Learning Plan 3	Subject/Pwnc: Gwyddoniaeth	Year/Blwyddyn: 9

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 world around us is full of living things which depend upon each other for survival.

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: How can plants convert sunlight (light energy) into food (chemical energy)?	Understand the word equation and the process for photosynthesis – how it underpins life on Earth. Explain the adaptations that plants have that enable them to make their own food in terms of light and gas exchange.	I can identify the reactants and products of photosynthesis. I can explain how plants are adapted to absorb light for photosynthesis and gas exchange & the importance of this.	Wk 1	Set: Due:

	Describe the processes of pollination and fertilisation in flowering plants. Link food security to habitat loss and the importance the biodiversity topic.	I can make links to mathematical knowledge of area, to estimate the surface area of a leaf. I can explain the importance of insects for human food security.	Wk 2	Set: Due:
Week 3 - 4 What are the ethical issues around intensive farming and cheap food?	Illustrate the impact of intensive farming by applying examples to real-world scenarios. Classify farming practices as intensive or sustainable.	I can apply the impact of intensive farming to real-world scenarios e.g., supermarket food choices, climate change. I can classify farming methods from given case studies.	Wk 3	Set: Due:
Week 5 – 6 How do cells combine to make a living being?	Define examples of tissues and organs and organ systems. Explain the organisation of multicellular organisms and how they work together. Model how living organisms build up from a single cell to whole systems. Familiar with a selection of human organ systems, namely, muscles, breathing, circulatory and the digestive systems.	I understand the hierarchy of development from cell to organ systems. I know that cells form tissues that can form an organ leading to organ systems. I can create an analogy to compare cell organisation to other models. I can examine several organ systems in the human body.		Set: Due: