**PHYSICS SCHEMES OF WORK**

**FORM TWO 2016**

**TERM I**

**REFERENCES:**

1. Secondary Physics KLB
2. Comprehensive Secondary Physics
3. Principles of Physics
4. Golden Tips
5. Teacher’s Book

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **WK** | **LSN** | **TOPIC** | **SUB-TOPIC** | **OBJECTIVES** | **L/ACTIVITIES** | **L/T AIDS** | **REFERENCE** | **REMARKS** |
| **1** | **1-4** | **REPORTING AND REVISION OF LAST TERM’S EXAMS** |  |
| 2 | 1-2 | Magnetism  | Magnetism and magnetic materials | By the end of the lesson, the learner should be able to:Identify magnetic and non-magnetic materials | Observing attraction and repulsion of magnetsIdentifying the test for magnetic materialsDescribing natural and artificial materialsCarrying out experiments to identify magnetic and non-magnetic materials | MagnetsNailsPinsWoodPlasticsTinsSpoonsStringsRazor bladeStand | Comprehensive secondary physics students book 2 pages 1-2Comprehensive secondary physics teachers book 2 pages 1-5Secondary physics KLB students book 2 pagePrinciples of physics (M.Nelkom) pages 442-443Golden tips physics page 124 |  |
|  | 3-4 | Magnetism | Properties of magnets and the law of magnetism | By the end of the lesson, the learner should be able toDescribe the properties of magnetsState the logic law of magnetism | Investigating properties of magnetsStating the laws of magnetism | MagnetsCharts on propertiesIron fillingsStringsStand | Comprehensive secondary physics students book 2 pages 1-2Comprehensive secondary physics teachers book 2 pages 1-5Secondary physics KLB students book 2 page 1-4Principles of physics (M.Nelkom) pages 149Golden tips physics page 124 |  |
| 3 | 1-2 | Magnetism  | The compass | By the end of the lesson, the learner should be able toConstruct simple compass | Constructing a simple compass | Pin/screwMagnetCorkGlass topWater troughPiece of stiff paperRazor bladeGlue  | Comprehensive secondary physics students book 2 pages 3-5Comprehensive secondary physics teachers book 2 pages 1-5Secondary physics KLB students book 2 page 5Principles of physics (M.Nelkom) pages 151Golden tips physics page 127 |  |
|  | 3-4 | Magnetism | Magnetic field patterns | By the end of the lesson, the learner should be able to:Describe magnet field patterns | Plotting the field of a bar magnet using a compass and iron filings | A compassIron fillingsBar magnetsCan with lidCard boardSheet of papers | Comprehensive secondary physics students book 2 pages 3-5Comprehensive secondary physics teachers book 2 pages 1-5Secondary physics KLB students book 2 page 6-7Principles of physics (M.Nelkom) pages 444Golden tips physics page 124-125 |  |
| 4 | 1-2 | Magnetism | Making magnets by induction and stroking | By the end of the lesson, the learner should be able to make magnets by :InductionStroking  | Demonstrating inductionMagnetizing a steel bar by stroking single and double strikesDefining hard and soft magnets | Bar magnetsSteel barsNailsIron bars | Comprehensive secondary physics students book 2 pages 6-7Comprehensive secondary physics teachers book 2 pages 1-5Secondary physics KLB students book 2 page 19-22Principles of physics (M.Nelkom) pages 441-442Golden tips physics page 125-126 |  |
|  | 3-4 | Magnetism | Making magnets by an electric current | By the end of the lesson, the learner should be able to:Magnetize a material by an electric current | Magnetizing a steel bar by an electric current | Insulated wireBattery cellSteel bar | Comprehensive secondary physics students book 2 pages 8Comprehensive secondary physics teachers book 2 pages 1-5Secondary physics KLB students book 2 page 23-24Principles of physics (M.Nelkom) pages 440Golden tips physics page 125-126 |  |
| 5 | 1-2 | Magnetism | Demagnetization and caring for magnets | By the end of the lesson, the learner should be able toDescribe the methods of demagnetizativeDescribe how to care for magnets | Describing ways of demagnetizing of magnetExplaining how to care for magnetsCarrying out experiments to demagnetize and care for magnets | Battery/cellKeepersBar magnetsChart on demagnetization and care for magnets | Comprehensive secondary physics students book 2 pages 8-9Comprehensive secondary physics teachers book 2 pages 1-5Secondary physics KLB students book 2 page 25-26Principles of physics (M.Nelkom) pages 442Golden tips physics page 126-127 |  |
|  | 3-4 | Magnetism | Uses of magnets | By the end of the lesson, the learner should be able toDescribe the uses of magnets | Describing uses of magnetsDiscussionsUsing magnets | MagnetsMetallic barsNon-metallic bars | Comprehensive secondary physics students book 2 pages 9Comprehensive secondary physics teachers book 2 pages 1-5Secondary physics KLB students book 2 page 27Principles of physics (M.Nelkom) pages Golden tips physics page 127 |  |
| 6 | 1-2 | Magnetism  | The domain theory of magnetism | By the end of the lesson, the learner should be able to:Explain the domain theory | Describing the domain theory of magnetismExplaining the application of the domain theory of magnetism | Charts on domain theoryBar magnetsIron fillingsTest tubesCork | Comprehensive secondary physics students book 2 pages 9-10Comprehensive secondary physics teachers book 2 pages 1-5Secondary physics KLB students book 2 page 17Principles of physics (M.Nelkom) pages Golden tips physics page 127 |  |
|  | 3-4 | Magnetism | Revision | By the end of the lesson, the learner should be able to:Answer questions on magnetism | Questions and answersRead more on magnetism | Questions and project to the students book 2 | Comprehensive secondary physics students book 2 pages 11-12Comprehensive secondary physics teachers book 2 pages 5-6Secondary physics KLB students book 2 page 27Principles of physics (M.Nelkom) pages Golden tips physics page 131 |  |
| 7 | 1-2 | Measurement Ii | The vernire calipers  | By the end of the lesson, the learner should be able to Measure length using vernire calipers | Measuring length and diameter of various objects using a venire calipers | Vernire calipersCircular containersNailneedles | Comprehensive secondary physics students book 2 pages 13-15Comprehensive secondary physics teachers book 2 pages 6-11Secondary physics KLB students book 2 page 31-36Principles of physics (M.Nelkom) pages Golden tips physics page 3-4 |  |
|  | 3-4 | Measurement Ii | The micrometerScrew gauge | By the end of the lesson, the learner should be able to:Measure length using the micrometer screw gauge | Measuring small diameters and thickness using the screw gauge | Micrometer screw gaugeCharts on how to read the scale of a screw gaugeWirespaper | Comprehensive secondary physics students book 2 pages 15-17Comprehensive secondary physics teachers book 2 pages 6-11Secondary physics KLB students book 2 page 36-40Principles of physics (M.Nelkom) pages Golden tips physics page 4-5 |  |
| 8 | 1-2 | Measurement Ii | Decimal places, significant figures and standard form | By the end of the lesson, the learner should be able to:State numbers in standard form, decimal places and significant figures | Working out problems in decimalsIdentifying the significant figures of a numberWriting numbers in standard form |  | Comprehensive secondary physics students book 2 pages 17-19Comprehensive secondary physics teachers book 2 pages 6-11Secondary physics KLB students book 2 page 40-41Principles of physics (M.Nelkom) pages Golden tips physics page 8-9 |  |
|  | 3-4 | Measurement Ii | Determining the size of a molecule | By the end of the lesson, the learner should be able to:Estimate the diameter of a drop of oil | Measuring the diameter of an molecule | OilBuretteWireTroughWaterFloor or pollen grainstrings | Comprehensive secondary physics students book 2 pages 6-11Comprehensive secondary physics teachers book 2 pages 19-21Secondary physics KLB students book 2 page 42-44Principles of physics (M.Nelkom) pages Golden tips physics page 9 |  |
| 9 | 1-2 | Measurement Ii | Revision | By the end of the lesson the learner should be able to:Answer questions involving measurement | Problem solvingIdentifying values on appropriate scaleCarrying out a project work | Questions and project the students book 2Questions work sheet | Comprehensive secondary physics students book 2 pages 21-23Comprehensive secondary physics teachers book 2 pages 11Secondary physics KLB students book 2 page 46-49Principles of physics (M.Nelkom) pages Golden tips physics page 10 |  |
|  | 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:Define moments of force about a pointState the SI units of moment of force | Defining moments of forceCalculating moment | Meter ruleKnife edgeStringsSpring balanceMasses | Comprehensive secondary physics students book 2 pages 24Comprehensive secondary physics teachers book 2 pages 12-14Secondary physics KLB students book 2 page 50-52Principles of physics (M.Nelkom) pages Golden tips physics page 13 |  |
| 10 | 1-2 | The Turning Effects Of A Force | Principles of moments | By the end of the lesson, the learner should be able to:State and verify the principle of moment | Stating the principle of moment of a forceCalculating moments | Meter ruleKnife edgeStringsSpring balanceMasses | Comprehensive secondary physics students book 2 pages 24Comprehensive secondary physics teachers book 2 pages 12-14Secondary physics KLB students book 2 page 53-56Principles of physics (M.Nelkom) pages Golden tips physics page 14-15 |  |
|  | 3-4 | The Turning Effects Of A Force | Revision | By the end of the lesson, the learner should be able to*© Education Plus Agencies*Solve problems involving moments | Problems solvingDiscussion of correct procedureQuestions and answers | The exercise in the student book | Comprehensive secondary physics students book 2 pages 27-28Comprehensive secondary physics teachers book 2 pages 13-14Secondary physics KLB students book 2 page 65-67Principles of physics (M.Nelkom) pages Golden tips physics page 14-15 |  |
| 11 | 1-2 | Turning Effects Of A Force | Revision | By the end of the lesson, the learner should be able to:Answer questions on the covered topics | Answer questions in quiz or test formDiscussing answers | Moderate a review questionsMarking schemes | Comprehensive secondary physics students book 2 pages 1-28Comprehensive secondary physics teachers book 2 pages 1-14Secondary physics KLB students book 2 page 65-67Principles of physics (M.Nelkom) pages Golden tips physics page 14-15 |  |
|  | 3-4 | Equilibrium And Centre Of Gravity | Equilibrium | By the end of the lesson, the learner should be able to:Identify and explain the states of equilibrium | Identifying the states of equilibriumExplaining the conditions of equilibrium | Objects with stable, unstable and neutral equilibrium | Comprehensive secondary physics students book 2 pages 33Comprehensive secondary physics teachers book 2 pages 15-17Secondary physics KLB students book 2 page 17-18Principles of physics (M.Nelkom) pages Golden tips physics page 15-16 |  |
| 12 | 1-2 | Equilibrium And Centre Of Gravity | Centre of gravity | By the end of the lesson, the learner should be able toDefine centre of gravityDetermine centre of gravity of lamina objects | Defining centre of gravityDetermining centre of gravity of lamina objects | Lamina objectsPlumb linepencils | Comprehensive secondary physics students book 2 pages 30Comprehensive secondary physics teachers book 2 pages 15-17Secondary physics KLB students book 2 page 68-76Principles of physics (M.Nelkom) pages Golden tips physics page 15 |  |
|  | 3-4 | Equilibrium And Centre Of Gravity | Stability | By the end of the lesson, the learner should be able to:Explain and state the factors affecting stability of an object | Identifying the factors affecting stabilityExplaining how equilibrium is maintained | Chart showing factors of stability | Comprehensive secondary physics students book 2 pages 31-33Comprehensive secondary physics teachers book 2 pages 15-17Secondary physics KLB students book 2 page 78Principles of physics (M.Nelkom) pages Golden tips physics page 16 |  |
| 13 | 1-2 | Equilibrium And Centre Of Gravity | Stability | By the end of the lesson, the learner should be able to:Explain where stability is applicable | Explaining the application of stabilityDiscussions | Pictures and charts showing applications of stability | Comprehensive secondary physics students book 2 pages 15-17Comprehensive secondary physics teachers book 2 pages 33Secondary physics KLB students book 2 page 79-80Principles 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:Solve problems involving centre of gravity and moment of a force | Problem solvingDiscussion of solutionQuestions and answersDoing end of term examinations | Moderate review questionsMarking schemesExercises in the students book 2 | Comprehensive secondary physics students book 2 pages 34Comprehensive secondary physics teachers book 2 pages 17Secondary physics KLB students book 2 page 80-82Principles of physics (M.Nelkom) pages Golden tips physics page 16 |  |
| **14** |  | **END OF TERM EXERMINATIONS** |  |
| **15** |  | **REPORT MAKING AND CLOSURE** |  |

