Unit	Content
1.1	**Characteristics/Classification of Life** Name and outline the main characteristics of life What is classification? Write a brief account of how classification systems have evolved over time? Originally just plants and animals, then a 5 kingdom system, then a 3 domain and 6 kingdom system
1.2	**Food** Outline the main chemical composition of carbohydrates, lipids and proteins Name trace elements and salts found in foods Distinguish between monosaccharides, disaccharides and polysaccharides, giving examples of each Outline a structural and metabolic role of carbohydrates Outline a structural and metabolic role of proteins Outline a structural and metabolic role of lipids Distinguish between fat-soluble and water-soluble vitamins, giving an example of each and naming a deficiency associated with each Outline the steps involved in the tests for sugar, fats, protein and starch knowing what chemicals are used in each and what colour denotes a negative and positive test
1.3	**Cell Structure** Outline the steps involved in examining plant and animals cells using the light microscope ensuring you know the stain used for each and where you obtained the sample for each experiment Identify parts of a microscope What type of microscope might you use instead of a light microscope to get more detailed images? Identify and outline the functions of the main structures of plant and animals cells. What two food types are found in cell membranes? Distinguish between prokaryotic and eukaryotic cells

2.1	**Enzymes** **D**efine what is meant by an enzyme and which food biomolecule group they belong to (proteins) Distinguish between a substrate and product Outline how enzymes work (induced-fit theory): active site, shape changing, enzymes specific to substrates, return to normal shape after products formed (diagram included) Differentiate between anabolic and catabolic enzymes and give an example of an anabolic and catabolic reaction in humans State factors that can affect enzyme activity Outline what is meant by enzymes being specific Outline what is meant by optimum activity and name enzymes that act best outside body temperature and pH of 7 (name an enzyme that works best at really high/low temperatures and pHs) State what immobilized enzymes are List advantages of using immobilized enzymes
2.3	**Cell Cycle & Cancer** Define what is meant by the terms mitosis, meiosis, haploid and diploid. Where does mitosis and meiosis take place? Outline the events that take place in interphase, prophase, metaphase, anaphase and telophases associated with mitosis How does the splitting of cells differ between animal and plant cells? (Mention cleavage furrow and cell plates) Outline functions of mitosis and meiosis State what cancer is. Outline causes of cancer Give an overview of how cancer can be detected, treated and prevented