Learning Plan 5	Subject/Pwnc: Gwyddoniaeth	Year/Blwyddyn: 7

The Four Purposes in Science and Technology:

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

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

Ethical, informed citizens

Healthy, confident individuals who:
face and overcome challenge; have the skills and knowledge to manage everyday life

Knowledge focus/what matters:

Being Curious and searching for answers. The Solar System and space exploration

Learning objective/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 natural phenomenon do we observe in our Solar System?	• Analyse planetary data and identify trends i.e. the trend linking distance from the Sun to the temperature of a planet. • Use ICT to create a scale model of the planets in the Solar System.	I can use my findings to draw conclusions I can engage with scientific and technological evidence to inform my own opinions. I can review my own opinions based on new scientific evidence.	Wk 1 -2	Set: Due:

	• Explain the phases of the moon. • Know what a conspiracy theory is and examine evidence about the moon landings. • Analyse what causes solar and lunar eclipses.	I can describe the impacts of science and technology, past and present, on society. I can read to identify different people's viewpoints. I can distinguish between facts / evidence, theories, opinions and bias. I can recall and apply my mathematical knowledge of time and angles, making links to scientific concepts (such as rotation, axes, orbits).		
Week 3 - 4: Learn about the history of space exploration.	• Appreciate how knowledge about space is advanced by having a station permanently located there. Learn how the International Space Station contributes to new discoveries.	Read with concentration, texts that are new to them, and understand the information in them. Use a range of strategies for finding information e.g. speed reading, close reading, annotation, prediction, to skim texts for gists, key ideas and themes, and scan for detailed information. Read to build tier 2 and tier 3 vocabulary and use these effectively in their communication to explain.	Wk 3-4	Set: Due:
	Show Your Learning Compare and contrast various exploration missions to Mars. Link the design of the spacecraft/explorer to its mission. Research and explain the main findings of the missions.	Select the main points from text and identify how information and evidence are used to support them.		
Weeks 5 -6 Current Exploration	• Research how space-based telescopes can explore space beyond our Solar System much more than land-based ones.	I can research at least two current space programmes in terms of their aims and how the spacecraft matches the objectives of the mission.	Wk 5-6	Set:

	• Research how interplanetary probes are designed with a specific mission in mind. • ARTEMIS II			Due: