 40min

Teacher's Name: _____

Week: 7

Day: 4

Chapter 6: Light and sound

Topic: Speed of Sound in Solids, Liquid and Gases

Objective(s):

At the end of this period, the students will be able to:

- Identify variety of materials through which sound can travel.
- Identify that speed of sound differs in solids, liquids and gaseous medium.

Resource Materials:

Chalk/marker, white/blackboard, Science Textbook

Warm-up Activities

5mins

Before beginning the lesson, ask students to say "Tasmiya."

Ask them: What do you know about intensity of sound? Wait for their responses.

Teaching and Learning Activities:

25mins

- Write the topic name 'Sound travels through solids, liquids and gases' on the board.
- Tell students sound waves can travel through all mediums (solids, liquids and gases).
- The speed of sound varies in different mediums.
- It travels the fastest in solids because the particles of solids are closer and transfer of energy from particle to particle is easier and faster.
- It travels the slowest in gases because particles are far apart in gases and transfer of energy is slower.
- Tell students sound energy travels about four times faster in water than in air.
- The speed of sound in air is 343 meters per second.
- Now write 'Sound cannot travel through a vacuum' on the board.
- A vacuum is absence of air or any matter.
- If there is no matter in vacuum that means there is no particle in it.
- Sound cannot travel through vacuum because it needs particles to transfer energy and vacuum does not have any particle.
- So, we cannot hear anything in vacuum.
- Outer space is all vacuum. It means we cannot hear anything in space.
- If there is any crash or any explosion in space, we cannot hear it.
- Lots of explosions are occurring on Sun but we cannot hear them. Ask students why? Let them respond.
- Tell them because there is vacuum between the Sun and earth.
- Ask students to open their textbooks and do activity.

Review:

3mins

Explain the main points about how sound waves travel in solids, liquids and gases.

Evaluation:**5mins**

To check the understanding of students, ask them:

- How sound waves travel?
- Does sound need a medium to travel?
- Why cannot sound travel in vacuum?

Homework:**2mins**

Ask students to learn the topic.

Lesson Plan

Grade: Five	Subject: Science	Term: 2 nd	Time: 40min
Teacher's Name: _____		Week: 7	Day: 5
Chapter 6: Light and Sound	Topic: Noise Harmful Effects of Noise on Human Health		

Objective(s):

At the end of this period, the students will be able to:

- Define noise and its harmful effects on human health.

Resource Materials:

Chalk/marker, white/blackboard, Science Textbook, Worksheet

Warm-up Activities

5mins

Before beginning the lesson, ask students to say "Tasmiya."

Ask them: How sound travels through different mediums? Wait for their responses.

Teaching and Learning Activities:

25mins

- Write the topic name 'Noise and Harmful Effects of Noise on Human Health' on the board.
- Tell students sounds are result of different vibrations.
- Some vibrations have regular pattern while some have irregular pattern.
- Vibrations that have regular pattern produce pleasant sounds. Pleasant sounds are good to hear. Examples include chirping of birds, etc.
- Vibrations that have irregular pattern produce unpleasant sounds. Unpleasant sounds are bad to hear.
- Examples include honking of vehicles, thundering of clouds, ringing of school bells, etc.
- **Noise:** Unpleasant sounds are called noise.
- Different unpleasant sounds in environment cause noise pollution.
- Now write 'Harmful effects of noise on human health' on the board.
- Tell students noise pollution has adverse effects on humans as well as animals.
- It can cause sleep disorders in humans.
- It can cause hearing problems.
- It can also cause heart problems.
- It causes distraction within navigation system of animals that use sound for travelling.
- It disturbs during study.
- Headache and high blood pressure.

Review:

3mins

Explain the main points about the noise and harmful effects of noise on human health.

Evaluation:**5mins**

To check the understanding of students, ask them:

- What are pleasant sounds? Give examples.
- What are unpleasant sounds? Give examples.
- What is noise?
- What are effects of noise on human health?

Homework:**2mins**

Ask students to solve the given worksheet. Write the answer of Q2 (v) of Exercise in their notebooks.

Worksheet

Q1. Look at the list and separate pleasant and unpleasant sounds.

Blowing wind	Thunder	Bomb explosion	Sound of piano	Bang
Whispering	Cat's meow	Roar	Beep	Honk

Pleasant sounds	Unpleasant sounds

List some effects of noise pollution from your surroundings.

1. _____
2. _____
3. _____
4. _____
5. _____