**PHYSICS SCHEMES OF WORK**

**FORM TWO 2016**

**TERM II**

**REFERENCES:**

1. Secondary Physics KLB
2. Comprehensive Secondary Physics
3. Principles of Physics
4. Golden Tips
5. Teacher’s Book

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **WK** | **LSN** | **TOPIC** | **SUB-TOPIC** | **OBJECTIVES** | **L/ACTIVITIES** | **L/T AIDS** | **REFERENCE** | **REMARKS** |
| **1** | **1-4** | **REPORTING AND REVISION OF LAST TERM’S EXAMS** |  |
| 2 | 1-2 | Reflection At Curved Surfaces | Spherical mirrors | By the end of the lesson, the learner should be able to:Describe concave, convex and parabolic reflectors | Reflecting light at curved mirrors | Concave mirrorsConvex mirrorsparabolic mirrorsPlane papersSoft board, pins | Comprehensive secondary physics students book 2 pages 35Comprehensive secondary physics teachers book 2 pages 18-22Secondary physics KLB students book 2 page 83Principles of physics (M.Nelkom) pages Golden tips physics page 102 |  |
|  | 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:Describe using any diagram, the principle axes, principle focus, centre of curvature, radius of curvature and related terms | Describing parts of a curved mirrorsObserving reflection at spherical mirrors | Variety of a curved mirrorsGraph papersRulers | Comprehensive secondary physics students book 2 pages 35-37Comprehensive secondary physics teachers book 2 pages 18-22Secondary physics KLB students book 2 page 85-87Principles of physics (M.Nelkom) pages Golden tips physics page 102 |  |
| 3 | 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:Use ray diagram to locate images formed by plane mirrors | Drawing ray diagramsDescribing image characteristics | Graph papersSoft boardsPlane papersPins | Comprehensive secondary physics students book 2 pages 37-38Comprehensive secondary physics teachers book 2 pages 18-22Secondary physics KLB students book 2 page 86Principles of physics (M.Nelkom) pages Golden tips physics page 103 |  |
|  | 3-4 | Reflection At Curved Surfaces | Characteristics of images formed by concave mirrors | By the end of the lesson, the learner should be able toDetermine experimentally the characteristics of images formed by concave mirrors | Experimenting with concave mirrorsDescribing the nature of images formed in concave mirror | Concave mirrors | Comprehensive secondary physics students book 2 pages 39-40Comprehensive secondary physics teachers book 2 pages 19-22Secondary physics KLB students book 2 page 95-100Principles of physics (M.Nelkom) pages 439-440 Golden tips physics page 103 |  |
| 4 | 1-2 | Reflection At Curved Surfaces | Applications of curved reflecting surfaces and magnification | By the end of the lesson, the learner should be able toDefine magnificationState and explain the applications of curved mirrorsState the defects of spherical mirrors | Explaining magnification and formula in curved mirrorsDescribing the uses of curved mirrorsAsking questions | Curved mirrorsExercise in students book 2 | Comprehensive secondary physics students book 2 pages 40-43Comprehensive secondary physics teachers book 2 pages 19-24Secondary physics KLB students book 2 page 104-120Principles of physics (M.Nelkom) pages Golden tips physics page 105 |  |
|  | 3-4 | The Magnetic Effect Of Electric Current | Magnetic field due to current | By the end of the lesson, the learner should be able toPerform 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 conductorCarrying out experiments | CompassWiresBatteryAmmeterCompass needleCardboardScrewsIron fillings | Comprehensive secondary physics students book 2 pages 44-47Comprehensive secondary physics teachers book 2 pages 25-28Secondary physics KLB students book 2 page 123-128Principles of physics (M.Nelkom) pages 439-440 Golden tips physics page 128 |  |
| 5 | 1-2 | Magnetic Effect Of Electric Current | Magnetic field pattern | By the end of the lesson, the learner should be able to:Determining the magnetic field patterns on straight conductors and solenoid | Constructing a simple electromagnetic | Soft ironNails CompassSolenoid  | Comprehensive secondary physics students book 2 pages 47-48Comprehensive secondary physics teachers book 2 pages 25-28Secondary physics KLB students book 2 page 128Principles of physics (M.Nelkom) pages 439-440 Golden tips physics page 129 |  |
|  | 3-4 | Magnetic Field Of Electric Current | Electromagnetic field pattern | By the end of the lesson, the learner should be able to:Construct a simple electromagnet | Constructing a simple electromagnets | SolenoidSoft ironNails compass | Comprehensive secondary physics students book 2 pages 47-48Comprehensive secondary physics teachers book 2 pages 25-28Secondary physics KLB students book 2 page 143Principles of physics (M.Nelkom) pages 439-440 Golden tips physics page 130 |  |
| 6 | 1-2 | Magnetic Effects Of Electric Current | Strength of an electron-magnets | By the end of the lesson, the learner should be able to:Explain the working of simple electronic motor and an electric bell | Investigating the factors that affect the strength of an electromagnet | BatteryAmmeterDifferent magnetic materials | Comprehensive secondary physics students book 2 pages 48-49Comprehensive secondary physics teachers book 2 pages 25-28Secondary physics KLB students book 2 page 131Principles of physics (M.Nelkom) pages Golden tips physics page 130 |  |
|  | 3-4 | Magnetic Effects Of Electric Current | Applications of electromagnets | By the end of the lesson, the learner should be able to:Explain the working of a simple electric motor and an electric bell | Discussing the use of an electric bellDiscussing the use of electric motor | An electric bellAn electric motor | Comprehensive secondary physics students book 2 pages 49-58Comprehensive secondary physics teachers book 2 pages 23-28Secondary physics KLB students book 2 page 143-151Principles of physics (M.Nelkom) pages Golden tips physics page 130 |  |
| 7 | 1-2 | Magnetic Effects Of Electric Current | Construction of an electric bell | By the end of the lesson, the learner should be able toConstruct a simple electric bell | Constructing an electric bell | Materials for constructing an electric bellChart in electric bell | Comprehensive secondary physics students book 2 pages 48-49Comprehensive secondary physics teachers book 2 pages 25-28Secondary physics KLB students book 2 page 131Principles of physics (M.Nelkom) pages Golden tips physics page 131 |  |
|  | 3-4 | Magnetic Effects Of Electric Current | Motor effect | By the end of the lesson, the learner should be able toExperimentally determine direction of a force on a conductor carrying current in a magnetic field | Experiments on motor effectsFlemings rules illustrated | MagnetsWires BatteryPins  | Comprehensive secondary physics students book 2 pages 52-53Comprehensive secondary physics teachers book 2 pages 25-28Secondary physics KLB students book 2 page 150-151Principles of physics (M.Nelkom) pages Golden tips physics page 130 |  |
| 8 | 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:State and explain factors affecting force on a current carrying conductors in a magnetic fields | Rotation between current magnetism and force | BatteryMagnetsWiresFerromagnetic materials | Comprehensive secondary physics students book 2 pages 49-51Comprehensive secondary physics teachers book 2 pages 27Secondary physics KLB students book 2 page 131Principles of physics (M.Nelkom) pages Golden tips physics page 130 |  |
|  | 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;Construct a simple electric motor | Constructing an electronic motor | Source of currentWiremagnets | Comprehensive secondary physics students book 2 pages 49-51Comprehensive secondary physics teachers book 2 pages 25-28Secondary physics KLB students book 2 page 150-151Principles of physics (M.Nelkom) pages Golden tips physics page 130 |  |
| 9 | 1-2 | The Magnetic Effect Of Electro-Current | Revision | By the end of the lesson, the learner should be able toAnswer questions on magnetic effects of an electric current | Questions and answersDoing research/projects | Information and exercise in the students book 2 | Comprehensive secondary physics students book 2 pages 58-59Comprehensive secondary physics teachers book 2 pages 28-29Secondary physics KLB students book 2 page 152-153Principles of physics (M.Nelkom) pages Golden tips physics page 131-132 |  |
