

BIOLOGY OCR**TERM 1 TOPIC LIST****2.1 Foundations in Biology**

- 2.1.1** cell structure and ultrastructure (eukaryotic)
staining specimens
- 2.1.2** Carbohydrates
 - Lipids/triglycerides and role in membranes
 - condensation and hydrolysis
 - structure & properties of cell membranes
 - Proteins: general structure, formation bonding
 - inorganic ions
 - cellulose/starch formation and structure
 - cell structure and ultrastructure (plant)
 - tests for bio. materials
- 2.1.3** ATP
 - DNA and RNA structure and bonding
 - DNA replication - cell cycle
 - genes: function, structure (triplet code), bonding, mutations,
- 2.1.4** enzymes: structure and function
- 2.1.5** cell membrane structure and properties
- 2.1.6** mitosis, meiosis and cell cycle/stem cells
 - Stem cells: in medicine and ethics
 - cells, tissues and organs organisation
 - plant: xylem and phloem structure
- WATER

TERM 2 TOPIC LIST**3.1 Exchange and transport**

- 3.1.1** gaseous exchange: adaptations
 - surface area vs volume ratio
- 3.1.2** Heart and circulation
 - Blood vessels structure and function
 - Blood: function and cell structure
- 3.1.3** Transport in plants: xylem and phloem
 - water in plants

4.1 Biodiversity evolution and disease

- 4.1.1** pathogens, disease
 - immunity and defence
 - drug safety and concerns
 - blood
- 4.1.2** concept of biodiversity and measurement
 - niche and adaptations to environment
- 4.2.2** classification of species
 - natural selection and evolution