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| **PHYSICS FORM 2 SCHEMES OF WORK – TERM 1** |
| **WEEK** | **LESSON** | **TOPIC** | **SUB - TOPIC** | **OBJECTIVES** | **LEARNING/TEACHING ACTIVITIES** | **LEARNING/TEACHING RESOURCES** | **REFERENCES** | **REMARKS** |
| **1** | **1-2** | MAGNETISM  | Magnetism and magnetic materials | By the end of the lesson, the learner should be able to:1. Identify magnetic and non-magnetic materials
 | * Observing attraction and repulsion of magnets
* Identifying the test for magnetic materials
* Describing natural and artificial materials
* Carrying out experiments to identify magnetic and non-magnetic materials
 | * Magnets
* Nails
* Pins
* Wood
* Plastics
* Tins
* Spoons
* Strings
* Razor blade
* Stand
 | * Comprehensive secondary physics students book 2 pages 1-2
* Comprehensive secondary physics teachers book 2 pages 1-5
* Secondary physics KLB students book 2 page
* Principles of physics (M.Nelkom) pages 442-443
* Golden tips physics page 124
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|  | **3-4** | MAGNETISM | Properties of magnets and the law of magnetism | By the end of the lesson, the learner should be able to1. Describe the properties of magnets
2. State the logic law of magnetism
 | * Investigating properties of magnets
* Stating the laws of magnetism
 | * Magnets
* Charts on properties
* Iron fillings
* Strings
* Stand
 | * Comprehensive secondary physics students book 2 pages 1-2
* Comprehensive secondary physics teachers book 2 pages 1-5
* Secondary physics KLB students book 2 page 1-4
* Principles of physics (M.Nelkom) pages 149
* Golden tips physics page 124
 |  |
| **2** | **1-2** | MAGNETISM  | The compass | By the end of the lesson, the learner should be able to1. Construct simple compass
 | * Constructing a simple compass
 | * Pin/screw
* Magnet
* Cork
* Glass top
* Water trough
* Piece of stiff paper
* Razor blade
* Glue
 | * Comprehensive secondary physics students book 2 pages 3-5
* Comprehensive secondary physics teachers book 2 pages 1-5
* Secondary physics KLB students book 2 page 5
* Principles of physics (M.Nelkom) pages 151
* Golden tips physics page 127
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|  | **3-4** | MAGNETISM | Magnetic field patterns | By the end of the lesson, the learner should be able to:1. Describe magnet field patterns
 | * Plotting the field of a bar magnet using a compass and iron filings
 | * A compass
* Iron fillings
* Bar magnets
* Can with lid
* Card board
* Sheet of papers
 | * Comprehensive secondary physics students book 2 pages 3-5
* Comprehensive secondary physics teachers book 2 pages 1-5
* Secondary physics KLB students book 2 page 6-7
* Principles of physics (M.Nelkom) pages 444
* Golden tips physics page 124-125
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| **3** | **1-2** | MAGNETISM | Making magnets by induction and stroking | By the end of the lesson, the learner should be able to make magnets by :1. Induction
2. Stroking
 | * Demonstrating induction
* Magnetizing a steel bar by stroking single and double strikes
* Defining hard and soft magnets
 | * Bar magnets
* Steel bars
* Nails
* Iron bars
 | * Comprehensive secondary physics students book 2 pages 6-7
* Comprehensive secondary physics teachers book 2 pages 1-5
* Secondary physics KLB students book 2 page 19-22
* Principles of physics (M.Nelkom) pages 441-442
* Golden tips physics page 125-126
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|  | **3-4** | MAGNETISM | Making magnets by an electric current | By the end of the lesson, the learner should be able to:1. Magnetize a material by an electric current
 | * Magnetizing a steel bar by an electric current
 | * Insulated wire
* Battery cell
* Steel bar
 | * Comprehensive secondary physics students book 2 pages 8
* Comprehensive secondary physics teachers book 2 pages 1-5
* Secondary physics KLB students book 2 page 23-24
* Principles of physics (M.Nelkom) pages 440
* Golden tips physics page 125-126
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| **4** | **1-2** | MAGNETISM | Demagnetization and caring for magnets | By the end of the lesson, the learner should be able to1. Describe the methods of demagnetizative
2. Describe how to care for magnets
 | * Describing ways of demagnetizing of magnet
* Explaining how to care for magnets
* Carrying out experiments to demagnetize and care for magnets
 | * Battery/cell
* Keepers
* Bar magnets
* Chart on demagnetization and care for magnets
