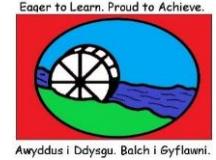
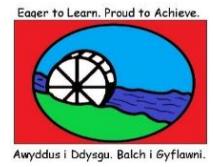


Cwmfelin Primary School Medium Term Planning



Term: Spring 1	Class: 2	AOLE Focus: Science & Technology						
Inquiry: Making Waves	Question: How can we change light and sound to make shadows, reflections, and different noises?							
Rationale This inquiry is designed to spark curiosity and deepen learners' understanding of how light and sound behave in the world around them. By exploring concepts such as shadows, reflections, and sound vibrations, children develop a foundation in scientific thinking while engaging in hands-on investigations. These experiences encourage observation, prediction, and reasoning , helping learners to make connections between cause and effect in everyday phenomena. Through practical activities—such as creating shadows, experimenting with pitch, and investigating how sound travels—pupils will build problem-solving skills and learn to apply scientific knowledge creatively. The inquiry also promotes collaboration and communication , as learners share ideas, ask questions, and work together to test hypotheses. These skills are essential for developing confidence and independence in scientific inquiry.								
<table border="1"><thead><tr><th>Knowledge (Knowledge that)</th><th>Skills (Knowledge how)</th><th>Experiences (Knowledge of)</th></tr></thead><tbody><tr><td>I know...<ul style="list-style-type: none">Shadows form when an object blocks light.Shadows change size and shape depending on the position of the light source.Materials can be: Transparent, Translucent or Opaque.Sound is made by vibrations.Sounds can be loud or quiet depending on vibration strength.Pitch (high or low sound) changes with: Tightness of a rubber band / Amount of water in a glass.Sound can travel through different materials and that some materials carry sound better than others.</td><td>I know how to...<ul style="list-style-type: none">Plan and carry out investigations, making predictions, and use evidence to support reasoning.Observe carefully, ask simple questions, make predictions, and record findings using charts or drawings.Use equipment safely, measure and compare outcomes, follow methods, and collaborate effectively.Explain cause-and-effect (e.g., shadows, pitch), choose suitable materials, and apply creative approaches to problem-solving.</td><td>I have ...<ul style="list-style-type: none">Undertaken a range of scientific practical investigations.Created shadows using different light sources.Classified and sorted materials based on their properties of transparency.Created sounds using a range of sound sources and changed volume/pitch.</td></tr></tbody></table>			Knowledge (Knowledge that)	Skills (Knowledge how)	Experiences (Knowledge of)	I know... <ul style="list-style-type: none">Shadows form when an object blocks light.Shadows change size and shape depending on the position of the light source.Materials can be: Transparent, Translucent or Opaque.Sound is made by vibrations.Sounds can be loud or quiet depending on vibration strength.Pitch (high or low sound) changes with: Tightness of a rubber band / Amount of water in a glass.Sound can travel through different materials and that some materials carry sound better than others.	I know how to... <ul style="list-style-type: none">Plan and carry out investigations, making predictions, and use evidence to support reasoning.Observe carefully, ask simple questions, make predictions, and record findings using charts or drawings.Use equipment safely, measure and compare outcomes, follow methods, and collaborate effectively.Explain cause-and-effect (e.g., shadows, pitch), choose suitable materials, and apply creative approaches to problem-solving.	I have ... <ul style="list-style-type: none">Undertaken a range of scientific practical investigations.Created shadows using different light sources.Classified and sorted materials based on their properties of transparency.Created sounds using a range of sound sources and changed volume/pitch.
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Cross-curricular opportunities: Literacy: Shadow Story Writing Numeracy: Shadow measuring during the course of the day DCF: Use Adobe Express to create a short video of how to create a box guitar	Vocabulary: Light, Source, Shadow, Torch, Transparent, Translucent, Opaque, Reflection, Mirror, Sun, Sound, Vibration, Pitch, Loud, Quiet, Rubber band guitar, Tuning fork, Speaker, Cup and string telephone, Observe, Observation, Predict, Prediction, Record, Recording results, Compare, Contrast, Classify, Classification, Materials, Measure, Measurement, Estimate Immersion activity: Musical instrument carousel afternoon – Pupils to try to play a variety of instruments Showcase: Musical performance using box guitars for other classes / outdoor performance for parents							



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