| 10 | 1-2 | Hook’s Law | Hook’s law | By the end of the lesson, the learner should be able to:State and derive the Hook’s law | Defining Hook’s lawDeriving Hook’s law | Wire springsMassesSpring balanceGraph paper | Comprehensive secondary physics students book 2 pages 60-61Comprehensive secondary physics teachers book 2 pages 30-32Secondary physics KLB students book 2 page 158Principles of physics (M.Nelkom) pages 439-440 Golden tips physics page 17 |  |
|  | 3-4 | Hook’s Law | Spring constant | By the end of the lesson, the learner should be able to:Determine spring constant of a given spring | Determining the spring constant of a given springSuspending masses of springs | SpringsMeter ruleGraph papersMasses | Comprehensive secondary physics students book 2 pages 61-63Comprehensive secondary physics teachers book 2 pages 30-31Secondary physics KLB students book 2 page 158-164Principles of physics (M.Nelkom) pages Golden tips physics page 18 |  |
| 11 | 1-2 | Hook’s Law | The spring balance | By the end of the lesson, the learner should be able to:Construct and calibrate a spring balance | Making and calibrating a spring balance | Wires WoodMeter ruleMasses | Comprehensive secondary physics students book 2 pages 63-65Comprehensive secondary physics teachers book 2 pages 30-32Secondary physics KLB students book 2 page 165Principles of physics (M.Nelkom) pages Golden tips physics page 18 |  |
|  | 3-4 | Hook’s Law | Revision | By the end of the lesson, the learner should be able to:Solve problems on Hook’s law | Questions and answersProblem solving | Questions in the students book 2 | Comprehensive secondary physics students book 2 pages 65-66Comprehensive secondary physics teachers book 2 pages 32-33Secondary physics KLB students book 2 page 166-169Principles of physics (M.Nelkom) pages Golden tips physics page 19-20 |  |
| 12 | 1-2 | Waves I | Pulses and waves | By the end of the lesson, the learner should be able toDescribe the information of pulses and waves | Describing the formation of pulses and waves | Strings/ropesRipple frankWater StonesBasins  | Comprehensive secondary physics students book 2 pages 67Comprehensive secondary physics teachers book 2 pages 34-35Secondary physics KLB students book 2 page 173-176Principles of physics (M.Nelkom) pages Golden tips physics page 87 |  |
|  | 3-4 | Waves I | Transverse and longitudinal pulse and waves | By the end of the lesson, the learner should be able toDescribe transverse and longitudinal pulses and waves | Distinguishing between transverse and longitudinal pulses and wavesForming pulse and waves | Sources of transverse and longitudinal waves | Comprehensive secondary physics students book 2 pages 67-69Comprehensive secondary physics teachers book 2 pages 34-35Secondary physics KLB students book 2 page 170-173Principles of physics (M.Nelkom) pages Golden tips physics page 87 |  |
| 13 | 1-2 | Waves I | Characteristics of waves | By the end of the lesson, the learner should be able to: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 tankRollersSpringsChart showing the characteristics of waves | Comprehensive secondary physics students book 2 pages 69-71Comprehensive secondary physics teachers book 2 pages 34-35Secondary physics KLB students book 2 page 174-183Principles of physics (M.Nelkom) pages Golden tips physics page 89 |  |
|  | 3-4 | Waves I | Revision | By the end of the lesson, the learner should be able to:Derive and solve problems using the formula v=fx | Deriving the equation v=fxSolving problems using the formula v=fx | Set questions | Comprehensive secondary physics students book 2 pages 70-71Comprehensive secondary physics teachers book 2 pages 335Secondary physics KLB students book 2 page 183Principles of physics (M.Nelkom) pages Golden tips physics page 96 |  |
| **14** |  | **END OF TERM EXAMINATIONS** |  |
| **15** |  | **REPORT MAKING AND CLOSURE** |  |

**PHYSICS SCHEMES OF WORK**

**FORM TWO 2016**

**TERM III**

**REFERENCES:**

1. Secondary Physics KLB
2. Comprehensive Secondary Physics
3. Principles of Physics
4. Golden Tips
5. Teacher’s Book

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **WK** | **LSN** | **TOPIC** | **SUB-TOPIC** | **OBJECTIVES** | **L/ACTIVITIES** | **L/T AIDS** | **REFERENCE** | **REMARKS** |
| **1** | **1-4** | **REPORTING AND REVISION OF LAST TERM’S EXAMS** |  |
| 2 | 1-2 | Evaluation  | Revision | By the end of the lesson, the learner should be able to: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 69-71Comprehensive secondary physics teachers book 2 pages 34-35Secondary physics KLB students book 2 page 183-185Principles of physics (M.Nelkom) pages Golden tips physics page 89 |  |
|  | 3-4 | Sounds | Production of sounds | By the end of the lesson, the learner should be able to:Demonstrate that sound is produced by vibrating objects | Producing sound by vibrating strings, tins and bottles | StringsTinsBottlesStickTuning forksNailsshakers | Comprehensive secondary physics students book 2 pages 73Comprehensive secondary physics teachers book 2 pages 37-39Secondary physics KLB students book 2 page 186-189Principles of physics (M.Nelkom) pages Golden tips physics page 93 |  |
| 3 | 1-2 | Sounds  | Propagation of sounds | By the end of the the lesson, the learner should be able to:Show that light does not travel in vacuum | Demonstrating that sound requires a materials random for perpetration | Bell jarVacuum pumpElectric bell | Comprehensive secondary physics students book 2 pages 74Comprehensive secondary physics teachers book 2 pages 37-39Secondary physics KLB students book 2 page 190-193Principles of physics (M.Nelkom) pages Golden tips physics page 94 |  |
|  | 3-4 | Sounds | Nature of sound waves | By the end of the lesson, the learner should be able to:Describe the nature of sound waves | Describing and observing the characteristics of sound waves using the echo methods to find the speed of soundDiscussions | Open tubeClosed tubeStringsbottles | Comprehensive secondary physics students book 2 pages 74-76Comprehensive secondary physics teachers book 2 pages 37-39Secondary physics KLB students book 2 page 194Principles of physics (M.Nelkom) pages Golden tips physics page 93 |  |
| 4 | 1-2 | Sound  | Speed of sound | By the end of the lesson, the learner should be able to:Determine the speed of sound in air by echo methods | Investigating the factors determining the speed of sound | Stop clock/watchChart on procedure for formulating the speed of sound | Comprehensive secondary physics students book 2 pages 77-78Comprehensive secondary physics teachers book 2 pages 37-39Secondary physics KLB students book 2 page 190-193Principles of physics (M.Nelkom) pages Golden tips physics page 95 |  |
|  | 3-4 | Sound | Factors affecting the speed of sound | By the end of the lesson, the learner should be able to:State factors that affect the speed of sound | Discussing how different aspects of nature affects the speed of sound | Sources of soundSolidWaterAir | Comprehensive secondary physics students book 2 pages 78-79Comprehensive secondary physics teachers book 2 pages 38-39Secondary physics KLB students book 2 page 193Principles of physics (M.Nelkom) pages Golden tips physics page 95 |  |