 | * Comprehensive secondary physics students book 2 pages 8-9
* Comprehensive secondary physics teachers book 2 pages 1-5
* Secondary physics KLB students book 2 page 25-26
* Principles of physics (M.Nelkom) pages 442
* Golden tips physics page 126-127
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|  | **3-4** | MAGNETISM | Uses of magnets | By the end of the lesson, the learner should be able to1. Describe the uses of magnets
 | * Describing uses of magnets
* Discussions
* Using magnets
 | * Magnets
* Metallic bars
* Non-metallic bars
 | * Comprehensive secondary physics students book 2 pages 9
* Comprehensive secondary physics teachers book 2 pages 1-5
* Secondary physics KLB students book 2 page 27
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 127
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| **5** | **1-2** | MAGNETISM  | The domain theory of magnetism | By the end of the lesson, the learner should be able to:1. Explain the domain theory
 | * Describing the domain theory of magnetism
* Explaining the application of the domain theory of magnetism
 | * Charts on domain theory
* Bar magnets
* Iron fillings
* Test tubes
* Cork
 | * Comprehensive secondary physics students book 2 pages 9-10
* Comprehensive secondary physics teachers book 2 pages 1-5
* Secondary physics KLB students book 2 page 17
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 127
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|  | **3-4** | MAGNETISM | Revision | By the end of the lesson, the learner should be able to:1. Answer questions on magnetism
 | * Questions and answers
* Read more on magnetism
 | * Questions and project to the students book 2
 | * Comprehensive secondary physics students book 2 pages 11-12
* Comprehensive secondary physics teachers book 2 pages 5-6
* Secondary physics KLB students book 2 page 27
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 131
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| **6** | **1-2** | MEASUREMENT II | The vernire calipers  | By the end of the lesson, the learner should be able to 1. Measure length using vernire calipers
 | * Measuring length and diameter of various objects using a venire calipers
 | * Vernire calipers
* Circular containers
* Nail
* needles
 | * Comprehensive secondary physics students book 2 pages 13-15
* Comprehensive secondary physics teachers book 2 pages 6-11
* Secondary physics KLB students book 2 page 31-36
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 3-4
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|  | **3-4** | MEASUREMENT II | The micrometerScrew gauge | By the end of the lesson, the learner should be able to:1. Measure length using the micrometer screw gauge
 | * Measuring small diameters and thickness using the screw gauge
 | * Micrometer screw gauge
* Charts on how to read the scale of a screw gauge
* Wires
* paper
 | * Comprehensive secondary physics students book 2 pages 15-17
* Comprehensive secondary physics teachers book 2 pages 6-11
* Secondary physics KLB students book 2 page 36-40
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 4-5
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| **7** | **1-2** | MEASUREMENT II | Decimal places, significant figures and standard form | By the end of the lesson, the learner should be able to:1. State numbers in standard form, decimal places and significant figures
 | * Working out problems in decimals
* Identifying the significant figures of a number
* Writing numbers in standard form
 |  | * Comprehensive secondary physics students book 2 pages 17-19
* Comprehensive secondary physics teachers book 2 pages 6-11
* Secondary physics KLB students book 2 page 40-41
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 8-9
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|  | **3-4** | MEASUREMENT II | Determining the size of a molecule | By the end of the lesson, the learner should be able to:1. Estimate the diameter of a drop of oil
 | * Measuring the diameter of an molecule
 | * Oil
* Burette
* Wire
* Trough
* Water
* Floor or pollen grain
* strings
 | * Comprehensive secondary physics students book 2 pages 6-11
* Comprehensive secondary physics teachers book 2 pages 19-21
* Secondary physics KLB students book 2 page 42-44
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 9
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| **8** | **1-2** | MEASUREMENT II | Revision | By the end of the lesson the learner should be able to:1. Answer questions involving measurement
 | * Problem solving
* Identifying values on appropriate scale
* Carrying out a project work
 | * Questions and project the students book 2
* Questions work sheet
 | * Comprehensive secondary physics students book 2 pages 21-23
* Comprehensive secondary physics teachers book 2 pages 11
* Secondary physics KLB students book 2 page 46-49
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 10
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|  | **3-4** | THE TURNING EFFECTS OF A FORCE | The moments of a force | By the end of the lesson, the learner should be able to:1. Define moments of force about a point
2. State the SI units of moment of force
 | * Defining moments of force
* Calculating moment
 | * Meter rule
* Knife edge
* Strings
* Spring balance
* Masses
 | * Comprehensive secondary physics students book 2 pages 24
* Comprehensive secondary physics teachers book 2 pages 12-14
* Secondary physics KLB students book 2 page 50-52
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 13
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| **9** | **1-2** | THE TURNING EFFECTS OF A FORCE | Principles of moments | By the end of the lesson, the learner should be able to:1. State and verify the principle of moment
 | * Stating the principle of moment of a force
* Calculating moments
 | * Meter rule
* Knife edge
* Strings
* Spring balance
* Masses
 | * Comprehensive secondary physics students book 2 pages 24
* Comprehensive secondary physics teachers book 2 pages 12-14
* Secondary physics KLB students book 2 page 53-56
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 14-15
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|  | **3-4** | THE TURNING EFFECTS OF A FORCE | Revision | By the end of the lesson, the learner should be able to1. Solve problems involving moments
 | * Problems solving
* Discussion of correct procedure
* Questions and answers
 | * The exercise in the student book
 | * Comprehensive secondary physics students book 2 pages 27-28
* Comprehensive secondary physics teachers book 2 pages 13-14
* Secondary physics KLB students book 2 page 65-67
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 14-15
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| **10** | **1-2** | TURNING EFFECTS OF A FORCE | Revision | By the end of the lesson, the learner should be able to:1. Answer questions on the covered topics
 | * Answer questions in quiz or test form
* Discussing answers
 | * Moderate a review questions
* Marking schemes
 | * Comprehensive secondary physics students book 2 pages 1-28
* Comprehensive secondary physics teachers book 2 pages 1-14
* Secondary physics KLB students book 2 page 65-67
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 14-15
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|  | **3-4** | EQUILIBRIUM AND CENTRE OF GRAVITY | Equilibrium | By the end of the lesson, the learner should be able to:1. Identify and explain the states of equilibrium
 | * Identifying the states of equilibrium
* Explaining the conditions of equilibrium
 | * Objects with stable, unstable and neutral equilibrium
 | * Comprehensive secondary physics students book 2 pages 33
* Comprehensive secondary physics teachers book 2 pages 15-17
* Secondary physics KLB students book 2 page 17-18
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 15-16
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| **11** | **1-2** | Equilibrium and centre of gravity | Centre of gravity | By the end of the lesson, the learner should be able to1. Define centre of gravity
2. Determine centre of gravity of lamina objects
 | * Defining centre of gravity
* Determining centre of gravity of lamina objects
 | * Lamina objects
* Plumb line
* pencils
 | * Comprehensive secondary physics students book 2 pages 30
* Comprehensive secondary physics teachers book 2 pages 15-17
* Secondary physics KLB students book 2 page 68-76
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 15
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|  | **3-4** | Equilibrium and centre of gravity | Stability | By the end of the lesson, the learner should be able to:1. Explain and state the factors affecting stability of an object
 | * Identifying the factors affecting stability
* Explaining how equilibrium is maintained
 | * Chart showing factors of stability
 | * Comprehensive secondary physics students book 2 pages 31-33
* Comprehensive secondary physics teachers book 2 pages 15-17
* Secondary physics KLB students book 2 page 78
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 16
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| **12** | **1-2** | Equilibrium and centre of gravity | Stability | By the end of the lesson, the learner should be able to:1. Explain where stability is applicable
 | * Explaining the application of stability
* Discussions
 | * Pictures and charts showing applications of stability
 | * Comprehensive secondary physics students book 2 pages 15-17
* Comprehensive secondary physics teachers book 2 pages 33
* Secondary physics KLB students book 2 page 79-80
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 16
 |  |
|  | **3-4** | Equilibrium and centre of gravity | Revision | By the end of the lesson, the learner should be able to:1. Solve problems involving centre of gravity and moment of a force
 | * Problem solving
* Discussion of solution
* Questions and answers
* Doing end of term examinations
 | * Moderate review questions
* Marking schemes
* Exercises in the students book 2
 | * Comprehensive secondary physics students book 2 pages 34
* Comprehensive secondary physics teachers book 2 pages 17
* Secondary physics KLB students book 2 page 80-82
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 16
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| **PHYSICS FORM 2 SCHEMES OF WORK – TERM 2** |
| **WEEK** | **LESSON** | **TOPIC** | **SUB - TOPIC** | **OBJECTIVES** | **LEARNING/TEACHING ACTIVITIES** | **LEARNING/TEACHING RESOURCES** | **REFERENCES** | **REMARKS** |
| **1** | **1-2** | REFLECTION AT CURVED SURFACES | Spherical mirrors | By the end of the lesson, the learner should be able to:1. Describe concave, convex and parabolic reflectors
 | * Reflecting light at curved mirrors
 | * Concave mirrors
* Convex mirrors
* parabolic mirrors
* Plane papers
* Soft board, pins
 | * Comprehensive secondary physics students book 2 pages 35
* Comprehensive secondary physics teachers book 2 pages 18-22
* Secondary physics KLB students book 2 page 83
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 102
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|  | **3-4** | REFLECTION AT CURVED SURFACES | Parts of spherical mirrors and parabolic surfaces | By the end of the lesson, the learner should be able to:1. Describe using any diagram, the principle axes, principle focus, centre of curvature, radius of curvature and related terms
 | * Describing parts of a curved mirrors
* Observing reflection at spherical mirrors
 | * Variety of a curved mirrors
* Graph papers
* Rulers
 | * Comprehensive secondary physics students book 2 pages 35-37
* Comprehensive secondary physics teachers book 2 pages 18-22
* Secondary physics KLB students book 2 page 85-87
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 102
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| **2** | **1-2** | REFLECTION AT CURVED SURFACES | Locating images in curved mirrors and parabolic surfaces | By the end of the lesson, the learner should be able to:1. Use ray diagram to locate images formed by plane mirrors
 | * Drawing ray diagrams
* Describing image characteristics
 | * Graph papers
* Soft boards
* Plane papers
* Pins
 | * Comprehensive secondary physics students book 2 pages 37-38
* Comprehensive secondary physics teachers book 2 pages 18-22
* Secondary physics KLB students book 2 page 86
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 103
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|  | **3-4** | REFLECTION AT CURVED SURFACES | Characteristics of images formed by concave mirrors | By the end of the lesson, the learner should be able to1. Determine experimentally the characteristics of images formed by concave mirrors
 | * Experimenting with concave mirrors
* Describing the nature of images formed in concave mirror
 | * Concave mirrors
 | * Comprehensive secondary physics students book 2 pages 39-40
* Comprehensive secondary physics teachers book 2 pages 19-22
* Secondary physics KLB students book 2 page 95-100
* Principles of physics (M.Nelkom) pages 439-440
* Golden tips physics page 103
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| **3** | **1-2** | REFLECTION AT CURVED SURFACES | Applications of curved reflecting surfaces and magnification | By the end of the lesson, the learner should be able to1. Define magnification
2. State and explain the applications of curved mirrors
3. State the defects of spherical mirrors
 | * Explaining magnification and formula in curved mirrors
* Describing the uses of curved mirrors
* Asking questions
 | * Curved mirrors
