
## SCIENCE SCHEME OF WORK FOR PRIMARY SEVEN TERMS I, II AND III.

| WK | PD | TOPIC | SUB TOPIC | CONTENT | COMPETENCES | METHODS | L/AIDS | L/T ACTS | SKILLS/ VALUES | REFERENCE (S) | REM |
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| **1** | **1** | **THE SKELETAL AND MUSCULAR** | **The Skeleton** | - Definition of a skeleton.<br>- Functions of a skeleton.<br>- The types of skeleton.<br>- The human skeleton<br>- The four main parts of a human skeleton<br>- NOTE: the human skeleton is made up of 206 bones.<br><br>**<u>Types of bones</u>**<br>- Long, short, flat, irregular and where they are found. | **By the end of the lesson, the learner should be able to:**<br>- Define a skeleton<br>- Mention types of a skeleton<br>- List and describe the functions of the skeleton<br>- Draw and name the parts of the human skeleton.<br>- Identify the four major parts of the human skeleton.<br>- List types of bones with examples - Define joints. | Discussion<br>Discovery<br>Demonstration<br>Observation<br>Question and answer<br>Technique | Charts showing the human Skeleton<br><br>Charts showing the types of bones. | Drawing<br>Answering<br>Both oral and written question | - Critical thinking -Effective communication<br>- Appreciation<br>Problem solving | Fountain primary Science Bk 4 pg 54 – 58<br><br>Comprehensive primary Science BK 4 pg 93 – 99<br><br>MK Inter Primary Science Bk 4 pgs 63 – 70<br><br>Basic primary Science BK pgs 72 – 75 | |

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| | | **SYSTEM** | | - types ples of ıch<br><br>**Joints**<br>-<br>- Types of joints<br>(i) joints<br>(ii) Description<br>(iii) Examples<br>(iv) Illustration<br>Functions<br>(v) of the parts<br>Where they are found. | - Mention the two types of joints and give examples including where they are found.<br>- Define muscles<br>- Name the types of muscles and their examples<br>- Identify the functions of the muscles in the body. | | | | | |

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| | | | | **Muscles**<br>- Definition of a muscle. (muscles are fibrous tissues that are attached to bones in the body)<br><br>**Types of muscles**<br>(i) Voluntary and Involuntary<br>(ii) draw voluntary muscles<br>(iii) Examples Of each type of muscles.<br>(iv) Functions of muscles<br><br>**Posture**<br>- Definition<br>- Importance of a good posture<br>- Dangers of bad posture | **By the end of the lessons, the learner should be able to** - Describe a posture<br>- List the importance of a good posture<br>- Identify the dangers of a bad body posture<br>- List diseases and disorders related to the muscles and skeleton including their cause, prevention, control and treatment. | | Charts showing the types of muscles | Drawing<br>Answering<br>Both oral and written question<br><br>Drawing<br>Answering<br>Both oral and written question | - Critical thinking -Effective communication<br>- Appreciation Problem solving<br><br>- Critical thinking -Effective communication<br>- Appreciation Problem solving | Basic primary Science BK pgs 72 – 75<br><br>MK Inter Primary Science Bk 4 pgs 63 – 70<br><br>Fountain primary Science Bk 4 pg 54 – 58 | |

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| | | | | - Diseases and disorders related to the skeletal and muscular system. How to maintain proper skeletal and muscular system. | | | Good Posture | | | | |
| **4** | **1, 2 & 3** | **FORMS OF ENERGY** | **Electricity** | ✦ Definition of energy Forms of energy. ✦ Definition of electricity ✦ Uses of electricity Advantages and disadvantages of electricity ✦ Dangers of using electricity Electricity appliances | **The Learner should be able to:- List down forms of energy**. ✦ Define energy. ✦ Define electricity. ✦ State the uses of electricity. ✦ Identify the advantages and disadvantages of using electricity ✦ Name the appliances that use electricity | ✦ Guided discussion ✦ Question and answer ✦ Discovery | ✦ CB illustrations | ✦ Writing notes ✦ Listing uses of electricity | - Critical thinking - Appreciation - Problem solving ✦ Effective communication | ✦ MK integrated scie bk7 ✦ Fountain integrated scie bk7 A ✦ comprehensive guide for integrated scie bk7 | |

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| | 4 & 5 | | | ✦ Types of electricity.<br>✦ Forms of electricity Static electricity and current electricity<br>✦ Definition of static and current electricity.<br>How to produce static electricity. | **The Learner should be able to:-**<br>✦ Name the forms of electricity and how they are produced<br>✦ Give the difference btn current and static electricity | ✦ Explanation<br>✦ Discussion | ✦ Rulers<br>✦ Paper<br>✦ Textbooks | ✦ Naming forms of electricity | ✦ | ✦ MK integrated scie bk7<br>✦ Fountain integrated scie bk7 A<br>✦ comprehensive guide for integrated scie bk7 | |
| | 6 & 7 | **FORMS OF** | | ✦ Examples of static electricity in<br>✦ nature Lightning<br>✦ and thunder<br>✦ Dangers of lightning How the dangers can be controlled | **The Learner should be able to:-**<br>✦ State 2 examples of static electricity<br>✦ Name the dangers of lightning<br>✦ Explain how lightning can be controlled | ✦ Questioning<br>✦ Discussion<br>✦ Answering | ✦ Textbooks<br>✦ BB sketches | ✦ Taking notes<br>✦ Listening | - Critical thinking<br>- Appreciation<br>- Problem solving<br>✦ Effective communication | ✦ MK integrated scie bk7<br>✦ Fountain integrated scie bk7 A<br>✦ comprehensive guide for | |

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| | 8 | **ENERGY** | | <u>Current electricity</u><br>✦ Definition<br>✦ Types (i.e. DC & AC)<br>✦ Sources of energy for generating electricity (water, sun, fossil fuels), uranium hot springs. | **The Learner should be able to:-**<br>✦ Define current electricity<br>✦ Identify the types of current electricity | ✦ Discussion<br>✦ Explanation<br>✦ Question and answer | ✦ Charts<br>✦ Textbooks | ✦ Writing<br>✦ Answering<br>oral and written qns | - Critical thinking<br>- Appreciation<br>- Problem solving<br>✦ Effective communication | ✦ MK integrated scie bk7<br>✦ Fountain integrated scie bk7 A<br>✦ comprehensive guide for integrated scie bk7 | |

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| | | | | | ✦ Name energy resources for generating electricity | | | | | | |
| **5** | **1** | | | An electric circuit<br>✦ Definition of a circuit ✦ Types of circuits.<br>✦ Parts and uses of the circuit<br>✦ Flow of current and flow of electrons | **The Learner should be able to:-**<br>✦ Define a circuit<br>✦ Identify types of circuits<br>✦ Name the parts and uses of a circuit<br>✦ Differentiate btn flow of current and flow of electricity | ✦ Discussion<br>✦ Explanation | ✦ Cells<br>✦ Bulbs<br>✦ Wires | ✦ Drawing<br>✦ Experimenting | - Critical thinking<br>- Appreciation<br>- Problem solving<br>✦ Effective communication | ✦ MK integrated scie bk7<br>✦ Fountain integrated scie bk7<br>✦ Supplementary science std 8 | |
| | **2 & 3** | | | ✦ Symbols used in an electric circuit<br>✦ Energy changes in a circuit<br>✦ Cells (batteries)/ electrolytes<br>✦ Types of cells (prim & secondary) | **The Learner should be able to:-**<br>✦ Identify the symbols used in a circuit<br>✦ Mention the different energy changes in a circuit<br>✦ Identify types of cells<br>✦ Name the examples | ✦ Question and answer<br>✦ Discussion | ✦ Charts<br>✦ Old cells | ✦ Drawing<br>✦ Writing notes | - Critical thinking<br>- Appreciation<br>- Problem solving<br>✦ Effective communication | ✦ MK integrated scie bk7<br>✦ Fountain integrated scie bk7<br>✦ Supplementary science std 8 | |

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| | | | | | of cells | | | | | | |
| | **4** | | | ✦ Parts of a cell and their uses<br>✦ Calculating the voltage of a circuit | **The Learner should be able to:-**<br>✦ Name the parts of a cell and their uses<br>✦ Do simple calculations on voltage | ✦ Observation<br>✦ Discussion<br>✦ Discovery | ✦ Old cells<br>✦ Charts | ✦ Drawing<br>✦ Writing notes | - Critical thinking<br>- Appreciation<br>- Problem solving<br>✦ Effective communication | ✦ MK integrated scie bk7<br>✦ Fountain integrated scie bk7<br>✦ Supplementary science std 8 | |

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| | **5** | **FORMS OF ENER** | | Bulb<br>✦ Parts and their uses<br>✦ Energy changes in a bulb<br>✦ Reasons why a bulb may fail to work when the circuit is complete | **The Learner should be able to:-**<br>✦ Define a bulb<br>✦ Identify the parts of a bulb and their uses<br>✦ Give the reasons why bulbs may fail to work even when the circuit is complete | ✦ Discussion<br>✦ Explanation<br>✦ Questioning | ✦ Charts<br>✦ Textbooks<br>✦ BB sketches | ✦ Observing<br>✦ Drawing<br>✦ Naming parts of a bulb | ✦ | ✦ MK integrated scie bk7<br>✦ Fountain integrated scie bk7<br>✦ Supplementary science std 8 | |

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| | **6** | **GY** | | ✦ Short circuits (definition)<br>✦ Causes and prevention | **The Learner should be able to:-**<br>✦ Explain short circuits<br>✦ State the causes and prevention of short circuits | ✦ Explanation<br>✦ Discovery | ✦ BB sketches<br>✦ Taking notes | ✦ Taking notes | ✦ | ✦ MK integrated scie bk7<br>✦ Fountain integrated scie bk7<br>✦ Supplementary science std 8 | |
| | **7** | | | ✦ Conductors (definition)<br>✦ Insulators (definition)<br>✦ Uses of conductors and insulators<br>✦ Examples of conductors and insulators | **The Learner should be able to:-**<br>✦ Define conductors and insulators<br>✦ Give examples of conductors and insulators<br>✦ Identify the uses of conductors and insulators | ✦ Discussion<br>✦ Explanation<br>✦ Experimenting | ✦ Wires<br>✦ Charts<br>✦ Plastics | ✦ Carrying out experiments<br>✦ Taking notes | - Critical thinking<br>- Appreciation<br>- Problem solving<br>✦ Effective communication | ✦ Fountain integrated scie Bk7<br>✦ Supplementary science std 8 | |
| | **8** | | | <u>The electric torch</u><br>✦ How a torch works<br>✦ Reasons why a torch may fail to work<br>✦ Plugs and sockets | **The Learner should be able to:-**<br>✦ Identify the parts of a torch and their uses<br>✦ Give reasons why a torch may fail to work<br>✦ State the use of plugs and sockets | ✦ Discussion<br>✦ Question and answer<br>✦ Observation | ✦ Torches<br>✦ Cells<br>✦ Plugs<br>✦ Sockets | ✦ Drawing<br>✦ Doing an experiment | ✦ | ✦ Fountain integrated scie Bk7<br>✦ Supplementary science std 8 | |

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| 6 | 1 & 2 | **FORMS OF ENERGY** | | ✦ Production of electricity – *motors, generators, dynamos, transformers* Measurement of power and electricity | **The Learner should be able to:-** ✦ State 2 ways of generating electricity ✦ Mention how power and electricity are measured | ✦ Explanation ✦ Discussion | ✦ Charts ✦ BB illustrations | ✦ Taking notes ✦ Written exercise | ✦ | ✦ MK integrated ✦ scie Bk7 Fountain integrated ✦ scie Bk7 Comprehensive guide to Integrated Scie | |
| | 3 & 4 | | **Magnetism** | ✦ Definition of a magnet and magnetism ✦ Magnetic and non magnetic materials Alloys – definition | **The Learner should be able to:-** ✦ Definition of a magnet ✦ Differentiate btn a magnet and magnetism ✦ Identify magnetic and non magnetic materials ✦ Explain alloys | ✦ Discussion ✦ Explanation ✦ Questioning | ✦ BB illustrations | ✦ Taking notes ✦ Drawing ✦ Naming materials | - Critical thinking - Appreciation - Problem solving ✦ Effective communication | ✦ MK integrated ✦ scie Bk7 Fountain integrated ✦ scie Bk7 Comprehensive guide to Integrated Scie | |
| | 5 | | | ✦ Types of magnets (natural and ✦ artificial Properties of magnets | **The Learner should be able to:-** ✦ Identify properties of magnets ✦ Name types of magnets | ✦ Discussion ✦ Explanation | ✦ Magnets ✦ Charts | ✦ Taking notes | ✦ | ✦ MK integrated ✦ scie Bk7 Fountain integrated ✦ scie Bk7 Comprehensive guide to Integrated Scie | |

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| | **6** | | | ✦ Permanent and temporary magnets<br>✦ Examples of each type of magnet<br>✦ Magnetic lines of force<br>✦ Magnetic field<br>Illustration of magnetic fields | **The Learner should be able to:-**<br>✦ Differentiate between temporary and permanent magnets<br>✦ Give examples of each type of magnet<br>✦ Define magnetic lines and magnetic field | ✦ Discussion<br>✦ Question and answer<br>✦ Explanation<br>✦ Experimentation | ✦ Charts<br>✦ Magnets | ✦ Taking notes<br>✦ Demonstrating<br>✦ Drawing | - Critical thinking<br>- Appreciation<br>- Problem solving<br>✦ Effective communication | ✦ MK integrated scie Bk7<br>✦ Fountain integrated scie Bk7 | |

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| | **7 & 8** | | | ✦ Ways of making magnets<br>✦ How to improve the strength of electro magnets<br>✦ Ways of demagnetizing a magnet<br>✦ Uses of magnets in daily life<br>Devices which use magnets | **The Learner should be able to:-**<br>✦ Make simple magnets<br>✦ Identify examples of magnets made<br>✦ State the uses of magnets in daily life | ✦ Explanation<br>✦ Experimentation<br>✦ Demonstration | ✦ Magnets<br>✦ Cells<br>✦ Wires<br>✦ Magnetic materials | ✦ Demonstrating<br>✦ Taking notes | - Critical thinking<br>- Appreciation<br>- Problem solving<br>✦ Effective communication | ✦ Fountain integrated scie Bk7<br>✦ Supplementary science std 8 | |
| | **1** | **TOPICAL REVISION QUESTIONS AND DIAGRAMS** | | | | | | | | | |
| **7** | **2** | **THE ENVIRONMENT** | **Energy resources** | ✦ Definition of environment<br>✦ Components of the environment<br>✦ Definition of energy, resource and energy resource<br>✦ Examples of energy resources | **The Learner should be able to:-**<br>✦ Define the tern environment<br>✦ Identify the components of the environment<br>✦ Differentiate btn energy and energy resource<br>✦ Name examples of energy resource | ✦ Explanation<br>✦ Demonstration<br>✦ Discussion | ✦ BB illustrations<br>✦ Sketches | ✦ Taking notes<br>✦ Answering oral and written questions | - Critical thinking<br>- Appreciation<br>- Problem solving<br>✦ Effective communication | ✦ MK integrated scie Bk7<br>✦ Fountain integrated scie Bk7<br>✦ Comprehensive guide to Integrated Scie | |

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| | **3** | | | ✦ Types of energy resources<br>✦ (renewable and non renewable)<br>✦ Examples of each type of energy resource<br>Soil as a resource | **The Learner should be able to:-**<br>✦ Identify the types of energy resources<br>✦ Give the examples of each type of energy resource<br>✦ Explain how soil is a resource | ✦ Discussion<br>✦ Question and answer<br>✦ Explanation | ✦ BB sketches | ✦ Answering oral qns<br>✦ Filling in exercise | ✦ | ✦ MK integrated scie Bk7<br>✦ Fountain integrated scie Bk7<br>✦ Complete junior physics | |
| | **4** | | | ✦ Fossil fuels as resources<br>✦ Definition of<br>✦ fossils Examples of fossils | **The Learner should be able to:-**<br>✦ Explain how minerals are energy resources | ✦ Discussion<br>✦ Explanation | ✦ Charts<br>✦ BB illustrations | ✦ Taking notes | ✦ | ✦ MK integrated scie Bk7<br>✦ Supplementary science BK7 | |

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| | | | | ✦ Uranium as an energy resource | ✦ Define fossils<br>✦ Identify e.gs of fossils | | | | | | |
| | **5** | | | ✦ The sun as an energy resource<br>✦ Water as an energy resource<br>✦ Animals as energy resources<br>✦ Plants as energy resources | **The Learner should be able to:-**<br>✦ Identify the resources in the environment<br>✦ Explain how the examples above act as resources | ✦ Guided discussion<br>✦ Explanation<br>✦ Question and answer | ✦ BB sketches<br>✦ Textbooks | ✦ Naming examples of resources<br>✦ Taking notes | - Critical thinking<br>- Appreciation<br>- Problem solving<br>✦ Effective communication | ✦ MK integrated scie Bk7<br>✦ Supplementary science BK7 | |

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| | 6 & 7 | | | ✦ servation Definition of ✦ conservation Different ways of ✦ conserving differen t energy resources Biogas production | **The Learner should be able to:-** ✦ Define the term conservation ✦ State different ways of conserving resources ✦ Explain how biogas is produced | ✦ Question ing ✦ Explanati on ✦ Discussi on | ✦ BB illustrati ons ✦ Textboo ks ✦ Charts | ✦ Answerin g qn s orally Taking notes ✦ Drawing | ✦ | ✦ MK integrated scie Bk7 ✦ Fountain integrated scie Bk7 | |
| 8 | 1 & 2 | **THE ENVIR ONME NT** | **Controlli ng and managin g changes in the environ ment** | ✦ Conservation of ✦ Importance conservation practices ✦ Environmental degradation of ✦ Examples environmental degradation | **The Learner should be able to:-** ✦ Define conservation ✦ State the importance of conservation practices ✦ Give examples of environmental degradation | ✦ Explanati on ✦ Discussi on ✦ Question and answer | ✦ BB illustrati ons ✦ Textboo ks | ✦ Writing notes | - Critical thinking - Appreciation - Problem solving ✦ Effective communic ation | ✦ MK integrated scie Bk7 ✦ Fountain integrated scie Bk7 | |
| | 3 & 4 | | | ✦ Causes of environmental degradation ✦ Natural and artificial activities ✦ Effects of environmental degradation ✦ Measures to control degradation | **The Learner should be able to:-** ✦ Mention causes of environmental degradation ✦ Identify the effects of degradation ✦ State control measures | ✦ Guided discussio n | ✦ Sketch illustrati ons | ✦ | ✦ | ✦ MK integrated scie Bk7 ✦ Fountain integrated scie Bk7 | |

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| | **5** | | | Agro – forestry | **The Learner should be able to:-** | ✦ Explanation | ✦ Charts | ✦ Answering or al | - Critical thinking | ✦ Introduction to Biology | |
| | | | | ✦ Definition of agro-forestry<br>✦ Importance of agro-forestry<br>✦ Tree nursery beds<br>✦ Activities in the tree nursery bed and care | ✦ Define agro-forestry<br>✦ Identify the importance of agroforestry<br>✦ Explain how to make a tree nursery bed<br>✦ State the activities in the tree nursery bed | ✦ Discussion<br>✦ Demonstration | ✦ Textbooks | and written questions Taking notes<br>✦ | - Appreciation<br>- Problem solving<br>✦ Effective communication | ✦ Supplementary science std8 | |
| | **6** | **THE ENVIR** | | ✦ Harvesting trees<br>✦ Conservation of wood<br>✦ Importance of rural electrification | **The Learner should be able to:-**<br>✦ State methods of harvesting trees for wood<br>✦ Name methods of conserving wood fuel<br>✦ State the importance of rural electrification | ✦ Explanation<br>✦ Discussion | ✦ Charts<br>✦ Textbooks | ✦ Answering or al questions<br>✦ Explanation | ✦ | ✦ Introduction to Biology<br>✦ Supplementary science std8 | |

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| | 7 & 8 | ONMENT | ENVIRONMENTAL DEGRADATION | Land fragmentation and its definition<br>✦ Causes of land fragmentation<br>✦ Soil conservation<br>✦ Importance of soil conservation and practices | **The Learner should be able to:-**<br>✦ Define land fragmentation<br>✦ Identify the causes of fragmentation<br>✦ State importance of soil conservation and practices | ✦ Discussion<br>✦ Explanation | ✦ Textbooks<br>✦ BB illustrations | ✦ Discussing in groups<br>✦ Explanation of terms Taking<br>✦ notes | ✦ | ✦ Fountain integrated science bk7<br>✦ Supplementary science std 8 | |
| 9 | 1 & 2 | | | Wetlands<br>✦ Definition of wetlands<br>✦ Examples of wetlands<br>✦ Importance of wetlands<br>✦ Wetland degradation<br>✦ Why people drain wetlands<br>✦ Effects of wetland drainage<br>✦ How wetlands can be protected | **The Learner should be able to:-**<br>✦ Define the term wetlands<br>✦ Name examples of wetlands<br>✦ State the importance of wetlands<br>✦ Give ways of controlling wetland abuse | ✦ Discussion<br>✦ Question and answer | ✦ CB sketches<br>✦ Textbooks<br>✦ BB illustrations | ✦ Taking notes Answering | - Critical thinking<br>- Appreciation<br>- Problem solving<br>✦ Effective communication | ✦ MK integrated scie Bk7<br>✦ Fountain integrated scie Bk8 | |

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| | 3 | | | ✦ Bio-diversity (definition)<br>✦ Importance of bio-diversity<br>✦ Extinction of endangered<br>✦ species Control of loss of biodiversity | **The Learner should be able to:-**<br>✦ Define bio-diversity<br>✦ State the importance of bio-diversity<br>✦ Give 4 examples of endangered species | ✦ Discussion<br>✦ Explanation<br>✦ Questioning | ✦ Textbooks<br>✦ CB illustrations | ✦ Taking notes<br>✦ Discussing in groups | ✦ | ✦ Supplementary science std 8<br>✦ MK integrated science Bk7 | |
| | 4 & 5 | **THE ENVIRONMENT** | | ✦ Pollution<br>✦ (definition)<br>✦ Pollutants Examples of<br>✦ pollutants Types of pollution<br>✦ (air, water, soil, sound) Effects of pollution. Control measures of pollution | **The Learner should be able to:-**<br>✦ Tell the meaning of pollution<br>✦ Give examples of pollutants<br>✦ State the types of pollution<br>✦ Identify control measures of pollution | ✦ Question and answer technique<br>✦ Discussion | ✦ Polythene bags<br>✦ Chemicals<br>✦ Old bottles and tins | ✦ Answering oral qns<br>✦ Taking notes | - Critical thinking<br>- Appreciation<br>- Problem solving<br>✦ Effective communication | ✦ Supplementary science std 8<br>✦ MK integrated science Bk7 | |
| | 6 | | | ✦ Management of solid wastes<br>✦ 5R's in waste management (Re-use, Reduce, Return, Refuse, Reject) | **The Learner should be able to:-**<br>✦ Define the term recycling<br>✦ Identify ways of waste management using the 5 R's | ✦ Explanation<br>✦ Discussion | ✦ Textbooks<br>✦ Polythene bags<br>✦ Jerrycans | ✦ Defining<br>✦ Answering oral questions | ✦ | ✦ MK integrated scie Bk7 Fountain integrated scie Bk7 | |

