



Design and Make

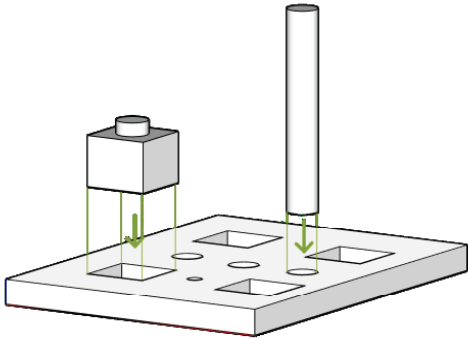
Species Hotel



Species Hotel

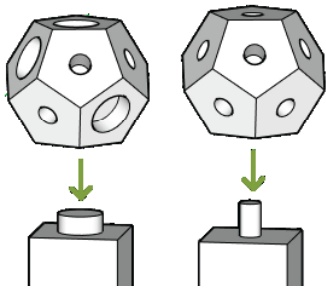
How it works:

The Species Hotel kit includes four different components for use, including supplementary natural components collected by students.



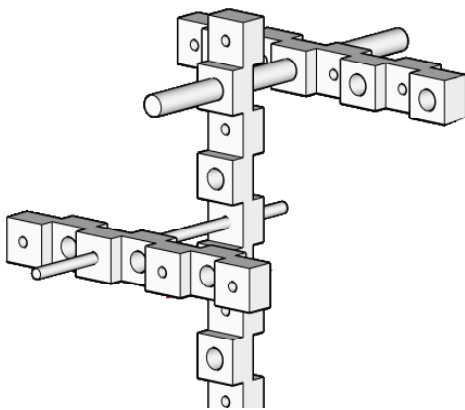
Base Board:

The base boards have been incorporated into the lids of all kits of the resource package. The square holes align with both the 3D printed connectors and the interlocking sticks, and holes over the board correspond with both 6mm and 12.7mm lengths of dowel.



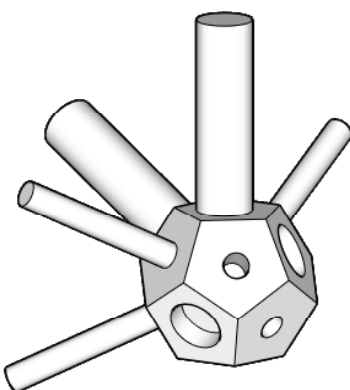
Connectors:

Each Species Hotel kit contains an assortment of connectors and clips to allow open ended construction with the pieces provided. Hexagon shaped parts connect with both sizes of dowel, as well as into the base board as a starting point for creative construction.



Interlocking Sticks:

The Interlocking sticks can be inserted straight into the base board, as well as stacking in a post and beam construction manner, pieces of varying orientation can be fixed together with both sizes of dowel through the corresponding holes.



Dowel:

Two different diameters of dowel are provided for maximum flexibility. Both are compatible with the pentagon joiners and the interlocking sticks. The 12.7mm dowel also has holes that correspond with the 6mm dowel to enable the user to add on and continue building.

Curriculum Links



Design and Make

Year 3/4

DESIGN AND TECHNOLOGY

- ACTDEK013 Investigate the suitability of materials, systems, components, tools and equipment for a range of purposes
- ACTDEP018 Plan a sequence of production steps when making design solutions, both individually and collaboratively

SCIENCE

- ACSSU074 Natural and processed materials have a range of physical properties that can influence their use
- ACSSU073 Living things depend on each other and the environment to survive

HUMANITIES AND SOCIAL SCIENCE (HASS)

- ACHASSK088 The importance of environments and natural vegetation, to animals and people

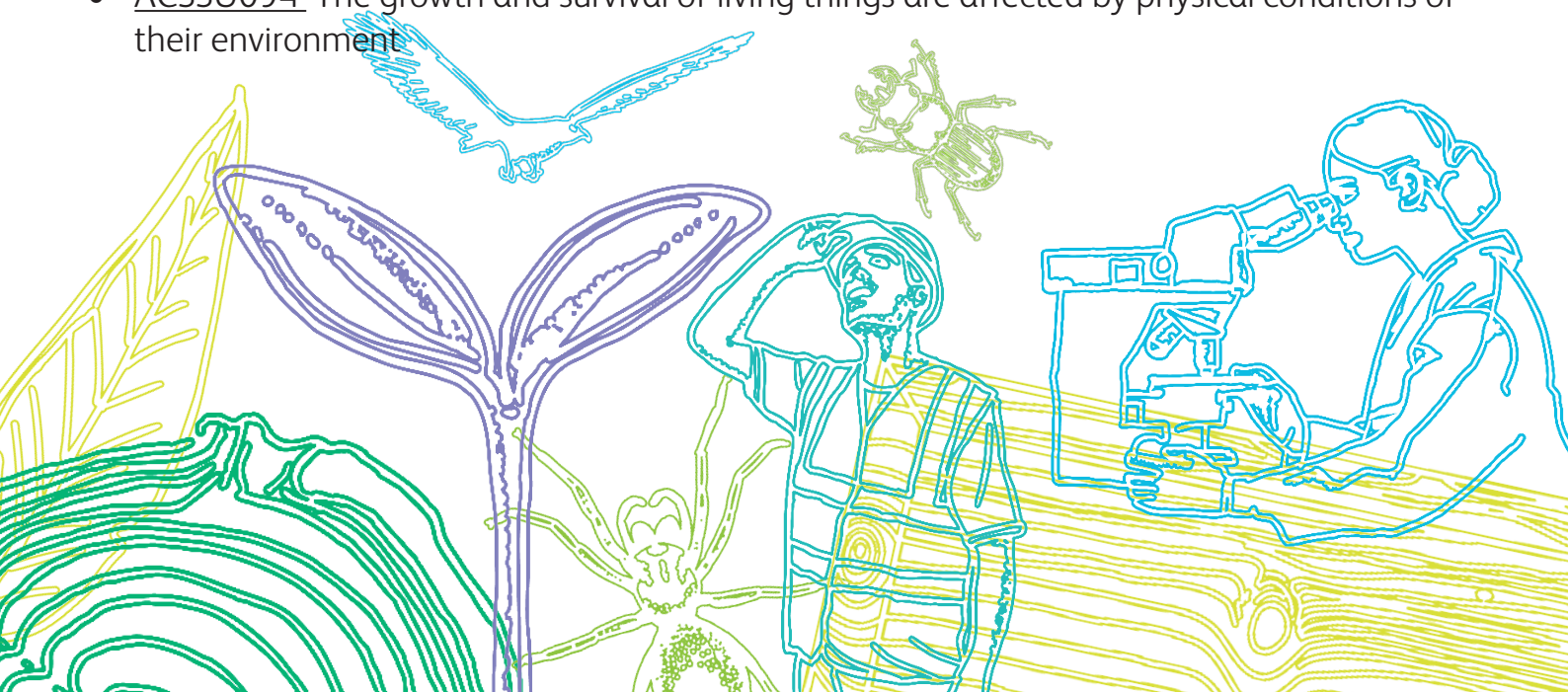
Year 5/6

DESIGN AND TECHNOLOGY

- ACTDEP028 Develop project plans that include consideration of resources when making designed solutions individually and collaboratively
- ACTDEP026 Select appropriate materials, components, tools, equipment and techniques and apply safe procedures to make designed solutions

SCIENCE

- ACSSU043 Living things have structural features and adaptations that help them to survive in their environment
- ACSSU094 The growth and survival of living things are affected by physical conditions of their environment



Suggested Activities

Species Hotel



Design and Make

Materials:

- Kit contents
- Natural materials (collect sticks, bark, leaves)
- Pencils and paper

Task:

- Students design a habitat for a chosen animal, using natural and constructed materials. Students should consider the features of the animal and where it would live.

Design Process:

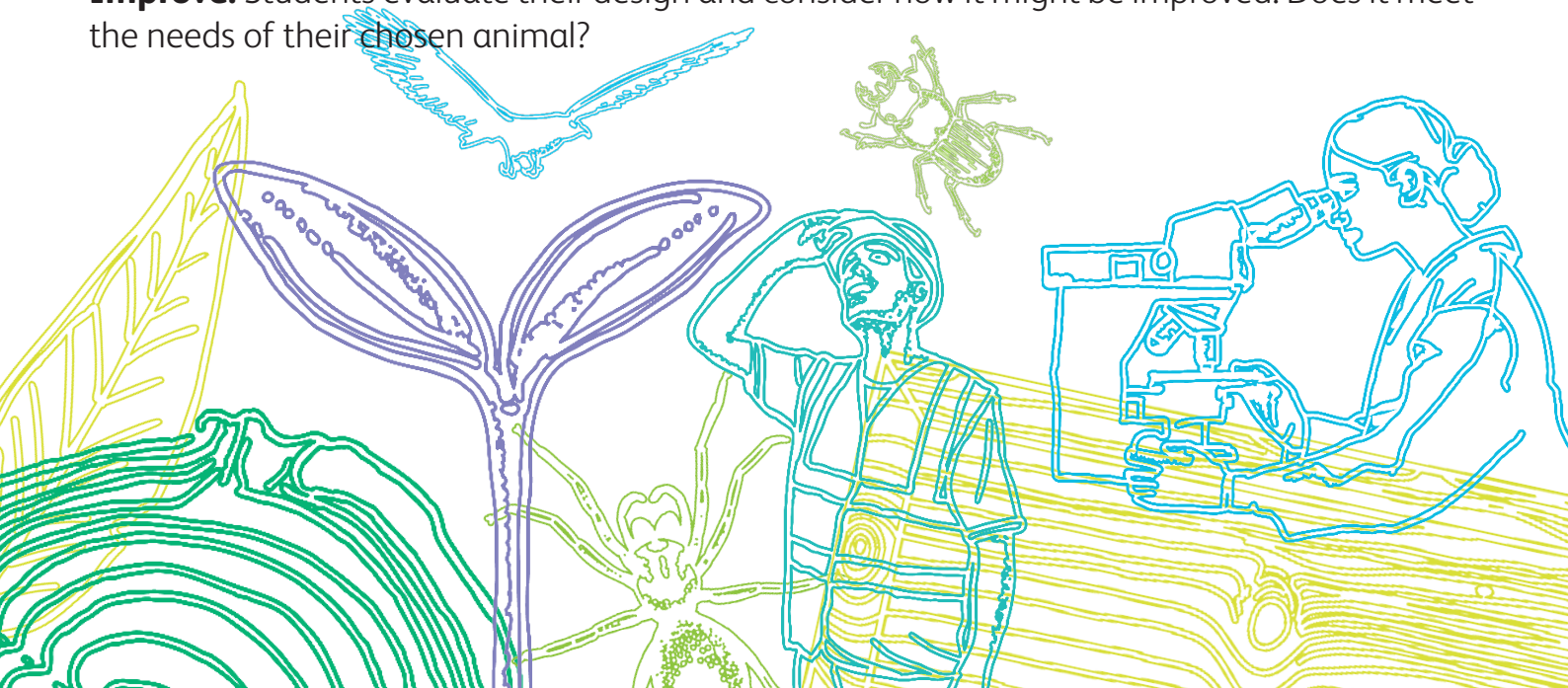
Ask: Students research their animal and its needs to consider how it will survive and stay healthy in its habitat. Provide students the opportunity to experiment with the materials in a discovery phase to tune them in. Encourage students to explore ways of joining, connecting and assembling components.

Imagine: Students brainstorm ideas for their species hotel. Encourage students to consider the structure of a forest in their design. What type of habitat does the animal live in? Will there be a dense or open canopy? Develop a success criteria as a class.

Plan: Students develop a visual plan of their species hotel and the materials they need. You may encourage students to collect their natural materials if applicable. Students should justify and explain the materials they choose.

Create: Students collaborate to build their design.

Improve: Students evaluate their design and consider how it might be improved. Does it meet the needs of their chosen animal?



Suggested Activities



Design and Make

Sculptural Species Hotel

Materials:

- Kit contents
- UTAS Species Hotel images
- Pencils and paper

Task

- Explore the ways animals have utilised human constructed shelters to nest and live. Utilise images provided as provocation. Encourage students to develop a constructed home for animals (using no found materials).

Imaginarium

Materials:

- Kit contents
- Natural materials (collect sticks, bark, leaves)
- Pencils and paper
- Create an imaginary animal and its ideal habitat. Identify how your animal is adapted to suit its habitat.

Key Questions:

- What does your animals need to survive? Does your habitat meet its needs?
- What sort of predator might your animal have? How does its habitat help it stay safe?
- How is your species adapted to its habitat? For example, is it an arboreal (lives in a tree) animal? How is it adapted to its tree dwelling life?