* Exercise in students book 2
 | * Comprehensive secondary physics students book 2 pages 40-43
* Comprehensive secondary physics teachers book 2 pages 19-24
* Secondary physics KLB students book 2 page 104-120
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 105
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|  | **3-4** | THE MAGNETIC EFFECT OF ELECTRIC CURRENT | Magnetic field due to current | By the end of the lesson, the learner should be able to1. Perform and describe an experiment to determine the direction of a magnetic field round a current carrying conductor
 | * Observing and describing the direction of magnetic field round a current carrying a conductor
* Carrying out experiments
 | * Compass
* Wires
* Battery
* Ammeter
* Compass needle
* Cardboard
* Screws
* Iron fillings
 | * Comprehensive secondary physics students book 2 pages 44-47
* Comprehensive secondary physics teachers book 2 pages 25-28
* Secondary physics KLB students book 2 page 123-128
* Principles of physics (M.Nelkom) pages 439-440
* Golden tips physics page 128
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| **4** | **1-2** | MAGNETIC EFFECT OF ELECTRIC CURRENT | Magnetic field pattern | By the end of the lesson, the learner should be able to:1. Determining the magnetic field patterns on straight conductors and solenoid
 | * Constructing a simple electromagnetic
 | * Soft iron
* Nails
* Compass
* Solenoid
 | * Comprehensive secondary physics students book 2 pages 47-48
* Comprehensive secondary physics teachers book 2 pages 25-28
* Secondary physics KLB students book 2 page 128
* Principles of physics (M.Nelkom) pages 439-440
* Golden tips physics page 129
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|  | **3-4** | MAGNETIC FIELD OF ELECTRIC CURRENT | Electromagnetic field pattern | By the end of the lesson, the learner should be able to:1. Construct a simple electromagnet
 | * Constructing a simple electromagnets
 | * Solenoid
* Soft iron
* Nails compass
 | * Comprehensive secondary physics students book 2 pages 47-48
* Comprehensive secondary physics teachers book 2 pages 25-28
* Secondary physics KLB students book 2 page 143
* Principles of physics (M.Nelkom) pages 439-440
* Golden tips physics page 130
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| **5** | **1-2** | MAGNETIC EFFECTS OF ELECTRIC CURRENT | Strength of an electron-magnets | By the end of the lesson, the learner should be able to:1. Explain the working of simple electronic motor and an electric bell
 | * Investigating the factors that affect the strength of an electromagnet
 | * Battery
* Ammeter
* Different magnetic materials
 | * Comprehensive secondary physics students book 2 pages 48-49
* Comprehensive secondary physics teachers book 2 pages 25-28
* Secondary physics KLB students book 2 page 131
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 130
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|  | **3-4** | MAGNETIC EFFECTS OF ELECTRIC CURRENT | Applications of electromagnets | By the end of the lesson, the learner should be able to:1. Explain the working of a simple electric motor and an electric bell
 | * Discussing the use of an electric bell
* Discussing the use of electric motor
 | * An electric bell
* An electric motor
 | * Comprehensive secondary physics students book 2 pages 49-58
* Comprehensive secondary physics teachers book 2 pages 23-28
* Secondary physics KLB students book 2 page 143-151
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 130
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| **6** | **1-2** | MAGNETIC EFFECTS OF ELECTRIC CURRENT | Construction of an electric bell | By the end of the lesson, the learner should be able to1. Construct a simple electric bell
 | * Constructing an electric bell
 | * Materials for constructing an electric bell
* Chart in electric bell
 | * Comprehensive secondary physics students book 2 pages 48-49
* Comprehensive secondary physics teachers book 2 pages 25-28
* Secondary physics KLB students book 2 page 131
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 131
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|  | **3-4** | MAGNETIC EFFECTS OF ELECTRIC CURRENT | Motor effect | By the end of the lesson, the learner should be able to1. Experimentally determine direction of a force on a conductor carrying current in a magnetic field
 | * Experiments on motor effects
* Flemings rules illustrated
 | * Magnets
* Wires
* Pattery
* Pins
 | * Comprehensive secondary physics students book 2 pages 52-53
* Comprehensive secondary physics teachers book 2 pages 25-28
* Secondary physics KLB students book 2 page 150-151
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 130
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| **7** | **1-2** | THE MAGNETIC EFFECT OF ELECTRIC CURRENT | Factors affecting force on a current carrying conductor | By the end of the lesson, the learner should be able to:1. State and explain factors affecting force on a current carrying conductors in a magnetic fields
 | * Rotation between current magnetism and force
 | * Battery
* Magnets
* Wires
* Ferromagnetic materials
 | * Comprehensive secondary physics students book 2 pages 49-51
* Comprehensive secondary physics teachers book 2 pages 27
* Secondary physics KLB students book 2 page 131
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 130
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|  | **3-4** | THE MAGNETIC EFFECT OF ELECTRIC CURRENT | Construction of a simple electric motor | By the end of the lesson, the learner should be able to;1. Construct a simple electric motor
 | * Constructing an electronic motor
 | * Source of current
* Wire
* magnets
 | * Comprehensive secondary physics students book 2 pages 49-51
* Comprehensive secondary physics teachers book 2 pages 25-28
* Secondary physics KLB students book 2 page 150-151
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 130
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| **8** | **1-2** | THE MAGNETIC EFFECT OF ELECTRO-CURRENT | Revision | By the end of the lesson, the learner should be able to1. Answer questions on magnetic effects of an electric current
 | * Questions and answers
* Doing research/projects
 | Information and exercise in the students book 2 | * Comprehensive secondary physics students book 2 pages 58-59
* Comprehensive secondary physics teachers book 2 pages 28-29
* Secondary physics KLB students book 2 page 152-153
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 131-132
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| **9** | **1-2** | HOOK’S LAW | Hook’s law | By the end of the lesson, the learner should be able to:1. State and derive the Hook’s law
 | * Defining Hook’s law
* Deriving Hook’s law
 | * Wire springs
* Masses
* Spring balance
* Graph paper
 | * Comprehensive secondary physics students book 2 pages 60-61
* Comprehensive secondary physics teachers book 2 pages 30-32
* Secondary physics KLB students book 2 page 158
* Principles of physics (M.Nelkom) pages 439-440
* Golden tips physics page 17
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|  | **3-4** | HOOK’S LAW | Spring constant | By the end of the lesson, the learner should be able to:1. Determine spring constant of a given spring
 | * Determining the spring constant of a given spring
* Suspending masses of springs
 | * Springs
* Meter rule
* Graph papers
* Masses
 | * Comprehensive secondary physics students book 2 pages 61-63
* Comprehensive secondary physics teachers book 2 pages 30-31
* Secondary physics KLB students book 2 page 158-164
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 18
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| **10** | **1-2** | HOOK’S LAW | The spring balance | By the end of the lesson, the learner should be able to:1. Construct and calibrate a spring balance
 | * Making and calibrating a spring balance
 | * Wires
* Wood
* Meter rule
* Masses
 | * Comprehensive secondary physics students book 2 pages 63-65
* Comprehensive secondary physics teachers book 2 pages 30-32
* Secondary physics KLB students book 2 page 165
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 18
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|  | **3-4** | HOOK’S LAW | Revision | By the end of the lesson, the learner should be able to:1. Solve problems on Hook’s law
 | * Questions and answers
* Problem solving
 | * Questions in the students book 2
 | * Comprehensive secondary physics students book 2 pages 65-66
* Comprehensive secondary physics teachers book 2 pages 32-33
* Secondary physics KLB students book 2 page 166-169
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 19-20
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| **11** | **1-2** | WAVES I | Pulses and waves | By the end of the lesson, the learner should be able to1. Describe the information of pulses and waves
 | * Describing the formation of pulses and waves
 | * Strings/ropes
* Ripple frank
* Water
* Stones
* Basins
 | * Comprehensive secondary physics students book 2 pages 67
* Comprehensive secondary physics teachers book 2 pages 34-35
* Secondary physics KLB students book 2 page 173-176
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 87
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|  | **3-4** | WAVES I | Transverse and longitudinal pulse and waves | By the end of the lesson, the learner should be able to1. Describe transverse and longitudinal pulses and waves
 | * Distinguishing between transverse and longitudinal pulses and waves
* Forming pulse and waves
 | * Sources of transverse and longitudinal waves
 | * Comprehensive secondary physics students book 2 pages 67-69
* Comprehensive secondary physics teachers book 2 pages 34-35
* Secondary physics KLB students book 2 page 170-173
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 87
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| **12** | **1-2** | WAVES I | Characteristics of waves | By the end of the lesson, the learner should be able to:1. Define amplitude (a), the wave length (l) the frequency (f) and the period (T) of a wave
 | * Describing and defining the characteristics of waves
 | * Ripple tank
* Rollers
* Springs
* Chart showing the characteristics of waves
 | * Comprehensive secondary physics students book 2 pages 69-71
* Comprehensive secondary physics teachers book 2 pages 34-35
* Secondary physics KLB students book 2 page 174-183
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 89
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|  | **3-4** | WAVES I | Revision | By the end of the lesson, the learner should be able to:1. Derive and solve problems using the formula v=fx
 | * Deriving the equation v=fx
* Solving problems using the formula v=fx
 | * Set questions
 | * Comprehensive secondary physics students book 2 pages 70-71
* Comprehensive secondary physics teachers book 2 pages 335
* Secondary physics KLB students book 2 page 183
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 96
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| **PHYSICS FORM 2 SCHEMES OF WORK – TERM 3** |
| **WEEK** | **LESSON** | **TOPIC** | **SUB - TOPIC** | **OBJECTIVES** | **LEARNING/TEACHING ACTIVITIES** | **LEARNING/TEACHING RESOURCES** | **REFERENCES** | **REMARKS** |
| **1** | **1-2** | EVALUATION  | Revision | By the end of the lesson, the learner should be able to:1. Get the correct responses to the holiday assignments
 | * Discussions on correct answers to holiday assignment
 | * Marking scheme for holiday assignment
 | * Comprehensive secondary physics students book 2 pages 69-71
* Comprehensive secondary physics teachers book 2 pages 34-35
* Secondary physics KLB students book 2 page 183-185
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 89
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|  | **3-4** | SOUNDS | Production of sounds | By the end of the lesson, the learner should be able to:1. Demonstrate that sound is produced by vibrating objects
 | * Producing sound by vibrating strings, tins and bottles
 | * Strings
* Tins
* Bottles
* Stick
* Tuning forks
* Nails
* shakers
 | * Comprehensive secondary physics students book 2 pages 73
* Comprehensive secondary physics teachers book 2 pages 37-39
* Secondary physics KLB students book 2 page 186-189
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 93
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| **2** | **1-2** | SOUNDS  | Propagation of sounds | By the end of the the lesson, the learner should be able to:1. Show that light does not travel in vacuum
 | * Demonstrating that sound requires a materials random for perpetration
 | * Bell jar
* Vacuum pump
* Electric bell
 | * Comprehensive secondary physics students book 2 pages 74
* Comprehensive secondary physics teachers book 2 pages 37-39
* Secondary physics KLB students book 2 page 190-193
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 94
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|  | **3-4** | SOUNDS | Nature of sound waves | By the end of the lesson, the learner should be able to:1. Describe the nature of sound waves
 | * Describing and observing the characteristics of sound waves using the echo methods to find the speed of sound
* Discussions
 | * Open tube
* Closed tube
* Strings
* bottles
 | * Comprehensive secondary physics students book 2 pages 74-76
* Comprehensive secondary physics teachers book 2 pages 37-39
* Secondary physics KLB students book 2 page 194
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 93
