Dennis

SCHEME OF WORK PHYSICS

FORM 1 2022 TERM I

ENDARASHA BOYS

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| **WK** | **LSN** | **TOPIC** | **SUB- TOPIC** | **OBJECTIVES** | **T/L ACTIVITIES** | **T/L AIDS** | **REFERENCE** | **REMARKS** |
| **3** | 1 | Introduction To Physics | Physics as a science | By the end of the lesson, the learner should be able to:  Explain what the study of physics involves Relate physics to other subjects and to technology  Identify career opportunities related to physics | Discussions of value and meaning of physics Drawing flow charts of the braches of physics Listing career opportunities related to physics | Chart on definition of physics  Flow charts on branches of physics Chart on scientific method  List of career related to physics | Comprehensive secondary physics  Students Book 1 page 1-2  Teacher?s Book 1 pages 1-  3  Secondary Physics students Book 1 (KLB) pages 1-6 |  |
| 2-3 | Introduction To Physics | Basic laboratory rules | By the end of the lesson, the learner should be able to:  State and explain the basic laboratory rules | Discussions Explanation of rules | Chart on standard laboratory rules Pictures showing dangers of not observing laboratory rules | Comprehensive secondary physics  Students Book 1 page 1-2  Teacher?s Book 1 pages 1-  3  Secondary Physics students Book 1 (KLB) pages 6-7 |  |
| 4 | Measurements | Measuring length, area volume and mass | By the end of the lesson, the learner should be able to:  Define length, area, volume, mass and state their symbols and SI units | Conversions Measuring Experiment Counting Demonstrations | Meter rule Burette Pipette  Measuring cylinder Weighing balance Rod  Shadow | Comprehensive secondary physics  Students Book 1 page 4-8  Teacher?s Book 1 pages 4-  6  Secondary Physics students Book 1 (KLB) pages 8,22,14,33  Golden tips physics pages 1-7  Principles of Physics(M.Nelkon) pages 4-9 |  |
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| **4** | 1 | Measurements | Measuring density | By the end of the lesson, the learner should be able to:  Determine and mentally explain the density of substances  Work our density of mixtures  Solve numerical problems involving density | Experiment  Working out answers to problems | Measuring cylinder Mass weighing balance Density bottle | Comprehensive secondary physics  Students Book 1 page 9-12  Teacher?s Book 1 pages 4-  6  Secondary Physics students Book 1 (KLB) pages 35-48  Golden tips physics pages 7,10 |  |
| 2-3 | Measurements | Measuring instruments | By the end of the lesson, the learner should be able to:  Use measuring instrument accurately Metre rule, tape measure, beam balance, stop clock, measuring cylinder, pipette and burette | Demonstrations Reading scales and correcting errors | Meter rule Pipettes Burettes Stop watches  Tape measure Measuring cylinder, beam balance | Comprehensive secondary physics  Students Book 1 page 6-7  Teacher?s Book 1 pages 5-  6  Secondary Physics students Book 1 (KLB) pages 10,28  Golden tips physics pages 2  Principles of Physics(M.Nelkon) pages 7-9 |  |
| 4 | Measurements | Measuring Time | By the end of the lesson, the learner should be able to:  Determine experimentally, the measurement of time | Experiments with pendulum Timing events | Pendulum Clock Watch | Comprehensive secondary physics  Students Book 1 page 12-  15  Teacher?s Book 1 pages 6 Secondary Physics students Book 1 (KLB) pages 46-47  Golden tips physics pages 8  Principles of Physics(M.Nelkon) pages 23 |  |
| **5** | MID TERM EXAMS AND BREAK | | | | | | | |

