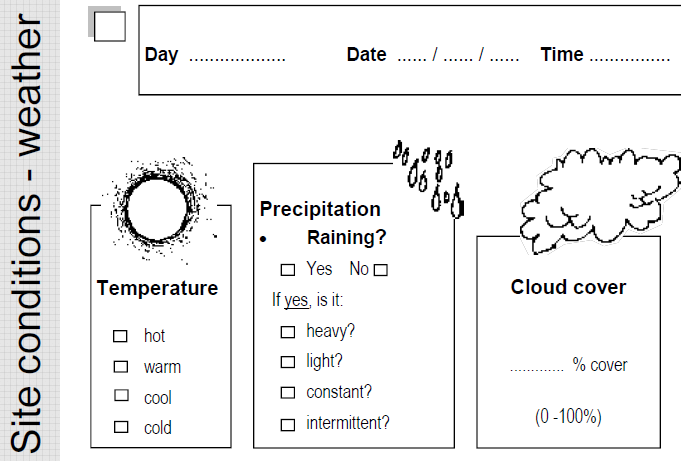
**YEAR 11 BIOLOGY**

Aim: To visit an ecosystem and observe adaptations of organisms

Possible places to visit: Melbourne Zoo, Melbourne Aquarium, Werribee Zoo, Merri Creek, Moonee Ponds Creek and Queens Park



**Why do we need to take note of SITE CONDITIONS before we begin our observation?**

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Choose 5 organisms and examine their habitat and role in nature **(NICHE)**

Examples below depending on where you are going

 [](http://www.bing.com/images/search?q=giraffe&id=95F1B6DD73BA135ACE5576A22CD8E619F4D43E1B&FORM=IQFRBA#view=detail&id=95F1B6DD73BA135ACE5576A22CD8E619F4D43E1B&selectedIndex=0)

**Example: Melbourne Zoo**

1. Design a table (use below as a guide)
2. Determine their binomial classification and write underneath each their **BINOMIAL** name
3. Take a picture and insert into table
4. Complete table AND post to **Drop Box.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| BINOMIAL CLASSIFICATION | COMMON WOMBAT | AUSTRALIAN FUR SEALS | PLATYPUS | ORANGUTAN | LORD HOWE  ISLAND STICK INSECT |
| PICTURE |  |  |  |  |  |
| INVERTEBRATE/VETERBRATE |  |  |  |  |  |
| WHAT KINGDOM AND CLASS DO THEY BELONG TO? |  |  |  |  |  |
| COUNTRY OF ORIGIN |  |  |  |  |  |
| DESCRIPTION OF HABITAT  (ABIOTIC AND BIOTIC FEATURES) |  |  |  |  |  |
| WHAT ARE THE **LIMITING FACTORS** IN THEIR ENVIRONMENT? |  |  |  |  |  |
| DIET  (HERBIVORE/CARNIVORE/ (OMNIVORE) |  |  |  |  |  |
| STRUCTURAL ADAPTATION  **List any physical adaptations the animal has and how it helps them survive in their environment e.g. webbed feet in platypus** |  |  |  |  |  |
| BEHAVIORAL ADAPTATION  **List any behavioral adaptations the animal has and how it helps them survive in their environment e.g. aggressive behavior in wattle birds** |  |  |  |  |  |
| REPRODUCTIVE ADAPTATION  **List any reproductive adaptations the animal has and how it helps them survive in their environment e.g. males of some butterflies wait near the pupa and copulate with the female as soon as she emerges.** |  |  |  |  |  |

**The questions below can be answered through research or observation.**

In Semester One we discussed the importance of Surface Area to Volume ratio in terms of assisting cells to transport substances efficiently. Choose one organism from your list and discuss its SA: V and how this structural adaptation assists its survival in its native habitat.

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Theoretically, a large animal has a small surface to volume ratio. How does the elephant manage to increase its surface area to volume ratio?

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Why does living in a cold habitat particularly challenge small animals such as Little Penguins?

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Outline a BEHAVIOURAL ADAPTATION that helps one of your organisms to maintain its body temperature

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