Edexcel iGCSE Biology 4BI0 Learning Plan

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| **Section E16: Chromosomes, Genes and DNA** |
| Specification | Resources | Assessment |
| 3.13 understand that the nucleus of a cell contains chromosomes on which genes are located 3.14 understand that a gene is a section of a molecule of DNA and that a gene codes for a specific protein 3.15 describe a DNA molecule as two strands coiled to form a double helix, the strands being linked by a series of paired bases: adenine (A) with thymine (T), and cytosine (C) with guanine (G) 3.16 understand that genes exist in alternative forms called alleles which give rise to differences in inherited characteristics3.31 understand that many mutations are harmful but some are neutral and a few are beneficial 3.32 understand that resistance to antibiotics can increase in bacterial populations, and appreciate how such an increase can lead to infections being difficult to control 3.33 understand that the incidence of mutations can be increased by exposure to ionising radiation (for example gamma rays, X-rays and ultraviolet rays) and some chemical mutagens (for example chemicals in tobacco). | Video: Biology Section 3 – Lesson 3 Genetics and Inheritance (part 1) – beginning to 08:20. Biology Section 3 – Lesson 4 – Genetics and Inheritance (part 2) – 12.05 to end.Powerpoint: Biology Section 3 Lesson 3 – slides 1 to 35. Biology Section 3 Lesson 4 – slides 51 to end.Textbook: Ch.16 - page 181 to 189Page 181 – The structure of DNAPage 182 – The DNA codePage 183 – DNA replicationPage 184 – The structure of chromosomesPage 188 – End of Chapter ChecklistChapter 16 – Chromosomes, Genes and DNA - Student checklist.docDVD Revision check list<http://biology-igcse.weebly.com/key-definitions.html><http://biology-igcse.weebly.com/-chromosomes-dna.html><http://biology-igcse.weebly.com/mutation-radiation.html> | TextbookPage 188 to 189 – Questions 1 to 4Textbook Answers (PDF)DVD Multiple choice testSection E16 - exam question - pdfSection E16 - exam question mark scheme – pdfTalking paper video – Section E16 – Chromosomes, genes and DNA |

Videos – www.igcsesciencecourses.com

Textbook Ref: Edexcel International GCSE Biology Student Book - Pearson (Bradfield and Potter)

DVD Video Clips – see resource DVD in textbook.