# IBS Level Environmental Systems & Societies

Environmental systems and societies (ESS) is a dynamic interdisciplinary subject that takes 21st-century challenges and socio-environmental real-world issues and looks at them through the lens of human societies and the interrelationships of the natural world: biosphere, atmosphere, hydrosphere and lithosphere. ESS is a dynamic course firmly grounded in the real world, and focuses on the interactions between individuals, societies and biological processes in both time and space. The interdisciplinary nature of the DP course requires a broad skill set from students, including the ability to perform research and investigations, participation in philosophical discussion and problem-solving. The course requires a systems approach to environmental understanding and promotes holistic thinking about environmental issues. Our curriculum is designed to encourage curiosity and passion about the fragility of our environment and the collective responsibility of individuals and societies. Context is essential in ESS as students study and make sense of the world around them and their place within it.

Environment is no-one's property to destroy; it's everyone's responsibility to protect – Mohith Agadi

**What will students learn?**

ESS is firmly grounded in both a scientific exploration of environmental systems in their structure and function, and in the exploration of cultural, economic, ethical, political and social interactions of societies with the environment. As a result of studying this course, students will become equipped with the ability to recognize and evaluate the impact of our complex system of societies on the natural world.

**Topic 1: Foundations**

- Perspectives
- Systems
- Sustainability

**Topic 2: Ecology**
**Topic 3: Biodiversity and conservation**
**Topic 4: Water**
**Topic 5: Land**
**Topic 6: Atmosphere and climate change**
**Topic 7: Natural resources**
**Topic 8: Human populations and urban systems**

In Lower Sixth students study Foundations, Ecology, Land and Biodiversity
In the Upper Sixth students study Water, Atmosphere, Natural Resources and Human Populations

## How is it assessed?

Students are assessed through examinations and an internal assessment.

Paper 1: Students will be provided with a range of data in a variety of forms relating to a specific, previously unseen case study. Questions will be based on the analysis and evaluation of the data in the case study: 25% of total. Exam 1 hour

Paper 2: Short response & Essay question: 50% of total. Exam 2 hours

Internal Assessment

The course allows for 30 hours of practical work, 10 of which are allocated to the Individual Investigation. This Internal assessment is worth 25% of the IB Standard level.

## WHY STUDY THIS SUBJECT?

ESS is a course which promotes holistic thinking about environmental issues and their solutions. It provides students with a fundamental understanding of environmental studies and experience of the associated concepts with a great emphasis on skills development.
The ESS course aims to foster an international perspective, awareness of local and global environmental concerns and an understanding of scientific methods.
It is an interdisciplinary course that allows students to acquire skills that underpin socio economic and scientific methodologies. The ESS DP aims to enable students to:

- ✓ Acquire the knowledge and understanding of the environment systems and issues.
- ✓ Apply the knowledge, methodologies and skills to analyse environmental systems and issues at a variety of scales.
- ✓ Develop critical awareness that environmental problems are caused and solved by decision made by individuals and societies
- ✓ Create innovative solutions to environmental issues by engaging actively in local and global contexts
- ✓ Develop problem-solving approach of the experimental sciences, the observational reasoning
- ✓ Enhance critical, creative thinking and the development of argument characteristics of individuals and societies subjects




**Useful websites/Future Career Opportunities:**
AMAZING WORLD OF SCIENCE WITH MR. GREEN - Home (mrgscience.com)
**Careers:**
Chief Sustainability Officer, Financial Investment, Conservation Biologist, Renewable Energy Advisor, Waste Management, Circular Economist, Climate Justice Advisor.

## Matriculation Requirements

In addition to the Sixth Form matriculation requirements, you will need a grade 5 or above in GCSE Biology or 55 in GCSE Combined Science **and** grade 5 in Mathematics.

Our planet's alarm is going off and it's time to wake up and take action – Leonardo DiCaprio