

D&T Year 2-Iconic Australian Landmarks

In this unit of work children will look at a range of famous buildings in Australia, finding out how they were built and evaluate them. In a group, they will choose one of the buildings to replicate and discuss how the structure could be made – choosing suitable construction materials. They will plan, build and evaluate their building throughout the construction process.

In this unit children will:

- Look at a range of iconic Australian buildings, discuss how they were made and evaluate them.
- Generate ideas on how to replicate a building by thinking about how the original one would have been constructed and create their own design criteria.
- In a group, create a plan of their building labelling the parts and the materials they have chosen to use.
- Make a mock-up of their building explaining why they have chosen the specific materials and tools for the job.
- Build their structure exploring how they can make it stronger and stable; selecting the most appropriate tools and materials.
- Evaluate their end structure discussing what went well and what they may change.

Prior Learning

EYFS: Explain what they are making and which material they are using. Describing the models which they have built and discussing their work as it progresses. Start to build structures, joining components together. Talk about their designs noting the good and bad points and if they had to make any changes during the making process. Discuss how closely their finished product met the design criteria.

Y1: Begin to understand the development of existing products. Develop their ideas through talk and simple drawings. Make mock ups of their ideas. Begin to build structures, exploring how they can make them stiffer, stronger and stable. Select appropriate resources and tools for the job.

Cross Curricular Links

Geography-Australia; **History**- Amy Johnson's flight to Australia; **Art**-Aboriginal Inspired Art

Key Questions

- Why is it important to draw a plan before constructing your model?
- Can you change your design as you are making your model?
- How can I make a structure stronger?
- Which parts of Sydney Harbour Bridge met in the middle when it was being built?

Key Vocabulary

- **Freestanding structure**-A structure that stands on its own foundation or base without attachment to anything else.
- **Butress**-A structure added to a wall, tower or framework to make it more stable and/or reinforce it.
- **Construct**- To build.
- **Stability** – In relation to a freestanding structure, the extent to which it is likely to fall over if a force is applied.
- **Structure**- A building or other object constructed from several parts.
- **Mock-Up**- 3D representation of a product.
- **Base**-What the structure stands on.
- **Design**-What you intend to make e.g. in the form of a plan.
- **Make**-Constructing your product.
- **Evaluate**-Deciding what went well or needs to be improved.
- **Purpose**- What is it intended for

Key Knowledge

- Plans help generate, develop, model and communicate your ideas before you build your structure. It is important to evaluate your product as you go along and make any improvements so that it meets the design criteria.
- You can make structures stronger by making the base wider, making the base heavier or adding buttresses
- Sydney Harbour Bridge had steel arches assembled from each bank which met in the middle.