Environmental Systems and Societies

*Ecosystem Productivity Internal Assessment*

**Learning Goal:** the relationships between variables in an ecosystem and the productivity of an ecosystem will become apparent by designing an investigation, executing the experiment, organizing the data and analyzing the data.

**Success Criteria:** The investigation you design and implement will

**Prompt:** Design and implement an experiment which investigates the effects of changing an abiotic or biotic factor on ecosystem productivity.

**Need to know:**

* This investigation will be worth 150 points (50 points per section).

There are four Assessment criteria that are used to assess the work of students.

* Planning—Pl
* Data collection and processing—DCP
* Discussion, evaluation and conclusion—DEC
* Personal skills—PS

The first three criteria—planning, data collection and processing, and discussion, evaluation and conclusion—are each assed at least twice.

**Personal skills** is assessed summatively, once only, at the end of the course. It should not be the average achieved over the whole practical scheme of work, but should reflect any sustained improvement in performance.

Each of the assessment criteria can be separated into three aspects as shown in the following sections. Descriptions are provided to indicate what is expected in order to meet the requirements of a given aspect **completely** (C) and **partially** (P). A description is also given for circumstances in which the requirements are not satisfied, **not at all** (N).

A “complete” is awarded 2 marks, a “partial” 1 mark and a “not at all” 0 marks.

The maximum mark for each criterion is 6 (representing three “completes”).

* Pl X 2 = 12
* DCP X 2 = 12
* DEC X 2 = 12
* PS X1 = 6

This makes a total mark out of 42.

The marks for each of the criteria are added together to determine the final mark out of 42 for the Internal Assessment component. This is then scaled by the IB to give a total out of 20% for the course.

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| **Planning:** | **Aspects:** |
| Defines the problem and selects variables. |
| Controls variables. |
| Develops a method for collection of data |

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| **Data Collection and Processing:** | **Aspects:** |
| Recording raw data |
| Processing raw data |
| Presenting processed data |

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| **Discussion, Evaluation and Conclusion:** | **Aspects:** |
| Discussing and reviewing |
| Evaluating procedures/suggested improvements |
| Concluding |

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| **Personal Skills****(recorded for summative assessment):** | **Aspects:** |
| Carrying out techniques |
| Working in a team |
| Working safely and ethically |

**Due date: Friday, February 28th, 2014**