

# **Accelerated Class for Science (ACS)**

## **Introduction**

The school-based Accelerated Class for Science (ACS) is a differentiated programme to challenge and develop students with special Science talents and potential for the international Science arena. The ACS is a two-year programme for Years 3 and 4 students in the Integrated Programme (IP) stream. It has nurtured many students who have represented the school and country in Science competitions and Biology, Chemistry and Physics Olympiads.

Students in the Accelerated Class for Science take all three Sciences. The curriculum will be challenging and enriching and cover fundamental IP topics at a faster pace. To facilitate better understanding, similar topics and concepts at advanced level e.g. Higher Level (HL) at IBDP and/or GCE A-Level will be introduced to students with sufficient scaffolding. Under the guidance of experienced teachers, students will be trained to handle open-ended scenarios, higher-order thinking questions and relevant applications.

## **Objectives**

The Accelerated Class for Science serves the following purposes:

- a. To provide differentiated learning programme for the students with special Science talents.
- b. To ensure that talented students are nurtured from a younger age.
- c. To groom the selected students and prepare them for challenges at the international Science arena.

The objectives of the programme will be realised through 3 main approaches. Firstly, the students will be brought through an accelerated curriculum to ensure that they are equipped with sufficient concepts to take on challenges of higher-order problems in science. Secondly, the students will be guided to perform intense Science research in and out of school (upon selection by the external research institutions). Students will be required to apply concepts learned in class to complete rigorous Science coursework projects focusing on the development of research skills instead of performing isolated experiments. Thirdly, additional guidance, training sessions and resources will be provided to prepare interested students for national and international Science competitions.

## **Selection Criteria**

The success of the programme hinges on the quality of students selected. As such, the students will be selected via a series of assessments. The rationale for the intense selection process and high selection standards is to ensure that students who are selected for the programme are truly suited for the programme. All students must satisfy the following criteria before they are considered for the Accelerated Class for Science.

- a. Display excellent foundation in Science via exceptional performance in **Year 2 Final Examination**
- b. Display talents in Science via outstanding performance in **Selection Test\*** (conducted after Year 2 Final Examination)

\*For SEC students to be considered for the Accelerated Class for Science, they must satisfy a separate set of criteria for transfer to Year 3 IP before they are considered for the Selection Test.

Only successful IP applicants from Y2 SEC who satisfy the following subject-based criteria are eligible to take the ACS Selection Test.

Grade Criteria	Subject	Marks
Y2 SEC Final Exam (not overall)	Physical Science	80% or higher
	Life Science	80% or higher
	Mathematics	80% or higher
	English Language	65% or higher

## **Subjects Offered and Assessment**

Students in the ACS will be offered the following IP subjects:

1. Language Arts (LA)
2. Mother-Tongue Language or Higher Mother-Tongue Language
3. **Biology (IP and Accelerated)**
4. **Chemistry (IP and Accelerated)**
5. **Physics (IP and Accelerated)**
6. Core Mathematics
7. Advanced Mathematics
8. International Studies (IS)

Assessment – In Year 3-4, the Accelerated Class for Science students will sit for the same examination papers as the mainstream IP students. In addition, there is a 1.5-hour combined paper comprising all 3 Accelerated Sciences.

Performance in the Accelerated Sciences is individually reflected in the progress report as 'Distinction' or 'Merit'.

## **Programme Highlights**

1. Enhanced Science, Technology, Engineering, Mathematics (STEM) – focused Curriculum
2. Competitions Opportunities
3. Research Opportunities
4. Enrichment Activities and Learning Journeys