BIOLOGY - FOUNDATION

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| **Paper 1F** | **Paper 2 F** |
| **IN exam**  | **NOT in exam** | **IN exam** | **NOT in exam** |
| • Cell structure • Transport in cells • Animal tissues, organs and organ systems • Communicable diseases• PhotosynthesisReq prac 1: how a light microscope is used to observe plant cells. • Req prac 3: investigate the effect of a range of concentrations of salt solution on the mass of plant tissue (Potato osmosis). • Req prac 4: use qualitative reagents to test for a range of carbohydrates, lipids and proteins (Food tests). • Req prac 6: investigate the effect of light intensity on the rate of photosynthesis (Pondweed). | • Cell differentiation • Principles of organisation • Blood • Cancer • Protist diseases• Uses of glucose from photosynthesis• Aerobic and anaerobic respiration •Response to exercise • Metabolism | • The human nervous system • Hormonal control in humans • Plant hormones • Reproduction• The development of understanding of genetics and evolution• Req prac 7: carry out an investigation into human reaction times (Ruler drop). • Req prac 8: investigate the effect of light on the growth of newly germinated seedlings (Auxins). • Req prac 9: measure the population size of a common species in a habitat (quadrats and transects). | • The brain • The eye • Maintaining water and nitrogen balance in the body • Advantages and disadvantages of sexual and asexual reproduction • DNA structure • Sex determination • Variation and evolution• Theory of evolution • Speciation • The understanding of genetics • Resistant bacteria • Adaptations • How materials are cycled • Decomposition • Biodiversity • Land use • Deforestation • Global warming • Maintaining biodiversity • Trophic levels in an ecosystem • Food production |
| BIOLOGY - HIGHER |  |  |  |
| **Paper 1H** | **Paper 2 H** |
| **IN exam** | **NOT in exam** | **IN exam** | **NOT in exam** |
| • Cell structure •Transport in cells • Animal tissues, organs and organ systems • Plant tissues, organs and systems • Communicable diseases • Monoclonal antibodies• Req prac 1: use a light microscope to observe plant cells. • Req prac 3: investigate the effect of a range of concentrations of salt solution on the mass of plant tissue (potato osmosis). • Req prac 4: use qualitative reagents to test for a range of carbohydrates, lipids and proteins (Food tests). | • Blood • Cancer • Antibiotics and pain killers • Discovery and development of drugs • Response to exercise | • The human nervous system • Hormonal control in humans • Plant hormones • Reproduction • Organisation of an ecosystem • Req prac 8: investigate the effect of light on the growth of newly germinated seedlings (Auxins). • Req prac 9: measure the population size of a common species in a habitat (quadrats and transects). | • Structure and function• The brain • The eye • Hormones in human reproduction • Contraception • The use of hormones to treat infertility • Negative feedback • Use of plant hormones • Advantages and disadvantages of sexual and asexual reproduction • Sex determination • Variation and evolution • The development of understanding of genetics and evolution • Classification of living organisms • Adaptations • Impact of environmental change • Biodiversity • Deforestation • Maintaining biodiversity • Trophic levels • Pyramids of biomass • Sustainable fisheries• Role of biotechnology |