

Designing & Building Habitat of the Berkeley Brush

Year 8S Science Project Terms 1 - 3, 2014

1. Design Brief:

We need to increase the local biodiversity in the local primary school Permaculture gardens. The Berkeley brush is the local plant community of the Berkeley hills, home to Warrawong HS.

Working with the patterns of nature is central to Permaculture design and practice. We are creating a food web, which includes all living creatures that contribute to the energy cycles in a sustainable environment. The local biodiversity plays an important role in growing food, for example: fan tailed birds predate on herbivorous insects, blue tongue lizards eat snails, bees pollinate fruit trees etc.

Choose a living creature you want to attract or increase their population from the Berkeley brush and return develop the biodiversity in the local primary school Permaculture garden. Follow these steps to complete your project.

2. Research for powerpoint:

- What are my common and Latin names?
- What do I look like? Include 3 images
- What are my numbers in the permaculture garden?
- What type of habitat do I need?
- What do I eat and drink?
- How do my adaptations help me survive?
- Why is it good to have this animal in the Permaculture garden? What role does it play in helping plants grow?
- Find indigenous art/stories on your chosen animal

3. Design for habitat box or habitat:

- Draw a plan for the design
- For a habitat box draw 2 perspectives, net and 3D. Include all dimensions.
- List all the materials required for example: (plywood, screws, glue, branches etc.)
- How can these be sourced?
- What tools will you need to use?

- What native plants do you need and how many will you use?
- Locate the habitat in the Permaculture garden & provide reasons for your choice.
- Present your design on computer with powerpoint and/or on paper to explain your concept.

4. Assembling habitats:

- List all the materials required for example: (plywood, screws, glue, branches etc.)
- How can these be sourced?
- What tools will you need to use?
- What native plants do you need and how many will you use?
- Collect and use recycled materials and/or found natural objects like bush rock and logs when possible
- Locate the habitat in the Permaculture garden & provide reasons for your choice.
- Present your design on computer with powerpoint and/or on paper to explain your concept.

5. Building:

The habitat will be constructed in the shed next to the outdoor kitchen in the Permaculture garden. You will have to bring an old shirt to work in as you will get dirty and may need to use power & hand tools and other construction equipment.

- Use recycled materials and/or found natural objects like bush rock and logs when possible.

6. Installing and presenting your habitat:

You will need to install your habitat within the Permaculture garden at the local primary schools or Warrawong High (prior to making your boxes). What equipment you require to install it? (For example a ladder if it needs to be placed in a tree.) You will be assessed on each part of the process. You will have to explain your habitat in the field to staff and other students and be expected to answer questions about your design decisions.

Have fun!