Lesson Plan

Grade: Four	**Subject:** Science	**Term:** 2nd	**Time:** 40min
Teacher's Name: _____		**Week:** 5	**Day:** 1
Chapter 5: Forms of Energy and Energy Transfer		**Topic:** Heat Energy, Temperature, Thermometer	

Objective(s):

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

- Recognize that warmer objects have a higher temperature than cooler objects.
- Investigate the changes that occur when a hot object is brought in contact with a cold object.
- Identify ways to measure temperature and understand its unit.

Resource Materials:

Chalk/marker, white/blackboard, Science Textbook, Spatula, Bowl of hot water, Ice cube, thermometer

Warm-up Activities 5mins

- Before beginning the lesson, ask students to say "Tasmiya."
- Ask them: What is Echo? How sound travels? Wait for their responses.

Teaching and Learning Activities: 25mins

- Write the topic name "Heat Energy" on the board.
- Tell students another form of energy is heat energy. Heat travels from warmer objects to cooler objects. Heat energy is also called thermal energy.
- The sun is the largest source of heat energy. Bring an ice cube to class and put it on table. Ask students to observe it. After few minutes it melts into water. Ask students why does it happen? Let them respond.
- Tell them air around ice cube is warmer and ice cube is cool so heat flows from air to ice cube and it starts melting. This shows heat flows from warmer object to cooler object.
- Now write the topic name 'Temperature' on the board.
- Ask students when you touch a hot cup of tea, how does it feel? Let them respond. Tell them it feels hot.
- Now ask them if you dip your finger in iced water, how does it feel? Wait for their response. Tell them it feels cold.
- Tell students things feel hot or cold because of their temperature.
- Temperature is measure of amount of heat energy present in a substance.
- Ask students how do we check if something is hot or cold. Let them respond.
- Tell them we touch things to check the hotness or coldness of objects.

- Tell students to check the exact temperature of an object we use thermometer. Thermometer is an instrument used to measure temperature. It is usually made of a glass tube that contains a liquid. It has a metal tip at one end.
- Tell students the glass tube of thermometer is marked with divisions. We called these divisions degrees. Temperature is measured in two different scales.
- Celsius scale or Centigrade scale
- Fahrenheit scale
- The metal tip of thermometer touches the object, the heat flows from warmer object to liquid in thermometer. The liquid moves up in thermometer. We check the division on which it stops. The reading is actually temperature of that object.
- Ask students to open their textbook and solve the activity. Tell them heat can also be harmful to us. Find out the ways in which heat can be harmful. Let them respond.
- Bring a thermometer to the class. Guide the students how to measure temperature with a thermometer. Make pair of students. Ask each pair to check each other's temperature. Let them respond.

Review: **3mins**

Explain the main points about heat energy and temperature.

Evaluation: **5mins**

To check the understanding of students, ask them:

- What is heat energy?
- What is temperature?
- How can we measure temperature?

Homework: **2mins**

Ask the students to learn the topic and write the answer of Q3 (iii) of Exercise in their notebooks.

Lesson Plan

Grade: Four	**Subject:** Science	**Term:** 2nd	**Time:** 40min
Teacher's Name: _____		**Week:** 5	**Day:** 2
Chapter 5: Forms of Energy and Energy Transfer		**Topic:** Electrical Energy, Transformation of Electric Energy	

Objective(s):

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

- Describe and demonstrate that electrical energy in a circuit can be transformed into other forms of energy (e.g., heat, light and sound).
- Explain and provide reasoning why a simple electric circuit requires a complete electrical pathway.

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 thermometer? What is heat energy? Wait for their responses.

Teaching and Learning Activities: 25mins

- Write the topic name 'Electrical Energy' on the board.
- Tell students another form of energy is electrical energy. It is produced by flow of charges. It is most widely used energy. We use in almost all home appliances.
- Tell students continuous flow of charges is electric current. Electric current flows from a path called electric circuit. Electric circuit is made of wires through which current flows.
- Now draw a circuit on the board and explain it with its help.
- Tell students electric current flows from battery and passes through wires to bulb and from bulb to other wires and reaches the battery. As a result, bulb glows.
- Tell students when electric current has closed path, the circuit is called complete electric circuit. When electric current does not have closed path, the circuit is called open circuit.
- Ask students to open their textbook and do activity. Ask them to mention types of energy you are using in your daily life.

Review: 3mins

Explain the main points about electrical energy and electric circuit.

Evaluation: 5mins

To check the understanding of students, ask them:

- What is the electrical energy?
- What is an electric circuit?

Homework: **2mins**

Ask the students to write the answer of Q4 (ii) of Exercise in their notebooks and solve the given worksheet.

Worksheet

Q1. Write some uses of electric energy in your daily life.

1._____

2._____

3._____

4._____

5._____

Q2. Answer the following questions.

i) Define electric current.

