

IBMYP Science

For Years 7 - 9

Course Description

The IBMYP Science course emphasizes the development of scientific understanding and inquiry skills through hands-on experiments, investigations, and critical thinking. The course encourages students to explore the natural world, develop scientific literacy, and apply scientific knowledge to real-life situations. Students will engage with various scientific disciplines, including biology, chemistry, physics, and earth science, fostering curiosity and a deeper appreciation for the scientific method.



Course Objectives



Enhance Scientific Knowledge:

Develop understanding of key scientific concepts and principles across various disciplines.



Promote Inquiry-Based Learning:

Encourage students to ask questions, design experiments, and conduct investigations to find answers.



Foster Critical Thinking:

Equip students with the ability to analyze data, evaluate evidence, and draw conclusions based on scientific reasoning.

Syllabus Structure

The syllabus is structured into thematic units that cover core scientific concepts, including:

1

Unit 1: Life Science

Study of cells, ecosystems, and the diversity of life.

2

Unit 2: Physical Science

Exploration of matter, energy, forces, and motion.

3

Unit 3: Earth and Space Science

Examination of earth's systems, atmosphere, and the solar system.

4

Unit 4: Scientific Investigation and Experimentation

Focus on the scientific method, data collection, and analysis.

Assessment Criteria

The assessment of students in the IBMYP Science course is based on the following criteria:

Criterion A: Knowing and Understanding

Ability to demonstrate knowledge of scientific concepts, facts, and terminology.

Criterion B: Inquiring and Designing

Proficiency in formulating scientific questions, planning investigations, and identifying variables.

Criterion C: Collecting and Processing

Skill in gathering, organizing, and analyzing data to interpret results.

Criterion D: Reflecting on the Impacts of Science

Evaluation of scientific developments and their ethical, social, and environmental implications.

Learning Approaches

The IBMYP emphasizes essential skills that foster student learning. The main categories of ATL (approaches to learning) skills include:



Communication Skills

Effective sharing of scientific ideas and results through various formats.



Social Skills

Collaboration in group projects and discussions, fostering teamwork.



Self-management Skills

Development of organizational skills and responsible conduct of experiments.



Research Skills

Techniques for gathering and evaluating scientific information and evidence.



Thinking Skills

Application of critical and creative thinking to propose solutions and make decisions based on scientific data.