ST. FRANCIS METHODIST SCHOOL
Possibilities to Realities

Curriculum Description for Singapore-Cambridge GCE 'O' Level

SCIENCE (Combined)

Any one of:
5152 SCIENCE (PHYSICS, CHEMISTRY)
5153 SCIENCE (PHYSICS, BIOLOGY)
5154 SCIENCE (CHEMISTRY, BIOLOGY)

Aims:
These are not listed in order of priority.
The aims are to:
1. provide, through well designed studies of experimental and practical science, a worthwhile educational experience for all students, whether or not they go on to study science beyond this level and, in particular, to enable them to acquire sufficient understanding and knowledge to
   1.1 become confident citizens in a technological world, able to take or develop an informed interest in matters of scientific import;
   1.2 recognise the usefulness, and limitations, of scientific method and to appreciate its applicability in other disciplines and in everyday life;
   1.3 be suitably prepared for studies beyond Ordinary Level in pure sciences, in applied sciences or in
   science-dependent vocational courses.
2. develop abilities and skills that
   2.1 are relevant to the study and practice of science;
   2.2 are useful in everyday life;
   2.3 encourage efficient and safe practice;
   2.4 encourage effective communication.
3. develop attitudes relevant to science such as accuracy and precision; objectivity; integrity; enquiry; initiative; inventiveness.
4. stimulate interest in and care for the environment.
5. promote an awareness that
   5.1 the study and practice of science are co-operative and cumulative activities, and are subject to
   social, economic, technological, ethical and cultural influences and limitations;
   5.2 the applications of science may be both beneficial and detrimental to the individual, the community and the environment;
   5.3 the use of information technology is important for communications, as an aid to experiments and
   as a tool for implementation of experimental and theoretical results.

Scheme of Assessment:

Candidates are required to enter for all set Papers (in the two Sciences they choose).

Science (Physics, Chemistry), Syllabus 5152 Papers 1*, 2, 3 and 5*
*Papers 1 and 5 will be based on the Physics and Chemistry sections of the syllabus.

Science (Physics, Biology), Syllabus 5153 Papers 1**, 2, 4 and 5**
**Papers 1 and 5 will be based on the Physics and Biology sections of the syllabus.

Science (Chemistry, Biology), Syllabus 5154 Papers 1***, 3, 4 and 5***
***Papers 1 and 5 will be based on the Chemistry and Biology sections of the syllabus.

Paper 2 will be based on the Physics section of the syllabus.
Paper 3 will be based on the Chemistry section of the syllabus.
Paper 4 will be based on the Biology section of the syllabus.

Paper	Type of Paper	Duration	Marks	Weighting
1	Multiple Choice (appropriate 2 sciences)*	1 h	40	20.0%
2	Structured and Free Response (Physics)	1 h 15 min	65	32.5%
3	Structured and Free Response (Chemistry)	1 h 15 min	65	32.5%
4	Structured and Free Response (Biology)	1 h 15 min	65	32.5%
5	Practical Test (appropriate 2 sciences)*	1 h 30 min	30	15.0%

See notes above (*)

Theory papers

Paper 1 (1 h, 40 marks), consisting of 40 compulsory multiple choice questions of the direct choice type providing approximately equal coverage of the *two* sections of the syllabus.

Paper 2 (1 h 15 min, 65 marks), consisting of *two* sections.
Section A will carry 45 marks and will contain a number of compulsory structured questions of variable mark value.
Section B will carry 20 marks and will contain *three* free response questions, each of 10 marks. Candidates are required to answer any *two* questions. The questions will be based on the Physics section of the syllabus.

Paper 3 (1 h 15 min, 65 marks), consisting of *two* sections.
This paper will have the same structure as Paper 2, but will be based on the Chemistry section of the syllabus.

Paper 4 (1 h 15 min, 65 marks), consisting of *two* sections.
This paper will have the same structure as Paper 2, but will be based on the Biology section of the syllabus.

Practical assessment

Paper 5 (1 h 30 min, 30 marks) consisting of *one* or *two* compulsory questions on each of the *two* Sciences. In one or both questions, candidates will be expected to suggest a modification or extension, which does not need to be executed.

Please refer to the SEAB website for more information regarding this course.
http://www.seab.gov.sg