

TERM THREE

WEEKLY LESSON NOTES

WEEK 2

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| Date: 23 rd SEPT, 2022 | DAY: | Subject: Science |
| Duration: 50mins | | Strand: Forces & Energy |
| Class: B7 | Class Size: | Sub Strand: |
| Content Standard: B7.4.3.1. Demonstrate an understanding of the principle of conservation and conversion of energy and their application in real life situations | Indicator: B7.4.3.1.2 Demonstrate the conversion of energy into useable forms. | Lesson: 1 of 2 |
| Performance Indicator: Learners can demonstrate the conversion of energy into useable forms. | Core Competencies: DL 5.3: CI 6.8: DL 5.1: CI 6.6: | |
| References: Science Curriculum Pg. 33-34 | | |
| New words: Conversion, transformation, useable , conservation | | |
| Phase/Duration | Learners Activities | Resources |
| PHASE 1: STARTER | <p>Have learners give examples of forms of energy. Examples:</p> <ol style="list-style-type: none"> 1. Chemical energy (energy stored in the bonds between atoms). 2. Heat energy (energy of the motion of atoms). 3. Electrical energy (energy of moving electrons) <p>Share learning indicators and introduce the lesson.</p> | |
| PHASE 2: NEW LEARNING | <p>Learners in groups discuss how the forms of energy are related and can be converted into any other forms. Example: <i>The electrical energy in wires is converted to light energy when a light switch is turned on.</i></p> <p>Engage learners in an activity to trace the conversion of light energy from the sun to heat and mechanical energy in the body of an organism.</p> <p>Guide learners Illustrate and demonstrate everyday use of conversion of energy and show diagrammatically the conversion of energy to other forms.</p> <p>In a torch, the chemical energy of the batteries is converted into electrical energy, which is converted into light energy and heat energy. Chemical energy → Electrical energy → Light energy + heat energy</p> <p>When a wood burnt, its chemical energy is converted into heat energy and light energy. Chemical energy → heat energy + light energy</p> | Batteries Torch Switch Radio, Charts and drawings showing energy conversion |

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| | <p>In an electric fan the electrical energy from the electricity is converted to kinetic energy. Electrical energy → Kinetic energy.</p> <p>Have learners research for more everyday use of conversion of energy.</p> <p><u>Assessment</u> What is energy transformation?</p> | |
| <p>PHASE 3: REFLECTION</p> | <p>Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.</p> <p>Take feedback from learners and summarize the lesson.</p> <p><u>Homework</u> In a torch, the chemical energy of the batteries is converted into _____ energy, which is converted into _____ energy and _____ energy. In hydroelectric power plants, waterfalls on the turbines from a height. This, in turn, rotates the turbines and generates electricity. Hence, the _____ energy of water is converted into the _____ energy of the turbine, which is further converted into _____ energy.</p> | |

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| Content Standard: B7.4.3.1. Demonstrate an understanding of the principle of conservation and conversion of energy and their application in real life situations | Indicator: B7.4.3.1.3 Know how energy could be conserved for future use in life. | Lesson: 1 of 2 |
| Performance Indicator: Learners can describe how energy could be conserved for future use in life | Core Competencies: DL 5.3: CI 6.8: DL 5.1: CI 6.6: | |
| References: Science Curriculum Pg. 33-34 | | |
| New words: Conversion, transformation, useable , conservation | | |

| Phase/Duration | Learners Activities | Resources |
|------------------------------|---|---|
| PHASE 1: STARTER | Using questions and answers, review learners understanding in the previous lesson. Share learning indicators and introduce the lesson. | |
| PHASE 2: NEW LEARNING | Guide learners to describe how energy is conserved and explain how it can be done for the benefit of humans and other life forms. In groups, have learners discuss ways of conserving energy. They present their findings to the class for discussion. Guide learners to find ways of conserving energy. Example: 1. Use energy efficient light bulbs 2. Iron all dresses in bulk but not in bit. 3. Do not put your television in the standby mode. 4. Turn off your electrical gadgets when they are not in use. 5. Close all doors and windows when using an air conditioner <u>Assessment</u> What is energy transformation? Mention four ways of conserving energy in the home. | Batteries Torch Switch Radio, Charts and drawings showing energy conversion |
| PHASE 3: REFLECTION | Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson. <u>Homework</u> In a loudspeaker, _____ energy is converted into _____ energy. In a microphone, sound _____ energy is converted into _____ energy. In a generator, _____ energy is converted into _____ energy. When fuels are burnt, _____ energy is converted into _____ energy and _____ energy. Write four ways of conserving energy at home. | |