



Pupil flightpath		Mastery Steps		
GCSE target	KS2 start point	Knowledge and Understanding	Skills and application	Analysis and evaluation
8/9	117-120	<ul style="list-style-type: none"> Plants and algae do not eat, but use energy from light, together with carbon dioxide and water to make glucose (food) through photosynthesis. They either use the glucose as an energy source, to build new tissue, or store it for later use Plants have specially-adapted organs that allow them to obtain resources needed for photosynthesis 	<ul style="list-style-type: none"> Explain why other organisms are dependent on photosynthesis 	<ul style="list-style-type: none"> Critique claims for a food product or diet by analysing nutritional information Suggest how particular conditions could affect plant growth Suggest reasons for particular adaptations of leaves, roots and stems
6/7	102-116	<ul style="list-style-type: none"> The body needs a balanced diet with carbohydrates, lipids, proteins, vitamins, minerals, dietary fibre and water, for its cells' energy, growth and maintenance Organs of the digestive system are adapted to break large food molecules into small ones which can travel in the blood to cells and are used for life processes 	<ul style="list-style-type: none"> Describe possible health effects of unbalanced diets from data provided Describe how organs and tissues involved in digestion are adapted for their role Describe the events that take place in order to turn a meal into simple food molecules inside a cell Describe ways in which plants obtain resources for photosynthesis 	<ul style="list-style-type: none"> Make deductions from medical symptoms showing problems with the digestive system Compare the movement of carbon dioxide and oxygen through stomata at different times of day
4/5	85-101	<ul style="list-style-type: none"> Iron is a mineral important for red blood cells Calcium is a mineral needed for strong teeth and bones Vitamins and minerals are needed in small amounts to keep the body healthy Iodine is used to test for the presence of starch 	<ul style="list-style-type: none"> Calculate food requirements for a healthy diet, using information provided Sketch a line graph to show how the rate of photosynthesis is affected by changing conditions Use a word equation to describe photosynthesis in plants and algae 	<ul style="list-style-type: none"> Design a diet for a person with specific dietary needs
2/3	80-84	Enzymes, Dietary fibre, Carbohydrates, Lipids (fats and oils), Protein, Stomach, Small intestine, Large intestine, Gut bacteria, Fertilisers, Photosynthesis, Chlorophyll, Stomata		