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| | **7 & 8** | | | ✦ Way forward to overcome environmental problems in ✦ Uganda Roles of NEMA Community and environmental involvement | **The Learner should be able to:-** ✦ Identify ways to overcome environmental problems in Uganda ✦ State 2 roles of NEMA and roles of the community in environmental management | ✦ Questioning technique ✦ Discussion | ✦ Charts ✦ BB work ✦ Cut outs from newspapers | ✦ Taking notes ✦ Filling in blanks ✦ Answering written questions | - Critical thinking - Appreciation - Problem solving ✦ Effective communication | ✦ MK integrated ✦ scie Bk7 Fountain integrated scie Bk7 | |
| | | **TOPICAL REVISION QUESTIONS AND DIAGRAMS** | | | | | | | | | |

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| **19** | **1** | **MATTER AND ENERGY** | **SIMPLE MACHINES** | - Meaning of machines<br>- Types of machines<br>- Complex machines<br>- Simple machines<br>- Advantages of machines<br>- Terms used in machines (work, force, power) | **The Learner should be able to:**<br>- Explain the term machine<br>- State the different types of machines<br>- State advantages of machines<br>- Describe terms used in machines. | - Explanation<br>- Discussion<br>- | - C/board illustrations | - Taking notes | - Critical thinking<br>- Appreciation<br>- Problem solving<br>- Effective communication | - Comprehensive Primary Science Bk 7. | - |

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| | **7** | | **LEVERS** | - Calculating work done.<br>- Simple machines<br>- Definitions<br>- Terms used in simple machines.<br>- (MA) velocity, ration, efficiency, load, effort, load, arm, effort arm, pivot (fulcrum)<br>- Classification(order) of simple machines<br>- Levers – pulleys<br>- Wheel and axel – wedges<br>- Screws, inclined plane (slope)<br><br>**Levers:**<br>- Definition<br>- Classes of levers (1st 2nd, 3rd class levers)<br>- Characteristics and examples of each class.<br>- Advantages of each class. | **The Learner should be able to:**<br>- Calculate work done in machines<br>- Define different terms used in machines i.e. M.A, V.R Efficiency, load, effort, E.A, L.A<br>- Name the different examples of simple machines.<br>- Define levers<br>- Mention different classes of levers<br>- Identify the examples and characteristics of each class of levers. | - Discussion<br>- Observation<br>- Demonstration | - Charts<br>- C/board illustration<br>- Pulleys wheels gears rollers<br>- Scissors<br>- Pliers<br>- Spades<br>- Knives<br>- Wheel barrow<br>- Metal rods | - Writing<br>- Drawing<br>- Answering oral questions<br>- Demonstrating how machines work | - Critical thinking<br>- Appreciation<br>- Problem solving<br>- Effective communication | - Functional Primary Science Bk 7<br>- Comprehensive Primary Science Bk 7.<br>- New Uganda Primary Integrated Science Bk 7 | - |

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| **20** | **2** | | | - Law of levers<br>- Calculations on levers | **The Learner should be able to:**<br>- State the law of levers<br>- Carry out calculations on levers | - discussion<br>- discovery | - C/board illustration | - Writing exercises on calculations | - | - MK integrated Primary Science Bk 7 | - |
| | **2** | | **INCLINED PLANES** | - **Inclined plane:**<br>- Definition<br>- Examples of inclined planes<br>- Advantages of using slopes/inclined plane<br>- Application in daily life | **The Learner should be able to:**<br>- Define an inclined plane<br>- State examples of inclined planes<br>- Mention advantages of using slopes/inclined planes. | - Explanation - Discussion<br>- Demonstration | - Planks<br>- Strings<br>- Stones<br>- Tables | - Doing practical work | - Critical thinking<br>- Appreciation<br>- Problem solving<br>- Effective communication | - Fountain Integrated Primary Science Bk 7 | - |
| **21** | **2** | **MATTER AND ENERGY** | | - Calculations on inclined planes. | **The Learner should be able to:**<br>- Carry out calculations on planes | - Explanation<br>- Practice drill<br>- Discovery | - Chalk board illustrations and sketches | - Writing exercises | - | - Oxford Primary Science Bk 7 | - |
| | **1** | | **WEDGES** | - **Wedges:**<br>- Definition of wedges<br>- Examples of wedges<br>- Advantages of using wedges<br>- Application of wedges in daily life | **The Learner should be able to:**<br>- Define a wedge<br>- Mention the advantages of using screws<br>- State examples of machines that | - Discussion<br>- Explanation<br>- Observation | - Screws<br>- Charts<br>- Nuts<br>- Bolts<br>- Charts | - Carrying out an experiment<br>- Writing notes<br>- drawing diagrams | - Critical thinking<br>- Appreciation<br>- Problem solving<br>- Effective communication | - Functional Primary Science for Uganda Bk 7<br>- MK integrated Primary Science Bk. 7 | - |

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| | | | | | use screws in daily life. | | | | | | |
| | 1 | | SCREWS | **Screws:**<br>- Definition of screws<br>- Advantages of using screws<br>- Application of screws in daily life | **The Learner should be able to:**<br>- Mention the advantages of using screws<br>- State examples of machines that use screws in daily life | - discussion<br>- explanation<br>- observation | - screws<br>- charts - nuts<br>- bolts<br>- charts | - carrying out an experiment<br>- writing notes<br>- drawing diagrams | - Critical thinking<br>- Appreciation<br>- Problem solving<br>- Effective communication | - MK integrated Primary Science Bk 7<br>- Fountain Integrated Science Bk 7 | - |
| 22 | 4 | | WHEEL AND AXLE | **Wheel and axle:** - Definition | **The Learner should be able to:** | - Explanation<br>- Discussion<br>- Discovery | - Wheel<br>- Bolts<br>- Charts | - Group discussion | - Critical thinking<br>- Appreciation | - Oxford Primary Science Bk 7 | - |

