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| **What will we be learning?****Photosynthesis** | **Why this? Why now?** Previous Learning InterdependencePlant ReproductionFuture Learning **GCSE** – Organisation (transport in plants) and Bioenergetics**A Level** – Transport in Plants and PhotosynthesisEnquiry ProcessesAnalyse Patterns, Draw conclusions, Present data, Justify opinions, Collect data, Present data, Predict, Plan variables, Evaluate Investigations | **Key Words:**chlorophyllchloroplastphotosynthesiscarbon dioxideoxygenglucosestarchfertilisationpollenantherovulestigmapollinationadaptationtranspirationxylempotometerstomata |
| **What will we learn?*** Ways in which plants obtain resources for photosynthesis.
* Why other organisms are dependent on photosynthesis.
* How the rate of photosynthesis is affected by changing conditions.
* Word equation to describe photosynthesis in plants and algae.

**Misconceptions in this topic*** Plants obtain their energy directly from the sun.
* Plants have multiple sources of food (heterotrophic as well as autotrophic).
* Carbon dioxide, water, and minerals are food.
* Plants feed by absorbing food through their roots.
* Sunlight is a food.
* Sunlight is consumed in photosynthesis.
* Plants absorb water through their leaves.
* Plants produce oxygen for our benefit.
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| **What opportunities are there for wider study?**CareersFarmer Agriculture Gardener Horticulture Botanist Ecologist Environmental ScientistPlant breeder FloristSTE(A)M <https://highcliffe.sharepoint.com/sites/LearnSTEM> |
| **How will I be assessed?**End of Topic Assessment |