

International Physical Science - Chemistry and Physics

9th Grade Intl. [2 periods per week]

Ms. Angela Campbell

Course Description

9 International Physical Science is a lab-based course of instruction designed to prepare students for the successful study of chemistry and/or physics in the Diploma Programme. The topics covered include:

States of Matter	Measurement and units
Separating substances	Forces and motion
Atomic structure and atomic theory	Forces and pressure
Periodic trends	Forces and energy
Bonding	

The textbooks used are the Third Edition of the Complete Chemistry for Cambridge IGCSE by RoseMarie Gallagher and Paul Ingram and the Third Edition of the Complete Physics for Cambridge IGCSE by Stephen Pople. These textbooks will continue to be used in grade 10.

Students are expected to conduct laboratory investigations that will help them build skills in

- Designing a controlled experiment
- Taking accurate measurements
- Accounting for sources of unavoidable error in their measurements
- Analyzing the data to find relationships and trends
- Drawing conclusions based on the data

In addition to these lab skills, students are expected to gain facility in choosing and applying the appropriate formula to analyze the relationship between variables.

Timeline

The first five chemistry topics are covered in units lasting 3-4 weeks during the first semester. The remaining topics are covered (as far as we can get in the time allowed) during the second semester. Each unit includes laboratory investigations that are designed to enhance the understanding of the topic as well as build lab skills.