**Combined– Paper 1 - Biology – Higher tier**

* **Cell Biology**
  + Parts of cells and their functions
  + Comparing different types of cells
  + Mitosis and the cell cycle
  + Stem cells and differentiation
* **Organisation**
  + Hierarchy of organisation
  + Circulatory system & non-communicable diseases
  + Blood
  + Cancer
  + Enzymes involved in digestion
  + RP - Food tests
  + RP – pH and amylase
* **Communicable diseases**
  + Animal and plant diseases
  + Antibiotics
* **Bioenergetics**
  + RP – Photosynthesis

**Combined– Paper 2 – Chemistry & Physics – Higher tier**

**Chemistry**

* **Atomic structure & the periodic table**
  + Metals and non-metals
  + G1 and G7
  + Balancing equations
  + Bohr’s model of the atom
* **Bonding, structure and properties of matter**
  + Ions and ionic bonding
  + Giant covalent structures, giant metallic structures and fullerenes
  + Bonding in polymers

**Physics**

* **Energy**
  + Global energy resources
  + RP - SHC
* **Electricity**
  + Electricity calculations involving current, resistance, potential difference and power
  + National grid

**Combined– Paper 1 - Biology – Foundation tier**

* **Cell Biology**
  + Magnification calculations
  + Diffusion
  + Mitosis and the cell cycle
  + Stem cells and differentiation
* **Organisation**
  + Hierarchy of organisation
  + Blood
  + Plant organs and tissues
  + Smoking
  + Digestive system and enzymes
  + RP - Food tests
* **Communicable diseases**
  + Animal and plant diseases and their treatments
* **Bioenergetics**
  + RP – Photosynthesis

**Combined– Paper 2 – Chemistry & Physics – Foundation tier**

**Chemistry**

* **Atomic structure & the periodic table**
  + Structure of the atom
  + G1
  + Periodic table
  + Changes of state
  + Dot and cross diagrams
  + Conservation of mass
* **Bonding, structure and properties of matter**
  + Ions and ionic bonding
  + Bonding in simple molecules
  + Giant covalent structures

**Physics**

* **Energy**
  + Calculating Ep, Ee
  + Changes in energy stores
  + Energy dissipation
  + RP - SHC
* **Electricity**
  + Circuit symbols
  + Electricity calculations involving current, resistance, potential difference and power
  + V/I characteristics