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| **6** | 1 | Forces | Types of forces | By the end of the lesson, the learner should be able to:  Define force and state its SI units  Describe types of forces State the effects of force | Discussions Explaining Demonstrations Identifying effects of forces | Charts of force String  Elastic material Magnets  Water Greece  Oil spring balance | Comprehensive secondary physics  Students Book 1 page 61-  19  Teacher?s Book 1 pages 6-  10  Secondary Physics students Book 1 (KLB) pages 49-68  Golden tips physics pages 11-12  Principles of Physics(M.Nelkon) pages 64-65 |  |
| 2-3 | Forces | Mass and weight | By the end of the lesson, the learner should be able to:  State and explain the relationship between mass and weight  Define scalar and vector magnitude | Demonstrations Discussions Problems solving on mass and weight | Beam balance Spring balance Sponge  Store Polythene | Comprehensive secondary physics Students Book 1 page 17-22  Teacher?s Book 1 pages 6-  10  Secondary Physics students Book 1 (KLB) pages 72-75  Golden tips physics pages 7  Principles of Physics(M.Nelkon) pages 40 |  |
| 4 | Forces | Pressure and force | By the end of the lesson, the learner should be able to:  Define pressure and state its SI units  Determine pressure exerted by solids | Discussions Demonstrations Problem solving | Block of wood Spring balance Meter rule | Comprehensive secondary physics  Students Book 1 page 6-10  Teacher?s Book 1 pages 6-  10  Secondary Physics students Book 1 (KLB) pages 82-85  Golden tips physics pages 44  Principles of Physics(M.Nelkon) pages 119-121 |  |
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| **7** | 1 | Forces | Surface tension | By the end of the lesson, the learner should be able to:  Describe experiments to illustrate cohesion, adhesion and surface tension  State the factors affecting surface tension, its consequence and importance | Discussions Demonstrations Explaining the effects of surface tensions | Funnel Water Wire loop Tap  Soap/detergent | Comprehensive secondary physicsStudents Book 1  page 19-22  Teacher?s Book 1 pages 6-  10  Secondary Physics students Book 1 (KLB) pages 63-70  Golden tips physics pages 12 |  |
| 2-3 | Forces | Measuring Force | By the end of the lesson, the learner should be able to:  Measure weight using spring balance  Solve numerical problems on numerical forces | Discussions Experiments | Spring balance Chart on vectors and scalars | Comprehensive secondary physics  Students Book 1 page 17-  18  Teacher?s Book 1 pages 17-15 |  |
| 4 | Pressure | Pressure in liquids | By the end of the lesson, the learner should be able to:  Investigate experimentally the factors that affect pressure in liquids (Fluids)  Derive the formula for calculating pressure in fluids  State the principle of transmission of pressure in fluids | Demonstrations Working out problems Discussions Experiments | Communication tubes Tin with holes at different heights Waters | Comprehensive secondary physics Students Book 1 page 27-30  Teacher?s Book 1 pages 12-15  Secondary Physics students Book 1 (KLB) pages 49-68  Golden tips physics pages 44-45  Principles of Physics(M.Nelkom) pages 121-124 |  |
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| **8** | 1 | Pressure | Pressure in gases | By the end of the lesson, the learner should be able to:  Explain atmospheric pressure and its effects State and explain how pressure is transmitted in fluids | Demonstrations Explanation of pressure transmission in fluids discussions | Water/oil Syringe | Comprehensive secondary physics Students Book 1 page 25-26,30-32  Teacher?s Book 1 pages 12-15  Secondary Physics students Book 1 (KLB) pages 115-116,93-100  Golden tips physics pages 45-46  Principles of Physics(M.Nelko) pages 124 |  |
| 2-3 | Pressure | Ganges and siphons | By the end of the lesson, the learner should be able to:  Describe the working of siphon and pressure gauge | Discussions Explanations Questions and answers | Barometer Bourdon gauge Syringes | Comprehensive secondary physics Students Book 1 page 31-34  Teacher?s Book 1 pages 13-15  Secondary Physics students Book 1 (KLB) pages 113,117  Golden tips physics pages 44-45  Principles of Physics(M.Nelko) pages 133 |  |
| 4 | Pressure | Revision on question on the topic pressure | By the end of the lesson, the learner should be able to:  Answer questions on pressure | Questions and answers | Questions in students book 1 | Comprehensive secondary physics  Students Book 1 page 39-  41  Teacher?s Book 1 pages 13-15  Secondary Physics students Book 1 (KLB) pages 119-123  Golden tips physics pages 54-55  Principles of Physics(M.Nelko) pages 138-140 |  |
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| **9** | 1 | Pressure | Application of pressure in liquids and gases | By the end of the lesson, the learner should be able to:  Explain the working of a hydraulic, braking system of vehicle Explain the working of mercury and forties barometer, bicycle pump and pressure gauges | Explaining the application of pressure in liquids and gases  Class discussion on the principles of pressure in liquids  Experiments | Chart showing the working of a hydraulic braking system  Model of hydraulic brake system Barometer  Bicycle pump | Comprehensive secondary physics Students Book 1 page 30-39  Teacher?s Book 1 pages 13-15  Secondary Physics students Book 1 (KLB) pages 96-112  Golden tips physics pages 46-47  Principles of Physics(M.Nelko) pages 124-132 |  |
| 2-3 | Particulate Nature Of Matter | States of matter | By the end of the lesson, the learner should be able to:  By the end of the lesson, the learner should be able to show that matter is made of up tiny particles | Demonstration Discussions of kinetic theory | Beaker Crystals Solutes Solvent | Comprehensive secondary physics Students Book 1 page 42  Teacher?s Book 1 pages 15-18  Secondary Physics students Book 1 (KLB) pages 124-128  Golden tips physics pages 68  Principles of Physics(M.Nelko) pages 142 |  |
| 4 | Particulate Nature Of Matter | The Brownian motion | By the end of the lesson, the learner should be able to:  Give evidence that matter is made up of tiny particles  Demonstrate the Brownian motion in liquids & gases  Explain the arrangement of particles in matter Explain the state on matter in terms of particle movement | Experiments Observations Discussions | Chalk dust Transparent lid Pollen grains Lens  Beaker Smoke cell  Source of light | Comprehensive secondary physics  Students Book 1 page 43-  48  Teacher?s Book 1 pages 15-18  Secondary Physics students Book 1 (KLB) pages 127-130  Golden tips physics pages 68  Principles of Physics(M.Nelko) pages 148-150 |  |

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| **10** | END OF TERM EXAMS | | | | | | | |

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