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| **Week** | **Topic- Area of Study 1: Chemical nature of the cell** | **SACs/ Excursion/Homework** |
| 06/02 | Course structure/ Science skills/ experimental design/Pretesting | Due Thursday:  Chapter 1- Q 2,3,4 |
| 13/02 | Cells and their chemical nature. Talking about biomacromolecules | Due Monday:  Chapter 1 – Q 5,6,7,8  Due Thursday:  Chapter 1 – 9,10,11 |
| 20/02 | The plasma membrane and lipids. How substances cross over the plasma membrane. | Due Monday:  Chapter 2:  Concept map and definition of key words  Chapter 2- Q2,3,4,5  Due Thursday:  Chapter 2- Q 6,7,8 |
| 27/02 | Making biomacromolecules: complex carbohydrates, nucleic acids, proteins | SAC 1: Written report of a practical activity of movement of substances across the plasma membrane  Chapter 2 Summary (Monday) |
| 05/03 | Catalytic proteins: the how and why of enzyme action. Enzyme inhibition. |  |
| 12/03 | Chemical reactions in cells- a biochemical pathway. Energy requirements. |  |
| 19/03 | Photosynthesis: inputs and outputs of the light dependent and independent reactions. |  |
| 26/03 | Cellular respiration: glycolysis, aerobic and anaerobic cellular respiration | SAC 2: A summary report of a practical activity related to a biochemical process (enzyme activity) |
|  | **Term 1 Holiday** |  |
|  | **Area of study 2: Detecting and responding** |  |
| 16/04 | Rational drug design: Applying knowledge |  |
| 23/04 | Detecting and responding: applying the stimulus response model |  |
| 30/04 | Types of signals, receptors, the signal transduction pathway and cellular responses | SAC 3: A summary report on the response of an animal, plant or bacterium to chemical and/or physical stimuli |
| 07/05 | Detecting and responding to antigens: the immune system. Sources of antigens (non-self and self) |  |
| 14/05 | Physical barriers (plants and animals). The innate immune response: components and actions. The inflammatory response. | Excursion to GTAC (FRID 18/5)- Immunity and vaccines |
| 21/05 | The lymphatic system and the adaptive response: components and actions | SAC 4 (Thursday): A presentation on one aspect of the immune response |
| 28/05 | Immunity and vaccines: applying knowledge |  |
| 04/06 | Pre-examination overview |  |
| 11/06 | Unit 3- Biology Exam |  |