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| **3** | **1-2** | SOUND  | Speed of sound | By the end of the lesson, the learner should be able to:1. Determine the speed of sound in air by echo methods
 | * Investigating the factors determining the speed of sound
 | * Stop clock/watch
* Chart on procedure for formulating the speed of sound
 | * Comprehensive secondary physics students book 2 pages 77-78
* Comprehensive secondary physics teachers book 2 pages 37-39
* Secondary physics KLB students book 2 page 190-193
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 95
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|  | **3-4** | SOUND | Factors affecting the speed of sound | By the end of the lesson, the learner should be able to:1. State factors that affect the speed of sound
 | * Discussing how different aspects of nature affects the speed of sound
 | * Sources of sound
* Solid
* Water
* Air
 | * Comprehensive secondary physics students book 2 pages 78-79
* Comprehensive secondary physics teachers book 2 pages 38-39
* Secondary physics KLB students book 2 page 193
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 95
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| **4** | **1-4** | SOUND  | Revision  | By the end of the lesson, the learner should be able to:1. Solve problems involving sound
 | * Questions and answers
* Carrying out projects
 | * Exercise in the students book 2
 | * Comprehensive secondary physics students book 2 pages 79-80
* Comprehensive secondary physics teachers book 2 pages 39
* Secondary physics KLB students book 2 page 198-203
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 96
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| **5** | **1-2** | FLUID FLOW | Structure and turbulent flow | By the end of the lesson, the learner should be able to1. Describe the streamline and turbulent flow
 | * Discussions
* Observing and defining
* Streamline and turbulent flow
 | * Water
* Pipes of varying diameter
* Sheet of paper
 | * Comprehensive secondary physics students book 2 pages 81
* Comprehensive secondary physics teachers book 2 pages 40-42
* Secondary physics KLB students book 2 page 204-208
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 48
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|  | **3-4** | FLUID FLOW | Equation of continuity | By the end of the lesson, the learner should be able to1. Derive the equation of continuity
 | * Deriving the equation of continuity
* Discussions
 | * pipes of varying diameter
* charts on equation of continuity
 | * Comprehensive secondary physics students book 2 pages 82
* Comprehensive secondary physics teachers book 2 pages 40-42
* Secondary physics KLB students book 2 page 210-215
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 49
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| **6** | **1-2** | FLUID FLOW | Bernoulli’s effect | By the end of the lesson, the learner should be able to1. Describe experiments to illustrate Benoullli’s effect
 | * Illustrating Bernoulli’s effect by experiments
 | * Paper funnel
* Plane paper
 | * Comprehensive secondary physics students book 2 pages 83-84
* Comprehensive secondary physics teachers book 2 pages 40-42
* Secondary physics KLB students book 2 page 215-221
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 49
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|  | **3-4** | FLUID FLOW | Application of Bernoulli’s effect | By the end of the lesson, the learner should be able to:1. Describe where Bernoulli’s effect is applied such as in the Bunsen burner, spray gun, carburetor, aerofoil and spinning ball
 | * Describing the application of Bernoulli’s principle
 | * Bunsen burner
 | * Comprehensive secondary physics students book 2 pages 84-87
* Comprehensive secondary physics teachers book 2 pages 40-42
* Secondary physics KLB students book 2 page 221-231
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 49-50
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| **7** | **1-4** | FLUID FLOW | Revision | By the end of the lesson the learner should be able to:1. Solve problems involving the equilibrium of continuity
 | * Answering the questions
* Discussing answers to assignment
 | * Exercise in the students’ book 2
* assignment
 | * Comprehensive secondary physics students book 2 pages 88
* Comprehensive secondary physics teachers book 2 pages 42
* Secondary physics KLB students book 2 page 231-234
* Principles of physics (M.Nelkom) pages
* Golden tips physics page 50
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