

10th Grade Integrated Science

Knowledge Content

Students will cover the following topics:

- Appreciation of core aspects of Chemistry and Physics
- Understanding of Chemistry topics such as stoichiometry, kinetics and thermodynamics
- Understanding of Physics topics such as mechanics, heat, waves, radioactivity, electricity and magnetism
- Understanding of the use of SI units and scientific notation
- Appreciation of the environmental, social and ethical implications of science
- Development of laboratory skills with an appreciation of the benefits and limitations of scientific methodology.

Skills Content

In relation to the topics listed above, students will develop skills that enable them to:

- Develop skills of scientific investigation while planning laboratory work
- Develop skills of collecting, analysing, evaluating and synthesising data
- Develop manipulative skills (make measurements, handle information and model ideas) and personal skills related to practical laboratory work
- Develop collaborative skills and an understanding of interdisciplinary cooperation
- Develop information and communication technology skills in order to process and communicate information effectively
- Broaden understanding and use of scientific terminology and concepts
- Develop understanding of knowledge, methods and techniques which characterise science
- Develop skills of independent study and research.

Assessment

MYP Criterion based assessment of the following:

- Laboratory work and written reports
- Quizzes and short tests
- End of topic tests
- Tutorials relating to topics discussed in class
- Oral and written presentations based on individual and group research.

Examinations

Internal end of semester exams.

Resources

Text books include:

- *Biology, Visualising life*. Holt
- *Biology, The study of life*. Prentice Hall
- *Modern Chemistry*. Holt
- *Visions*. Austin, Braaten, Edwards, Miller and Miller. (To be determined)

Prerequisites

Successful completion of 9th Grade Integrated Science course.

Credits

One Credit.