


Learning Plan 3		Subject/Pwnc: Gwyddoniaeth	Year/Blwyddyn: 7
<p><u>The Four Purposes in Science and Technology:</u></p> <p>Ambitious, capable learners 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>Enterprising, creative contributors 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>Ethical, informed citizens</p> <p>Healthy, confident individuals who: face and overcome challenge; have the skills and knowledge to manage everyday life</p> <p>Knowledge focus/what matters: 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
Weeks 1 - 2: What is sound?	Describe a wave as a vibration that transfers energy without transferring mater. Compare and contrast transverse and longitudinal waves and their properties. Model how loudness of sound is linked to amplitude and pitch is linked to frequency.	I can describe the motion of a wave using the terms of wavelength, amplitude & frequency. I can explain the difference between transverse & longitudinal waves. I can interpret sound traces and link to loudness to amplitude & pitch to frequency.	Wk 1 Set: Due:

	Link how sound is produced and travels through different materials.	I can explain why sound travels at different speed through solids, liquids & gases using particle theory & vibrations.	Wk 2	Set: Due:
Week 3: Apply ultrasound to how both animals & humans use it in real life.	Compare the range of human hearing to animals. Recall the parts of the ear & describe how humans hear a sound. Give ways hearing is damaged and how to prevent this. Describe an echo & how animals use echoes to measure distance for hunting. Describe ultrasound and some practical uses.	I can use the decibel scale to compare the range of hearing for various animals. I can link the parts of the ear to their role. I can explain how loudness in everyday life can affect hearing & hearing loss. I can relate ultrasound to the practical applications in real life.	Wk 3	Set: Due:
Weeks 4 - 6 Are the chemicals we use in the lab the same as those in everyday life?	Recognise common acids and alkalis. Compare the differences between acids and alkalis. Use indicators to identify them and describe their dangers. Interpret pH values using universal indicator. Explain neutralisation both chemically and in regular usage. Produce an indicator and test it for accuracy.	I can explain how everyday objects can be classed as an acid, neutral or an alkali. I can use indicators to achieve this. I can place chemicals on the pH scale. I can explain the neutralisation reaction in terms of the pH scale. I can link neutralisation to everyday applications such as farming and nature. I can produce an indicator from red cabbage and test it to see if it works.	Wk 4	Set: Due: