Course Start

Course Start is independent learning you need to complete as a fundamental part of your introduction to the course. It should take you approximately 5 hours to complete.

Course Name	IB Environmental Systems and Societies
How this **Course Start** fits into the first term of the course	The course deals with naturally occurring systems that determine and influence the environment and that which supports all life on Earth.
How will my **Course Start** learning be used in lessons?	The course examines some of the theories and processes that influence land, water and air, off of which are impacted by human activity and the manner in which human societies interact with the environment.
Course Start learning objectives	The aims of the ESS course are to enable you to: 1. acquire the knowledge and understandings of environmental systems at a variety of scales 2. apply the knowledge, methodologies and skills to analyse environmental systems and issues at a variety of scales. 3. appreciate the dynamic interconnectedness between environmental systems and societies. 4. value the combination of personal, local and global perspectives in making informed decisions and taking responsible actions on environmental issues be critically aware that resources are finite, and that these could be inequitably distributed and exploited, and that management of these inequities is the key to sustainability. 5. develop awareness of the diversity of environmental value systems 6. develop critical awareness that environmental problems are caused and solved by decisions made by individuals and societies that are based on different areas of knowledge.

	7. engage with the controversies that surround a variety of environmental issues 8. create innovative solutions to environmental issues by engaging actively in local and global contexts.
Study Skills	• Research skills - using suggested sources and identifying key information. • Independent Study – approx. 1-2 hours each week. • Communication skills – written and verbal putting your ideas and findings into effective writing. • Presentation and Visual Communication Skills - use of graphs and images to present your findings. • Data Analysis and Scientific (empirical) Skills to interpret and evaluate information.

Expectations for:

Our specification is: IB Diploma Environmental Systems and Societies

What this course involves
Completing Planned Study (independent learning) of approx.. 1-2 hours.
Writing tasks involving a range of practice exam questions (e.g. short answers , data-based questions and essays)
Application of numerical skills including analysing graphs and data, plus using statistical analysis (eg. t-test, correlation coefficient and chi-squared test)
Completing a piece of coursework (25% of the final grade) which will entail forming a hypothesis, collecting and analysing data, writing conclusions.
Engaging in discussions and presentations based on the themes studied.
Studying a diverse range of topics and themes: ecosystems, biodiversity and conservation to food security, climate change, energy production and the impact of human populations and societies.
Developing independent learning skills (e.g. time management, preparing for each week's lessons, completing learning tasks outside lessons)
Participating in practical activities including fieldwork.

Environmental Systems and Societies
Flying Start
*To be completed for your **first day** of lessons*
*Write your answers in the spaces provided*

1. Complete the table below listing at least TWO of the most common pollutants in each category: **[6 marks]**

Land	Water	Air

2. There is a global ban on the trade of ivory obtained from elephant tusks. However, poachers in some African countries kill elephants and trade ivory illegally.

Using Figure 1, calculate the annual rate of population increase for elephants in Zimbabwe from 1985 to 2005.

[1 mark]
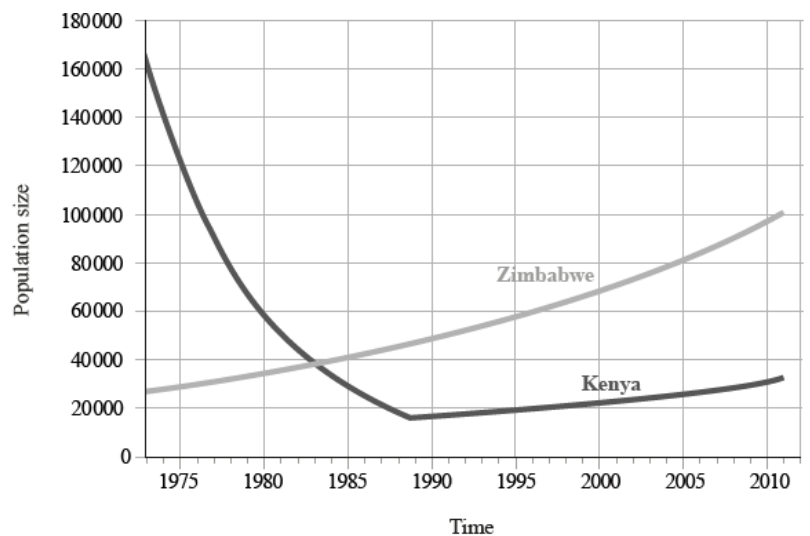
Figure 1 Elephant Population: Kenya compared to Zimbabwe, 1973 – 2011

3. **Figure 2**: Species within the Coral Triangle

	Number within Coral Triangle	Global number
Coral species	605	798
Coral reef fishes	2228	6000
Marine turtles	6	7
Whale, dolphin and porpoise species	29	92

With reference to the data in Figure 2, calculate the percentage of the world's coral species found in the Coral Triangle.

[1 mark]

4. Distinguish between the terms renewable and sustainable. **[4 marks]**

5. Construct a labelled flow diagram to show the processes that link soil with the following three storages:

- The atmosphere
- The lithosphere
- Living organisms

Annotate each labelled flow with an example of the matter involved. **[6 marks]**

Use a separate sheet of paper for your diagram.

6. Evaluate ways in which different agricultural techniques may affect the sustainability of soil as a resource. **[8 marks]**

Total = 26 marks