

# YEAR 7 and 8 Animal Enrichment Design Plan



## Understanding Enrichment and Simple Problem-Solving

### Australian Curriculum links

#### Content descriptions

- AC9TDE8K01 – Analyse how people in design and technologies occupations consider ethical and sustainability factors to design and produce products, services and environments
- AC9TDE8P01 – Generate and communicate design ideas and evaluate them against criteria for success that include sustainability

#### Achievement standard (Years 7–8 band)

By the end of Year 8 students explain how people design, innovate and produce products, services and environments for preferred futures.

Students create and adapt design ideas, processes and solutions, and justify their decisions against developed design criteria that include sustainability.

#### Sustainability links

- SD1 - Sustainably designed products, environments and services aim to minimise the impact on or restore the quality and diversity of environmental, social and economic systems.
- SD2 - Creative and innovative design is integral to the identification of new ways of sustainable living.

#### Learning intention

We will learn about animal enrichment and design a simple, safe enrichment item that encourages a natural behaviour.

#### Success Criteria

We will be successful when we:

- research possible enrichment objects for small primates, macaws or eclectus parrots.
- plan, draw and justify an enrichment design
- create the enrichment object
- record animal observations to reflect on how the animals interact with the enrichment object

**Timeframe:** 4-6 lessons plus excursion to deliver enrichment objects.



**Tuning In Discussion:** What is enrichment? Why do animals need enrichment? What might happen if animals didn't have enrichment opportunities?

### **Whole Class Reading (10 minutes)**

Introduce the attached text; Animal Environment Enrichment, this has a Flesch Kincaid of 7.5. Teach the origin and meaning of the word enrichment.

Choose a strategy, echo, choral, cloze or partner read to go through the text together.

*Check for understanding with the following questions:*

1. Why is giving animals choice and control important for welfare?
2. How does good enrichment benefit animals?
3. What is the main purpose of environmental enrichment?
4. When designing an enrichment object for small birds or parrots, which feature is most important to include?
5. Why is safety an essential consideration when designing enrichment for both small birds and parrots?

### **2. Research – What enrichment looks like (20–30 minutes)**

Students research enrichment ideas for:

- Budgerigars
- Parrots or macaws – Blue and yellow macaws and eclectus parrots.

#### **Guided questions:**

- What natural behaviours does the animal show in the wild?
- What types of enrichment encourage those behaviours?

#### **Reputable enrichment websites**

- Zoo and Aquarium Association (Australasia) – Animal Welfare
- World Association of Zoos and Aquariums (WAZA) – Animal Welfare Strategy
- Hobart Zoo and Aquarium
- Shape of Enrichment (AZA-based enrichment resource)
- Zoo Enrichment Forum (UK-based, practical examples)

(Teacher note: These sites model **outcomes-based enrichment**, not novelty toys.)



### 3. Modelling – Teacher example (10 minutes)

Teacher models: A simple cardboard foraging tube for parrots

- A parrot foraging tube is a simple enrichment tool that encourages natural feeding and problem-solving. Make one using a bird-safe tube such as thick cardboard, bamboo, or untreated PVC. Add small holes so food can fall out or be reached gradually. Fill it with seeds, raw unsalted nuts, vegetables, leaves, or paper to increase challenge. Secure the ends safely (no glue or metal) and hang with untreated natural rope or secure onto a branch.



#### **Explain:**

#### **Behaviour encouraged:**

The parrot would be seen manipulating the tube with its beak and feet, shaking or chewing it to access food. This encourages natural foraging, problem-solving, and beak use.

#### **Materials used:**

The foraging tube is made from bird-safe materials such as thick cardboard, bamboo, or untreated PVC, and filled with food mixed with paper or plant matter to increase challenge.

#### **Safety considerations:**

All materials must be non-toxic, sturdy, and free from sharp edges or small parts. The tube should be securely hung, regularly checked for damage, and removed if it becomes unsafe.

### 4. Designing on paper (30 minutes)

Students complete:

- Annotated sketch of their enrichment item
- Labels showing:
  - Materials
  - How the animal uses it
  - Which natural behaviour it supports

#### **Written justification:**

“This enrichment helps the animal to... because in the wild they...”

