Yan Oi Tong Tin Ka Ping Secondary School
Subject Plan of Chemistry (2020-2021)

I Aim

In order to meet the challenges posed by our rapid changing knowledge-based society, this subject, as a science subject, will provide a platform for developing scientific literacy and for building up essential scientific knowledge and skills for life-long learning in science and technology.

The overarching aim of our subject is to enable students to

(a) develop students' interest in the world of chemistry and maintain a sense of wonder and curiosity in chemistry;
(b) demonstrate knowledge and understanding in relation to facts, phenomena or applications in everyday life experience related to chemistry;
(c) foster students to be able to think scientifically, critically and creativity, and solve problems individually and collaboratively in chemistry-related contexts;
(d) raise students' awareness of the social, economic, environmental and technological implications of chemistry, and encourage them to show concern about the local environment and society;
(e) enhance students' readiness to become responsible citizens in terms of scientific literacy in this rapid changing world.

II Situational Analysis

1. Strengths

(a) Students show a strong interest in studying chemistry, and are generally attentive and well-disciplined in classes.
(b) Students are academically capable groups..
(c) Students are aware the importance of study and willing to strive for betterment.
(d) Laboratory technician is well experienced and supportive.
(e) School provides subject panels with a high degree of autonomy. Any changes and reforms within subject panels are usually highly supported.
(f) Teaching staffs are stable and willing to develop their professional knowledge by engaging themselves in various chemistry-related seminars organized by professional bodies.

2. Weaknesses

(a) Some students are used to rote learning, and show a strong dependence on teachers.
(b) Some students are weak in high-order thinking, and cannot apply their scientific knowledge in real life situations.
(c) Most students are lack in curiosity to pursuit the truth or the explanation.
(d) Some elite students are lack in motivation to excel for excellence in their academic performance.
(e) Science teachers are usually more heavily loaded than other subjects.

3. Opportunities

(a) Rich opportunities of science training and competitions are available to widen the exposure of students.
(b) The implementation of STEM provides more resources in science teaching and learning.
(c) Teaching resources are readily available in various channels to facilitate better teaching and learning.
(d) There will be one more teaching group in F.4 in the coming academic year which will encourage more students to choose Chemistry as one of their elective subjects.
(d) The 3-3-4 Educational Reform enables teachers to formulate better teaching strategies for the new syllabus, and re-allocate resources to improve students' learning outcomes.
(e) NSS implementation provides further emphasis on the vertical alignment with junior science curriculum.
(f) The increase in the number of teaching periods among elective subjects alleviates the tight teaching schedule.

4. Threats

(a) Class suspension due to the outbreak of covid-19. Online will be another mode of teaching.
(b) Various changes in educational policies and the heavy school workload deplete teachers' time on subject preparation and dialogue time with students.
(c) The 4-5-5 class framework allowing all F.4 students taking 3 elective subjects causes a greater learning diversity.

III Major Concerns

1. To optimize the NSS chemistry curriculum and fine-tune the F.3 curriculum content

2. To cater for students' diversity

3. To improve online teaching and learning proficiency

IV Strategies

Major Concern	Strategy	Success Criteria	Method of Evaluation
1. To optimize the NSS chemistry curriculum and fine turn the F.3 school based curriculum.	♦ Reorganize the NSS curriculum so as to suit our students' learning interest and abilities. ♦ Attend professional development courses and serve as DSE marker to update our professional knowledge, and assessment skills required for the curriculum ♦ Make the best use of the collaboration lesson planning period. ♦ A school based F.3 curriculum is designed to act as a bridge for junior science and S.4 chemistry. Real life situations and experimental approach are incorporated so as to increase students' learning interest. ♦ Conduct a survey on teaching and learning in F.3 so as to have a clearer picture on students' learning habit and on the curriculum.	♦ Teachers have applied appropriate teaching and learning activities to implement assessment for learning in lessons. ♦ Students are well prepared for each lesson. ♦ Refinement of teaching notes and other teaching aids. ♦ Successful teaching experience can be shared among teachers. ♦ Students could hand in their assignments in a reasonable quality. ♦ Students can meet the required standard in SBA ♦ F.3 students are enthusiastic in learning chemistry and are eager to learn chemistry in their further studies.	♦ Feedback from students ♦ Students' general performance in daily lessons and in summative assessment such as school examinations ♦ Evaluation from teachers ♦ Class Observation ♦ Attendance checked by EDB record ♦ Number of students choose chemistry as one of their elective subjects in NSS1

Major Concern	Strategy	Success Criteria	Method of Evaluation
2. To cater for students' diversity	♦ The two groups of chemistry students in F4 Broad ONE will be allocated according to their academic achievement so as to facilitate teaching and learning. ♦ Incorporate different modes of teaching approach and learning activities into the curriculum such as using the P-E-O-E (Predict, Experiment, Observe, Explanation), "Real-Life Application first' etc. ♦ Encourage outstanding students to actively participate in inter-school competitions, training workshops and scientific talks to broaden their horizon ♦ Launch remedial classes for weaker students to consolidate their knowledge and to maintain their confidence in learning. ♦ Make the best use of different e-learning channels. ♦ Exercises with different levels are	♦ Students take an initiative in participating in the teaching and learning activities. ♦ Students are more motivated to learn chemistry. ♦ Students can accomplish those practical tasks in the SBA well. ♦ Less able students can meet the required standard. They are willing to learn and eager to improve. ♦ Those elite students can establish a modeling effect to the class and they are confident to strive for a higher grade in the HKDSE. ♦ Students are able to make good use of those online resources to develop a good learning habit.	♦ The drop-out rate when they are promoted to F.5 in 2020. ♦ Students' performance in classes, practical tasks and assessments. ♦ Evaluation from teachers through daily observation ♦ Class observation ♦ Feedback from students ♦ HKDSE result

	provided to suit the needs of students.	♦ Students are more enthusiastic in learning Chemistry.	

Major Concern	Strategy	Success Criteria	Method of Evaluation
3 To improve online teaching and learning proficiency	♦ The curriculum and teaching notes will be revised. ♦ Different e-learning channels are used to facilitate the teaching and learning. ♦ Students are required to take a more active role. ♦ Appropriate assignments and uniform tests are provided and carried out more frequently. ♦ Appropriate talking / dialogue with individual student / small group of students will be conducted.	♦ Students are well prepared for each of the online lesson. ♦ The online lesson is interactive. Students can take an initiative to give response. ♦ The teaching progress can be maintained.	♦ Students' performance in the online lesson. ♦ Students' feedback ♦ Test / Examination results

V Allocation of Manpower in Panel

Overall coordinator: Mr. Suen Kwei Lung

Form coordinators: Mr Suen Kwei Lung F.3, F.5 and F.6

Mr..Lee Ka Wai F.4