| 5 | 1-4 | Sound  | Revision  | By the end of the lesson, the learner should be able to:Solve problems involving sound | Questions and answersCarrying out projects | Exercise in the students book 2 | Comprehensive secondary physics students book 2 pages 79-80Comprehensive secondary physics teachers book 2 pages 39Secondary physics KLB students book 2 page 198-203Principles of physics (M.Nelkom) pages Golden tips physics page 96 |  |
| 6 | 1-2 | Fluid Flow | Structure and turbulent flow | By the end of the lesson, the learner should be able toDescribe the streamline and turbulent flow | DiscussionsObserving and defining Streamline and turbulent flow | WaterPipes of varying diameterSheet of paper | Comprehensive secondary physics students book 2 pages 81Comprehensive secondary physics teachers book 2 pages 40-42Secondary physics KLB students book 2 page 204-208Principles of physics (M.Nelkom) pages Golden tips physics page 48 |  |
|  | 3-4 | Fluid Flow | Equation of continuity | By the end of the lesson, the learner should be able toDerive the equation of continuity | Deriving the equation of continuityDiscussions  | pipes of varying diametercharts on equation of continuity | Comprehensive secondary physics students book 2 pages 82Comprehensive secondary physics teachers book 2 pages 40-42Secondary physics KLB students book 2 page 210-215Principles of physics (M.Nelkom) pages Golden tips physics page 49 |  |
| 7 | 1-2 | Fluid Flow | Bernoulli’s effect | By the end of the lesson, the learner should be able toDescribe experiments to illustrate Benoullli’s effect | Illustrating Bernoulli’s effect by experiments | Paper funnelPlane paper | Comprehensive secondary physics students book 2 pages 83-84Comprehensive secondary physics teachers book 2 pages 40-42Secondary physics KLB students book 2 page 215-221Principles of physics (M.Nelkom) pages Golden tips physics page 49 |  |
|  | 3-4 | Fluid Flow | Application of Bernoulli’s effect | By the end of the lesson, the learner should be able to: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 84-87Comprehensive secondary physics teachers book 2 pages 40-42Secondary physics KLB students book 2 page 221-231Principles of physics (M.Nelkom) pages Golden tips physics page 49-50 |  |
| 8 | 1-4 | Fluid Flow | Revision | By the end of the lesson the learner should be able to:Solve problems involving the equilibrium of continuity | Answering the questionsDiscussing answers to assignment | Exercise in the students’ book 2assignment | Comprehensive secondary physics students book 2 pages 88Comprehensive secondary physics teachers book 2 pages 42Secondary physics KLB students book 2 page 231-234Principles of physics (M.Nelkom) pages Golden tips physics page 50 |  |
| **9-10** | **1-4** | **TOPICAL REVISION** |  |
| **11** |  | **END YEAR EXAMINATIONS** |  |
| **11** |  | **END YEAR EXAMINATIONS** |  |
| **12** |  | **REPORT MAKING AND CLOSURE** |  |