|  |
| --- |
| cid:6E6F43EA-C978-4DE4-8F03-193F09DC6E29@Home  IB Biology (HL/SL)  Exam Board: Intenrational Baccualuratte |

|  |
| --- |
| **About this subject** |
| Biologists investigate the living world at all levels using many different approaches and techniques.  At one end of the scale is the cell, its molecular construction and complex metabolic reactions. At the other end of the scale biologists investigate the interactions that make whole ecosystems function.  Many discoveries remain to be made and great progress is expected in the 21st century.  Through studying a science subject students should become aware of how scientists work and communicate with each other. While the scientific method may take on a wide variety of forms, the emphasis on a practical approach. In addition, through the overarching theme of the “Nature of Science” this knowledge and skills will be put into the context of way science and scientists work in the 21st Century and the ethical debates and limitations of creative scientific endeavor.  The sciences are taught practically. Students have opportunities to design investigations, collect data, develop manipulative skills, analyse results, collaborate with peers and evaluate and communicate their findings. The investigations may be laboratory based or they may make use of simulations and data bases. Students develop the skills to work independently on their own design, but also collegiately, including collaboration with schools in different regions, to mirror the way in which scientific research is conducted in the wider community. |
| **Course content** |
| 1. Cell biology 2. Molecular biology 3. Genetics 4. Ecology 5. Evolution and biodiversity 6. Human physiology 7. Nucleic acids 8. Metabolism, cell respiration and photosynthesis 9. Plant biology 10. Genetics and evolution 11. Animal physiology   Options:  A. Neurobiology and behavior  B. Biotechnology and bioinformatics  C. Ecology and conservation  D. Human physiology |
| **Assessment details** |
| * Internal assessment (individual investigation): 20% * External assessment: 80% |