_____

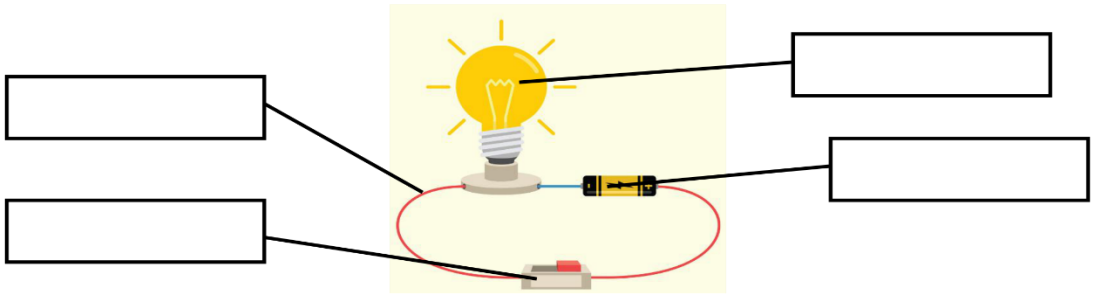
_____

ii) Define electric circuit.

_____

_____

Q3. Label the diagram and explain how electric circuit works.



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Lesson Plan

Grade: Four	**Subject:** Science	**Term:** 2nd	**Time:** 40min
Teacher's Name: _____		**Week:** 5	**Day:** 3
Chapter 5: Forms of Energy and Energy Transfer		**Topic:** Exercise	

Objective(s):

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

- Solve Exercise

Resource Materials:

Chalk/marker, white/blackboard, Science Textbook

Teaching and Learning Activities: 30mins

- Before beginning the lesson, ask students to say "Tasmiya."
- Tell students they are going to solve the exercise of chapter 5.
- Briefly explain all topics and ask questions related to them. Wait for their responses.
- Ask students to open their textbooks and solve MCQ's. Ask them to solve the Q2 in their textbooks. Help them in their work. Check their work.
- Ask the students to open their textbooks and help the students to solve problem activities. Help them if needed.

Review: 0mins

N/A

Evaluation: 5mins

To evaluate the understanding of students, check their work.

Homework: 5mins

Ask students to revise the exercise of chapter 5.

Lesson Plan

Grade: Four	**Subject:** Science	**Term:** 2nd	**Time:** 40min
Teacher's Name: _____		**Week:** 5	**Day:** 4
Chap 4: Matter and Its Characteristics		**Topic:** Revision	

Students Learning Outcomes

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

- Revise all the concept of chapter 4.

Resource Materials:

Science Textbook, Worksheet

Teaching and Learning Activities: **10mins**

- Before beginning the lesson, ask students to say "Tasmiya."
- Tell students today they are going to revise the chapter. So that they can easily prepare for exams.
- Ask students to revise the topics. Guide them if needed.
- Now arrange them, and distribute worksheet among them.
- Ask them to solve worksheet on time.

Review: **10mins**

Check student's worksheet and correct their mistakes.

Evaluation: **0mins**

N/A

Homework: **0mins**

N/A

Worksheet **20mins**

Write below which thing will float or sink.

Leaf	_____	Fork	_____
Coin	_____	Tennis ball	_____
Balloon	_____	Pencil	_____
Needle	_____	Wood	_____

Answer the following questions.

i. Define matter.

_____

_____

_____

_____

ii. Differentiate between mass and volume with examples.

_____

_____

_____

_____

iii. What is density?

_____

_____

_____

_____

iv. What are properties of metals?

_____

_____

_____

_____

v. Draw arrangement of particles in three states of matter.

Lesson Plan

Grade: Four	**Subject:** Science	**Term:** 2nd	**Time:** 40min
Teacher's Name: _____		**Week:** 5	**Day:** 5
Chapter 5: Forms of Energy and Energy Transfer		**Topic:** Revision	

Objective(s):

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

- Revise all the concepts of chapter 5.

Resource Materials:

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

Teaching and Learning Activities: 10mins

- Before beginning the lesson, ask students to say "Tasmiya".
- Tell students today they are going to revise the chapter. So that they can easily prepare for exams.
- Ask students to revise the topics. Guide them if needed.
- Now arrange them, and distribute worksheet among them.
- Ask them to solve worksheet on time.

Review: 10mins

Check student's worksheet and correct their mistakes.

Evaluation: 0mins

N/A

Homework: 0mins

N/A

Worksheet **20mins**

Answer the following questions.

i) Define energy.

_____

_____

ii) Define hydropower.

_____

_____

iii) Define light energy.

_____

_____

iv) How is shadow formed?

_____

_____

v) How is rainbow formed?

_____

_____

Q2. What do you know about electrical energy?

_____

_____

_____

_____