### 5. Plan to make (30 minutes)

Students write:

- List of materials
- Step-by-step instructions
- Safety check (no sharp edges, toxic materials, small loose parts)

## 6. Making the object (1–2 lessons)

Students construct their enrichment using their chosen non-toxic materials. They can then take this home to put seed in and hang in their garden.

## 7. Excursion to Hobart Zoo and Aquarium

- To provide students with firsthand observation opportunities of animal behaviour
- To compare animal behaviour before and after enrichment is introduced
- To support evaluation of enrichment effectiveness and animal welfare outcomes

### Structure

- Visit Hobart Zoo and Aquarium to work with zookeepers to create environmental and food enrichment objects for the small birds, macaws and eclectus parrots.
- Students observe their selected small bird or parrot species prior to the introduction of the enrichment object using the observation task sheet.
- Students will observe and record:
  - General activity levels
  - Use of enclosure space
  - Social interactions (if applicable)
  - Repetitive or inactive behaviours
- *Enrichment item is introduced by zoo staff*
- Students observe the same animal *after enrichment*:
  - Interaction with the enrichment object
  - Changes in movement, engagement, or alertness
  - Any reduction or increase in specific behaviours
- Students record observations using a structured worksheet
- Observations will be used as evidence for the reflection and evaluation stage of the task.

## 8. Reflection (10 minutes)

Students respond to:

- What worked well in my design?
- What would I improve?
- How does this help animal welfare?



# Animal Environmental Enrichment – Year 7 and 8

**Enrichment (noun)** – *adding value to an experience to make it more interesting and engaging.*  
*Originates from old French, enricher meaning ‘in rich’*

Environmental enrichment means giving animals safe and interesting activities that let them behave in natural ways. This includes chances to search for food, explore their space, solve problems, move freely, interact with others, and make choices. Good enrichment helps animals feel calm and engaged. It also reduces stress and boredom and supports both physical and mental health.



Figure 1- Environmental enrichment: Meerkat exploring a hollow log.

Environmental enrichment is an important part of positive animal welfare. Animals that are mentally active and able to choose how they use their environment are more likely to show healthy, natural behaviours.



Figure 2- Food enrichment: Black capuchin monkey solving a puzzle to find high value food.

At Hobart Zoo and Aquarium in Tasmania, enrichment is part of daily animal care. The zoo uses enrichment activities such as foraging opportunities, changing habitats, animal presentations, and interactive feeding experiences to encourage natural movement, curiosity, and problem-solving in species including Tasmanian devils, birds, primates, and marine animals. Hobart Zoo and Aquarium is a ZAA-accredited facility, which means it is regularly assessed to ensure animals experience good welfare and meaningful daily engagement.

The Zoo and Aquarium Association (ZAA), which is a member of the World Association of Zoos and Aquariums (WAZA), requires accredited zoos to use outcomes-based welfare practices. These include providing animals with choice, control, and cognitive challenge, not just food and shelter. Designing, trialling, and evaluating enrichment activities directly supports these welfare standards and creates real-world design and problem-solving opportunities for students.

## References

Hobart Zoo and Aquarium (2026) *Hobart Zoo and Aquarium – Education and animal care*. Available at: <https://www.hzaa.com.au/> (Accessed: 26 March 2026).

Hobart Zoo and Aquarium (2025) *Hobart Zoo and Aquarium*. Wikipedia. Available at: [https://en.wikipedia.org/wiki/Hobart\\_Zoo\\_and\\_Aquarium](https://en.wikipedia.org/wiki/Hobart_Zoo_and_Aquarium) (Accessed: 26 March 2026).

Zoo and Aquarium Association Australasia (ZAA) (2025) *ZAA accreditation and animal welfare*. Available at: <https://www.zooaquarium.org.au/public/Public/Animal-Welfare/ZAA-Accreditation.aspx> (Accessed: 26 March 2026).

Zoo and Aquarium Association Australasia (ZAA) (2025) *About ZAA and animal welfare standards*. Available at: <https://www.zooaquarium.org.au/> (Accessed: 26 March 2026).

