


Learning Plan 4		Subject/Pwnc: Gwyddoniaeth	Year/Blwyddyn: 8
<p><b><u>The Four Purposes in Science and Technology:</u></b></p> <p><b>Ambitious, capable learners</b> who: set themselves high standards; seek and enjoy challenge; are increasingly knowledgeable and skilful; are questioning; enjoy solving problems; can communicate effectively; can explain the ideas and concepts; can use number effectively; understand how to interpret data and apply mathematical concepts</p> <p><b>Enterprising, creative contributors</b> who: connect and apply their knowledge and skills to create ideas; think creatively to reframe and solve problems; identify and grasp opportunities; take measured risks</p> <p><b>Ethical, informed citizens</b></p> <p><b>Healthy, confident individuals</b> who: face and overcome challenge; have the skills and knowledge to manage everyday life</p>			
<p><b>Knowledge focus/what matters:</b></p> <p>Being curious and searching for answers. The world around us is full of living things which depend upon each other for survival.</p>			
Learning intention/key question	What will I know and be able to do? I can...	How will I develop my skills? (Success Criteria)	Homework/Gwaith cartref to support progress
<p>Weeks 1 - 3:</p> <p>Our world has vast energy demands – where will this energy come from?</p>	<p>Describe the formation of fossil fuels &amp; the impact of burning them on the atmosphere.</p> <p>Compare and contrast the advantages of burning non-renewable fuels.</p>	<p>I can model how fossil fuels were formed over millions of years. I can explain how CO<sub>2</sub> is affecting our atmosphere.</p> <p>I can justify the move to renewables through an extended writing task.</p>	<p>Wk 1</p> <p>Set:</p> <p>Due:</p>

	<p>Model how mains electricity is generated in a power station. Evaluate the pros &amp; cons of renewable types of energy.</p> <p>Categorize various activities into types of energy.</p> <p>Appreciate that energy is always transferred from one type to another – it is conserved. Use the energy efficiency equation.</p>	<p>I can link any activity into the correct type of energy.</p> <p>I can calculate energy efficiency from the equation.</p>	Wk 2	<p>Set:</p> <p>Due:</p>
<p>Week 4 - 5:</p> <p>How do we get energy for our bodies &amp; how much do we pay for energy for our homes?</p>	<p>Gather data from food labels to compare energy sources. Interpret bar charts to compare energy requirements.</p> <p>Model energy requirements by completing the burning food investigation.</p> <p>Appreciate that different devices have different power ratings – units of watts (W).</p> <p>Use the power equation &amp; know the units involved.</p> <p>Link the power equation to the cost per unit.</p>	<p>I can extract &amp; use data from food labels. I can compare energy requirements depending on both the person and the activity.</p> <p>I can interpret data from a bar chart.</p> <p>I can determine the energy in a food accurately and safely.</p> <p>I can calculate power using the power equation. I can calculate cost of energy bills by applying cost per unit to number of units used.</p>	Wk 3	<p>Set:</p> <p>Due:</p>