



MAGHULL HIGH SCHOOL – CURRICULUM MAP

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| Unit: Energy Transfers | 1. Photosynthesis 2. Respiration | 3. Energy and ecosystems 4. Nutrient Cycles | |
| LESSONS | | | |
| Knowledge & Skills Development | <ul style="list-style-type: none"> Recall the light dependent reaction in detail Identify environmental factors that limit the rate of photosynthesis Evaluate data relating to common agricultural practices Recall the stages of glycolysis Recall the equations for aerobic and anaerobic respiration Define gross primary production and net primary production | <ul style="list-style-type: none"> Calculate the net production of consumers Simplify food webs to reduce energy losses to non-human food chains Describe and explain the role of microorganisms in recycling phosphorus and nitrogen Describe the use of fertilisers and the negative impacts they can have on the environment such as leaching and eutrophication | |
| Assessment / Feedback Opportunities | Formative Assessment Teacher questioning Quizzes Exam style questions Essays | Summative assessment Topic assessment Exam questions in future end of topic assessments to assess recall | |
| Key Vocabulary | Independent Variable, Dependent Variable, Control Variables, Method, Conclusion, Precaution, Evaluation, Reliable, Precision, Valid, Anomaly, Describe, Explain, Compare, Analyse, Calculate, Suggest, Absolute, Uncertainty, Error Photosynthesis, glucose, photolysis, Chloroplast, thylakoid, stroma, chloroplast, anaerobic, aerobic, glycolysis, oxidation, biomass, trophic level, microorganism, decomposers, eutrophication | | |
| Literacy/Reading Opportunities | Subject specific vocabulary introduced before reading of related texts Word etymology from Latin and Greek roots Reading of simple and complex sentences, paragraphs, articles Scientific writing including structuring methods, comparisons and evaluations Synoptic essay writing | | |
| Cross Curricular Themes | Numeracy/Maths – averages (means), reading scales, graph plotting, lines of best fit, using and rearranging equations, using scientific calculators, significant figures | | |

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| Personal Development (Including British Values, RSE, Citizenship) | None |
| Career Opportunities | Wildlife conservationists, Farmer, botanist, agriculturist, herbalist |