World Association of Zoos and Aquariums (WAZA) (2023) *Caring for wildlife: WAZA animal welfare strategy*. Available at: <https://www.waza.org/> (Accessed: 26 March 2026).



# Primate Enrichment Design – Years 7 and 8

**Name:**

**Class:**

## Understanding Enrichment and Simple Problem-Solving

### Achievement standard (Years 7–8 band)

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### Sustainability links

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**Timeframe:** 4-6 lessons plus excursion to deliver enrichment objects.

## Research

### Project Overview:

Create a safe, sustainable enrichment item for a specific, small bird or parrot species.



# Species and Behaviour Analysis

Chosen species:

<i>What key natural behaviours does your species display in the wild?</i>	<i>What environmental conditions support this behaviour?</i>

What types of enrichment have been used successfully:

Choose one enrichment item to research in detail to complete the table below:

Strengths	Limitations	What would you improve?



Explain how enrichment provides cognitive challenge, choice and control?

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# Design

## Project Overview:

Create a safe, sustainable enrichment item for a specific, small primate species that encourages natural behaviours through enrichment.

My chosen species is.....

Draw and label two diagrams of potential designs.

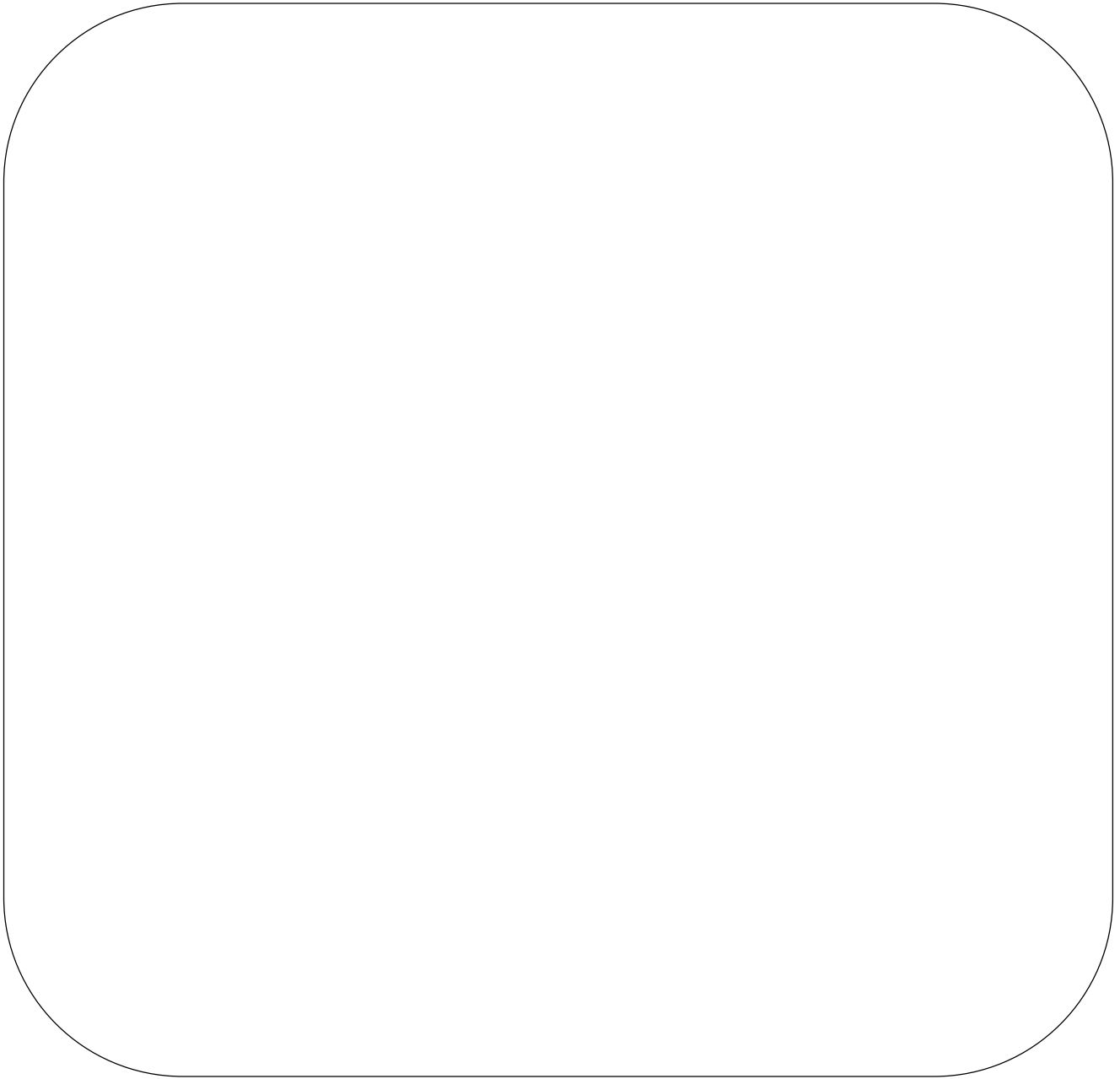
### Design 1 - Make sure you include:

- materials
- features
- where the food item will be placed
- any fixtures to secure it in the animal's habit – these will be provided during your excursion



**Design 2:** Make sure you include:

- materials
- features
- where the food item will be placed
- any fixtures to secure it in the animal's habit – these will be provided during your excursion









## Make your product

Follow your construction process to create your product.

Remember, your object must:

- be structurally sound and durable
- reflect the intended behavioural outcome
- use appropriate, approved materials
- be safe for animal interaction

## Reflection

1) What worked well in my design?

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2) What would I improve? Why?

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3) How did your design support the natural behaviour of the local birds?

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# YEAR 7 and 8 Animal Enrichment Design Rubric - Understanding Enrichment and Simple Problem-Solving

Name:

Class:

Criteria (Australian Curriculum links)	Working Towards Standard	At Standard	Above Standard	Well Above Standard
<b>AC9TDE8K01 – Analyse how people in design and technologies occupations consider ethical and sustainability factors to design and produce products, services and environments</b>	Identifies basic features of enrichment and lists simple materials with limited reference to safety or sustainability.	Describes enrichment features and explains simple safety and sustainability considerations.	Explains and examines how ethical and sustainability factors influence design choices and materials.	Analyses and justifies how ethical and sustainability factors shape effective, safe, and responsible design solutions.
<b>AC9TDE8P01 – Generate and communicate design ideas and evaluate them against criteria for success that include sustainability</b>	Produces a simple design with minimal detail and limited communication of ideas.	Generates and communicates a clear annotated design including materials and purpose.	Develops and presents detailed, well-annotated designs that link clearly to behaviour and function.	Creates and refines multiple design ideas, communicating them clearly with detailed annotations linked to behaviour, function, and sustainability.
<b>AC9TDE8K01 – Analyse how people in design and technologies occupations consider ethical and sustainability factors to design and produce products, services and environments (Safety &amp; Ethics)</b>	Identifies a few obvious safety issues with limited detail.	Describes key safety considerations (e.g., non-toxic materials, no sharp edges).	Explains safety risks and applies strategies to minimise harm and ensure ethical design.	Analyses potential risks comprehensively and justifies design modifications to ensure high standards of safety and ethical practice.
<b>AC9TDE8P01 – Generate and communicate design ideas and evaluate them against criteria for success that include sustainability (Production Planning)</b>	Lists basic materials or steps with limited sequencing.	Outlines materials and a logical step-by-step construction process.	Develops a detailed and sequenced production plan with clear instructions.	Designs a refined, detailed production plan that anticipates challenges and ensures efficiency and sustainability.
<b>AC9TDE8P01 – Generate and communicate design ideas and evaluate them against criteria for success that include sustainability *(Product Outcome)</b>	Produces a simple or incomplete product with limited function.	Produces a functional product that meets basic design intentions.	Constructs a well-made, durable product that supports intended behaviours.	Produces a high-quality, durable and effective product that clearly enhances natural behaviours.

