City Governments Of Addis Ababa Education bureau
Curriculum development and implementation directorate.

Subject Physics GRADE 7 make up class						
No	Unit	Content	Sub content	No of periods (at normal condition)	No of condensing periods	Objectives of the unit
	1	Physics and Measurement	1.1. Definition of physics 1.2. Standardization and measurements 1.3. Measuring length, mass and time	7	2	✓ Appreciate the interrelatedness of all things. ✓ Search for patterns or relationships in experimental data. ✓ use a wide range of possibilities for developing knowledge of the major concepts with in physics
	2	Motion	2.1 Definition of motion. 2.2. Motion along a straight line. 2.3. Qualitative exploration of constant velocity and accelerated motion.	8	2	✓ Understand concepts related to motion. ✓ Develop skill of manipulating numerical problems related to motion. ✓ Appreciate the interrelatedness of all things. ✓ Use a wide range of possibility for developing knowledge of the major concepts with in physics.
	3	Force and Newton's Laws of Motion	3.1. Force 3.2. Newton's laws of motion. 3.3. Frictional force	10	3	✓ Develop a qualitative understanding of Newton's laws of motion and force in static situations. ✓ Develop introductory

						skill of manipulating numerical problems related to Newton's law of motion and force. ✓ Appreciate the interrelatedness of all things. ✓ Use a wide range of possibilities for developing knowledge of the major concepts with in physics.
	4	Work, Energy and Power	4.1. Work 4.2. Energy 4.3. Transformation and conservation of energy. 4.4. Power	8	2	✓ Understand concepts related to work, energy and power. ✓ Develop skill of manipulating numerical problems related to work, energy and power. ✓ Appreciate the interrelatedness of all things.
	5	Simple Machines	5.1. Definition of machine 5.2. Definition of MA, V.R and Efficiency 5.3. Types of simple machines	7	2	✓ Understand concepts related to simple machines. ✓ Develop skill of manipulating numerical problems related to simple machines. ✓ Appreciate the interrelatedness of all things.
	6	Temperature and Heat	6.1 Definition of Temperature 6.2 Measuring temperature 6.3 Temperature scales 6.4 Conversion of	9	3	✓ Understand concepts related to temperature and heat. ✓ Develop skill of manipulating numerical problems related to

			temperature scales 6.5 Source of heat 6.6 Effect of heating			temperature.
	7	Sound	7.1. Definition of sound 7.2. Production and transmission of sound 7.3. Speed of sound in different media 7.4. Reflection of sound 7.5. Application of echo sounding	5	1	✓ Understand concepts related to sound. ✓ Develop skill of manipulating numerical problems related to sound.
	8	Electricity and Magnetism	8.1 Magnets 8.2 Mapping magnetic lines of force 8.3 Uses of magnets 8.4 Electrostatics 8.5 Methods of charging 8.6 Law of electrostatics 8.7 Electric current and potential difference 8.8 Electric circuit	14	4	✓ Understand concepts related to electricity and magnetism. ✓ Develop skill of manipulating numerical problems related to electricity and magnetism. ✓ Appreciate the interrelatedness of all things. ✓ Use a wide range of possibilities for developing knowledge of the major concepts with in physics.
	TOTAL			**68**	19	
Subject <u>Physics</u> GRADE <u>8</u> make up class						
No	Unit	Content	Sub content	No of periods (at normal condition)	No of condensing periods	Objectives of the unit

	1	**Physics and Measurement**	• Measuring area • Measuring volume • Measuring density • Dimensional expression of physical quantities. • Scientific notation.	8	2	✓ Understand concepts related to basic measurements. ✓ Develop skill of measuring area, volume and density. ✓ Develop skill of measuring displacement, velocity. ✓ develop skills in producing and evaluating of a design project applying the laws of physics in its construction
	2	**Motion in One Dimension**	• Forces in physics • Motion in one dimension • Graphical representation of motions	10	2	✓ Differentiate uniform motion from uniformly accelerated motion and give examples for each. ✓ Solve further problems on average speed, average velocity and acceleration. ✓ Draw graphs to show the variation with time of distance, velocity and acceleration. ✓ Find and interpret the slope of s against t, v against t, a against t and area of v against t. ✓ Demonstrate scientific enquiry skills.
	3	**PRESSURE**	3.1 Definition and unit of pressure 3.2 Liquid	9	2	✓ Define pressure and state dimension and SI unit of pressure.

			pressure 3.3 Pascal's principle 3.4 Atmospheric Pressure 3.5 Measuring atmospheric pressure 3.6 Applications of pressure			✓ use the formula P =F/A to solve numerical problems. ✓ Describe factors that affect liquid pressure. ✓ Demonstrate how liquid pressure varies with depth. ✓ Apply P =, to solve the pressure exerted by liquids. ✓ State the Pascal's principle and demonstrate the existence of atmospheric pressure using crushing can experiment. ✓ Explain how siphons & pumps function and demonstrate how they transfer liquids from one container to another. ✓ Demonstrate the scientific inquiry. ✓ develop scientific attitudes and values..
	TOTAL			**27**	6	

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