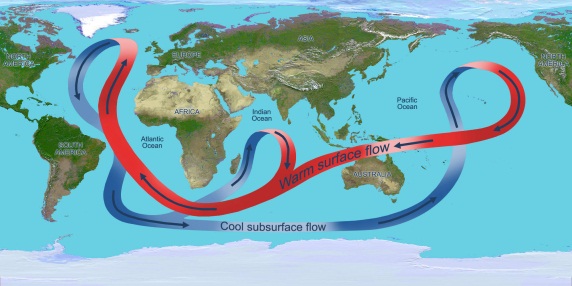
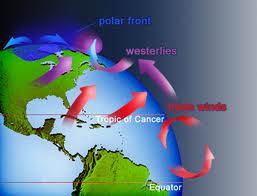
**Level 3**  Earth & Marine Science ****** 

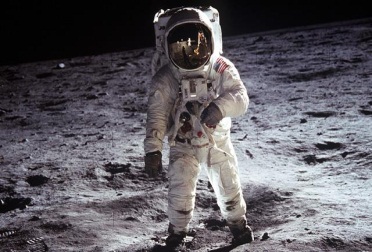
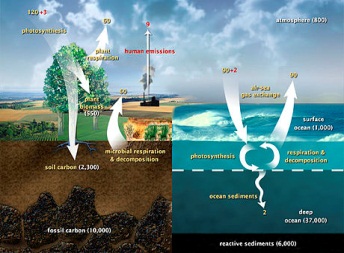
You will be **assessed** using a range of internal and external Level 3 standards from:

**Earth & Space Science & Education for Sustainability & Biology**

***Topics & Assessment 2016*** *(subject to change if we feel so inclined… and we probably will)*

|  |  |  |
| --- | --- | --- |
| **Standard** | **Credits** | **Topic** |
| ESS 91410 | 4 Int | Practical Investigation: Tasman Bay oceanography / or? |
| ESS 91411 | 4 Int | A socio-scientific issue: Cobb quarry / Abel Tasman NP / Waimea plains Dairy farming / or? |
| ESS 91413 | 4 Ext | Understand processes in the Ocean system |
| ESS 91414 | 4 Ext | Understand processes in the Atmosphere system |
| In addition we will also set aside 4-5 weeks for work on a topic of individual choice, selected from the following: | | |
| E4S 90829 | 4 Int | Investigate Interrelationship between Humans and the Environment (ATNP restoration) |
| ESS 91415 | 4 Int | Investigation of an aspect of Astronomy…. wide open, you choose |
| E4S 90828 | 6 Int | Evaluate a Personal Action, eg drain fish / Tahuna beach cleanup / Oyster Island |
| Bio 91601 | 4 Int | Practical Biology Investigation: any ideas? |
| Bio 91602 | 4 Int | Investigate a biological issue, eg fisheries management / land use impacts / or? |

Total 20 - 22

**Some idea of what, when and how long**

***Term 1*  
Topic 1** [91410] **(5 wk)**  
Tasman Bay oceanography: literature research/ secchi investigation / plankton & sediment

**Topic 2** [91411] **(5 wk)**  
Humans and sustainability: Cobb Quarry  
&/or  
Abel Tasman NP: history / impacts / restrictions   
&/or  
Waimea plains dairying: impacts / measuring? / or snapper over the years

***Term 2*  
Topic 1** [91413] **(5 wk)**  
Ocean structure (the external stuff)

**Topic 2** [lots to choose from] **(5 wk)**  
topic of their choice  
examples:   
comparing some conservation initiatives / a personal action / astronomy / geology

***Term 3*  
Topic 1** [91414] **(5 wk)**  
Atmosphere structure (the external stuff)

or

**Topic 2** [90829] **(5wk)**  
Human-environment interaction (something from above not done earlier?)

School Exams  **(1 wk)**

***Term 4***

**Topic 2** cont.[90829]  **(2 wk)** Complete Human-environment interaction

Revision for exams