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| | | | | - Examples of wheel and axle eg wind lass, steering wheel, etc<br>- Advantages of using the wheel and axle.<br>- Application of wheels and axle in daily life | - Define a wheel and axle.<br>- Mention examples of machines that use the wheel and axle<br>- Identify the advantages of using the wheel and axle. | | | - Taking notes<br>- Drawing<br>- Answering oral questions | - Problem solving<br>- Effective communication | - Comprehensive Primary Science Bk 7 | |

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| **2 3** | | | **WHEELS AND BELTS** | **Wheels and belts:**<br>- Definition<br>- Examples of machines that use conveyor belts e.g. sewing machines, vehicles, factories, quarries, etc<br>- **Gears/toothed wheels** - Importance<br>- Examples of machines that use gears eg watches, gear box in vehicles, etc<br>- Rotation of two or more gear wheels in contact. | **The Learner should be able to:**<br>- Define conveyor belts<br>- Mention machines that use conveyor belts<br>- Mention examples of machines that use gears/toothed wheels<br>- State the advantage of using conveyor belts, gears and toothed wheels. | - Discussion<br>- Explanation<br>- Demonstration<br>- Observation<br>- Discovery<br>- Application | - Wheels (pulleys)<br>- Rubber bands<br>- Charts<br>- Toothed wheels<br>- chalk boards sketches | - taking notes<br>- drawing diagrams | - Critical thinking<br>- Appreciation<br>- Problem solving | - Comprehensive Primary Science Bk 7<br>- Oxford Primary Science Bk 7 | - |
| | **4** | | **PULLEYS** | **Pulleys**<br>Definition of pulleys<br>- Types of pulleys (single) Fixed, movable pulleys)<br>- Block and tackle<br>- Characteristics of each type<br>- Mechanical advantage of each type<br>- Advantages of using each type<br>- Application of pulleys in daily life<br>- Single fixed pulley (1st class lever) | **The Learner should be able to:**<br>- Define the term "pulley"<br>- Mention examples of pulley types<br>- Describe the characteristics of each pulley system.<br>- Identify the advantage of using any of the given pulley systems.<br>- Calculate for effort on pulley systems. | - Explanation<br>- Discussion<br>- Question and answer<br>- Discovery | - Pulley blocks<br>- Charts<br>- Chalk board illustrations | - Taking notes<br>- Doing some practical work<br>- Demonstrating how pulleys work<br>- Writing an exercise | - Critical thinking<br>- Appreciation<br>- Problem solving | - Functional Primary Science for Uganda Bk 7 - Oxford Primary Science Bk 7 | - |

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| | | | | - Single movable pulley (2nd class lever) | | | | | | | |

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| **24** | **2** | | **FRICTION** | **Friction:**<br>- definition<br>- Types of friction eg: limiting, static<br>- dynamic/rolling<br>- viscosity<br>- advantages/disadvantages of friction<br>- ways of increasing/reducing friction<br>- topical questions | **The Learner should be able to:**<br>- Define friction<br>- Mention the different types of friction<br>- Identify the advantages/disadvantages of friction<br>- State different ways of increasing/reducing friction in machines<br>- Answer the topical questions. | - Discussion<br>- Explanation<br>- Demonstration<br>- Experimentation | - Chart<br>- Bicycle - Rollers<br>- Grease<br>- Oil<br>- Ball bearings | - Observing parts of a bicycle<br>- Taking notes<br>- Drawing diagrams | - Critical thinking<br>- Appreciation<br>- Problem solving | - Functional Primary Science for Uganda Bk 7 - Comprehensive Science Bk 7 | - |

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| | **4** | **BODY SYSTEMS** | **EXCRETORY SYSTEMS** | - Definition of excretion<br>- Excretory organs and their products eg.<br>**A – The skin:**<br>- Structure and function of different parts.<br>- Uses of the skin<br>- Skin diseases - Care for the skin **B – kidneys:**<br>- Structure and function of the kidney parts<br>- Functions of the kidney<br>- Diseases of the kidney & Care of the kidneys | **The Learner should be able to:**<br>- Define the term excretion<br>- Mention the excretory organs and their waste products<br>- Name different parts of the skin and give their functions<br>- Name different parts of the skin and give their functions<br>- Name different parts of the kidney and give their functions<br>- name diseases of the skin and the kidney | - discussion<br>- explanation<br>- question and answer<br>- discussion | - charts<br>- chalk board sketches and illustrations<br>- pupils texts<br>- taking notes<br>- drawing diagrams | - Taking notes<br>- Drawing diagrams<br>- Taking note | - Critical thinking<br>- Appreciation<br>- Problem solving | - Fountain Integrated Primary Science Bk 7<br>- New Uganda Primary Integrated Science Bk 7 | - |
| | **4** | | **EXCRETORY SYSTEM** | **C - The lungs:**<br>- The structure and function of parts of the lungs<br>- Importance of the lungs<br>- Diseases of the lungs - Care for the lungs **D - The Liver:** | **The Learner should be able to:**<br>- Name the different parts of the lungs and give their functions<br>- Identify the diseases of the lungs<br>- State ways of caring for the lungs. | - Explanation<br>- Discussion<br>- Question and answer<br>- Discussion<br>- Explanation<br>- Discovery | - Charts<br>- Model lungs<br>- Pupils texts<br>- Charts<br>- Chalk board sketches | - Taking notes<br>- Drawing and labeling diagrams<br>- Taking notes | - Critical thinking<br>- Appreciation<br>- Problem solving | - Oxford Primary Science Bk 7<br>- MK Integrated Primary Science Bk 7 | - |

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| | | | | - General functions of the liver<br>- Diseases of the liver<br>- Control/prevention of the diseases<br>- Care for the liver. | | | | - Drawing diagrams and labeling | | | |

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| 10 | 1 | FORMS OF ENERGY | **Light** | ✦ Definition of light<br>✦ Sources of light<br>✦ Natural sources of light and examples<br>✦ Artificial sources of light and examples<br>✦ Uses of light | **The Learner should be able to:-**<br>✦ Define the term light<br>✦ Name the different sources of light<br>✦ Give examples of natural and artificial sources<br>✦ State 4 uses of light | ✦ Discussion<br>✦ Question and answer | ✦ Charts<br>✦ CB illustrations | ✦ Taking notes<br>✦ Listing examples of light sources | - Critical thinking<br>- Appreciation<br>- Problem solving<br>✦ Effective communication | ✦ MK integrated<br>✦ scie Bk7 Fountain integrated scie Bk7 | |
| | 2 | | | ✦ Transmission of light – how light travels<br>✦ Experiments on transmission of light | **The Learner should be able to:-**<br>✦ Explain how light travels<br>✦ Carry out simple experiments on transmission of light | ✦ Explanation<br>✦ Experimentation<br>✦ Discovery | ✦ Torches<br>✦ Cells<br>✦ Cardboard<br>✦ CB sketches | ✦ Carrying out experiments<br>✦ Taking notes | ✦ | ✦ MK integrated<br>✦ scie Bk7 Fountain integrated scie Bk7 | |
| | 3 | FORMS OF ENER | | <u>Beams of light</u><br>✦ Types of beams<br>✦ Effects of light on different materials (opaque, translucent and transparent materials) | **The Learner should be able to:-**<br>✦ Define the term “beams” of light<br>✦ Name the types of beams<br>✦ State the effect of light on different materials | ✦ Discussion<br>✦ Explanation<br>✦ Demonstration | ✦ Polythene paper<br>✦ Oil<br>✦ Cells<br>✦ Torches<br>✦ CB illustrations | ✦ Discussing in groups<br>✦ Taking notes | - Critical thinking<br>- Appreciation<br>- Problem solving<br>✦ Effective communication | ✦ MK integrated<br>✦ scie Bk7 Fountain integrated scie Bk7 | |

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| | 4 & 5 | GY | | ✦ Shadows – definition<br>✦ How shadows are formed<br>✦ Characteristics of shadows<br>✦ Eclipses – definition<br>✦ How eclipses are formed. | **The Learner should be able to:-**<br>✦ Define the term "shadow"<br>✦ Explain how shadows are formed<br>✦ Identify the characteristics of shadows | ✦ Discussion<br>✦ Explanation<br>✦ Demonstration | ✦ Charts<br>✦ Torches<br>✦ Cells<br>✦ CB illustrations | ✦ Taking notes<br>✦ Drawing diagrams | - Critical thinking<br>- Appreciation<br>- Problem solving<br>✦ Effective communication | ✦ MK integrated scie Bk7<br>✦ Fountain integrated scie Bk7 | |
| | | | | ✦ What affects the size of shadows | ✦ Explain what shadows are and how they are formed | | | | | | |
| | 6 | | | ✦ Effect of light on shinny objects<br>✦ Types of reflection Laws of reflection<br>✦ Calculations on reflection Importance of reflection. | **The Learner should be able to:-**<br>✦ State the effect of light on shinny objects<br>✦ List 3 laws of reflection<br>✦ Carry out calculations on reflection correctly | ✦ Explanation<br>✦ Question and answer | ✦ Charts<br>✦ CB illustrations | ✦ Taking notes<br>✦ Drawing diagrams | - Critical thinking<br>- Appreciation<br>- Problem solving<br>✦ Effective communication | ✦ MK integrated scie Bk7<br>✦ Fountain integrated scie Bk7 | |

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| | 7 & 8 | | | ✦ Characteristics of images formed in a plane mirror<br>✦ Illustrations on the characteristics of<br>✦ images on a plane mirror<br>Uses of plane mirrors | **The Learner should be able to:-**<br>✦ Identify the characteristics of images formed on a plane mirror<br>✦ State at least 4 uses of plane mirrors in daily life | ✦ Discussion<br>✦ Experimentation<br>✦ Question and answer | ✦ Charts<br>✦ Plane mirrors | ✦ Taking notes<br>✦ Carrying out experiments | - Critical thinking<br>- Appreciation<br>- Problem solving<br>✦ Effective communication | ✦ Complete junior physics<br>✦ Supplementary science std8 | |
| 11 | 1 | FORMS OF | | ✦ Curved mirrors and their examples<br>✦ Characteristics of images on curved mirrors<br>✦ Common uses of curved mirrors in daily life | **The Learner should be able to**:-<br>✦ List the examples of curved mirrors<br>✦ State 2 characteristics of curved mirrors<br>✦ Give at least 2 uses of curved mirrors in daily life | ✦ Explanation<br>✦ Discussion | ✦ Curved mirrors<br>✦ Charts | ✦ Writing notes<br>✦ Listing<br>✦ Drawing | - Critical thinking<br>- Appreciation<br>- Problem solving<br>✦ Effective communication | ✦ Complete junior physics<br>✦ Supplementary science std8 | |
| | 2 | | | ✦ Refraction – definition Effects of refraction of light<br>✦ Experiments on refraction of light<br>Mirages | **The Learner should be able to:-**<br>✦ Explain the term refraction<br>✦ List the effects of refraction of light<br>✦ Carry out simple experiments on refraction of light | ✦ Question and answer<br>✦ Discussion | ✦ Mirrors<br>✦ Charts<br>✦ CB illustrations | ✦ Taking notes<br>✦ Drawing<br>✦ Performing | ✦ | ✦ Complete junior physics<br>✦ Supplementary science std8 | |

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| | **ENERGY** | | | ✦ Explain mirages and state their effects | | | | | | |
| **3** | | | ✦ Lenses – definition<br>✦ Types of lenses and their examples<br>✦ Uses of lenses<br>✦ Differences between lenses. | **The Learner should be able to:-**<br>✦ Explain the meaning of lenses<br>✦ Identify the types of lenses and state their use in daily life<br>✦ Identify the differences between lenses. | ✦ Explanation<br>✦ Experimentation | ✦ Lenses<br>✦ Charts<br>✦ CB illustrations | ✦ Taking notes | - Critical thinking<br>- Appreciation<br>- Problem solving<br>✦ Effective communication | ✦ Complete junior physics<br>✦ Supplementary science std8 | |
| **4** | | | Optical instruments<br>Definition<br>✦ Examples of optical instruments<br>✦ Uses of optical instruments<br>✦ How some of the instruments work | **The Learner should be able to:-**<br>✦ Give examples of some optical instruments<br>✦ Give uses of the named optical instruments and how they work | ✦ Discussion<br>✦ Question and answer | ✦ Some optical instruments<br>✦ CB sketches<br>✦ | ✦ Taking notes<br>✦ Drawing | - Critical thinking<br>- Appreciation<br>- Problem solving<br>✦ Effective communication | ✦ Complete junior physics<br>✦ Supplementary science std8 | |
| **5** | | | ✦ Dispersion of light (spectrum)<br>✦ Meaning of dispersion<br>✦ The rainbow<br>✦ How it is formed | **The Learner should be able to:-**<br>✦ Explain the dispersion of light<br>✦ State the meaning of spectrum<br>✦<br>✦ Explain how a rainbow is formed | ✦ Discussion<br>✦ Experimentation | ✦ Charts<br>✦ CB illustrations | ✦ Taking notes<br>✦ Drawing | - Critical thinking<br>- Appreciation<br>- Problem solving<br>✦ Effective communication | ✦ Complete junior physics<br>✦ Supplementary science std8 | |

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| | **6** | | | ✦ Colours of objects in white light<br>✦ Illustration using the colour wheel<br>✦ Primary, secondary and the complementary colours | **The Learner should be able to:-**<br>✦ State the effect of coloured light on different objects<br>✦ Explain how primary, secondary and complementary colours are formed | ✦ Discussion<br>✦ Experimentation | ✦ Different colours<br>✦ Motor<br>✦ Dry cells | ✦ Drawing<br>✦ Note taking<br>✦ Mixing colours | - Critical thinking<br>- Appreciation<br>- Problem solving<br>✦ Effective communication | ✦ Complete junior physics<br>✦ Supplementary science std8 | |

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| | 7 & 8 | FORMS OF ENERGY | | The pinhole camera<br>▪ Characteristics of images formed in a pinhole camera<br>▪ How it works<br>▪ Making a pin hole camera. | **The Learner should be able to:-**<br>▪ Explain how a pinhole camera is made<br>▪ Name the characteristics of images formed un a pinhole camera<br>▪ Identify the parts of a lens camera and how it works | ▪ Explanation<br>▪ Discussion | ▪ Simple pinhole camera<br>▪ Old photographic camera | ▪ Making simple pinhole camera<br>▪ Notes taking | - Critical thinking<br>- Appreciation<br>- Problem solving<br>▪ Effective communication | ▪ Complete junior physics<br>▪ Supplementary science std8 | |
| 12 | 1 & 2 | | | The human eye<br>▪ The structure and function of the parts<br>▪ Comparison btn the human eye and the camera<br>▪ Comparison of images formed in human eye and plane mirror. | **The Learner should be able to:-**<br>▪ Draw the human eye<br>▪ Name the different parts and give their uses<br>▪ State the similarities and the differences btn a lens camera and human eye | ▪ Guided discussion<br>▪ Explanation | ▪ CB illustrations<br>▪ Chart | ▪ Drawing<br>▪ Taking notes | - Critical thinking<br>- Appreciation<br>- Problem solving<br>▪ Effective communication | ▪ Complete junior physics<br>▪ Supplementary science std8 | |
| | 3 & 4 | | | ▪ Diseases and defects of the eye<br>▪ Prevention and treatment of the defects and diseases<br>▪ Care for the eye | **The Learner should be able to:-**<br>▪ Name the diseases and defects of the eye<br>▪ Explain how to prevent and treat the diseases<br>▪ State how to care for our eyes | ▪ Discussion<br>▪ Explanation | ▪ CB illustrations | ▪ Note taking | - Critical thinking<br>- Appreciation<br>- Problem solving<br>▪ Effective communication | ▪ Complete junior physics<br>▪ Supplementary science std8 | |
| 11 | 9 | INTERDEPENDENCE | ENVIRONMENT | ♠ Definition of environment.<br>♠ Components of environment.<br>♠ Classification of the components according to living and non- living<br>♠ Description of | ♠ Define environment<br>♠ Identify components of environment<br>♠ Describe interdependence.<br>♠ Describe how things depend on each other in our environment | Explanation<br><br>Discussion<br><br>Question and answer | | | | Fountain Primary Science bk 4 Pgs 42 - 51<br><br>Comprehensive Primary Science bk 4 Pg 83 – 87 | |

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| | | **OF**<br><br>**THINGS** | | interdependence<br>- How living things depend on non-living things.<br>- How living things depend on each other.<br>- How animals depend on plants. (seed dispersal)<br>- How plants depend on animals.<br>- How animals depend on each other. (food chain / food web).<br>i. Internal parasites.<br>ii. External parasites.<br>iii. Predators<br>iv. Prey | | Demonstration | | | | MK Inter. Primary Science bk 4 Pgs 47 – 58 | |
| | | | | ✦ \gro forestry<br>- Meaining<br>- Advantages<br>- Ways of Proper wood harvesting<br>- Ways of Proper wood treatment | | ✦ | ✦ | ✦ | - | ✦ | |