

Academic Year 2016/2017

Mrs. Lucy Penenian

Grade 11 Humanities

Physics

Contents	Learning objectives
Work and Energy	Define work, where force and displacement are parallel, as $W=F \times d$
Work and Mechanical energy	<ul style="list-style-type: none">-Recognize that potential energy is position dependent. (gravitational $PE= m \times g \times h$)-Recognize the translational kinetic energy is velocity-dependent.-Know that mechanical energy is the sum of PE and KE
Forms of Energy	<ul style="list-style-type: none">-Relate thermal energy to changes in temperature and changes in state.-Explain that chemical energy is stored in elements and compounds and may appear in different forms during and after a chemical reaction.-Relate electrical energy to charge and voltage-Know that nuclear energy is due to nuclear forces-Relate mass to energy ($E= mc^2$)-Explain that heat energy accompanies all types of energy conversions
Sources of Energy and the pollution they cause	<ul style="list-style-type: none">-Give examples of sources of energy of each form-Identify renewable primary sources of energy-Identify non-renewable primary sources of energy-Describe the pollution due to different sources of energy.-Identify the effects of pollution on environment and health.