

# Project Numbat

## Teacher and Student Resource Package

### Middle and Upper Primary School

#### About Project Numbat

Project Numbat is a community-based not-for-profit organisation working to raise awareness and support for the conservation of Western Australia's unique animal emblem, the Numbat.

Information about the organisation and its activities can be found at [www.numbat.org.au](http://www.numbat.org.au).

#### Teacher Overview

The following package has been developed by Project Numbat to support teachers in embedding conservation education into curriculum programs. The package provides cross-curricular activities focusing on the Western Australian animal emblem – the endangered Numbat – and other native animals.

It has been designed to enhance the effectiveness of the Project Numbat powerpoint presentation which can be downloaded and delivered by teachers with the accompanying detailed lesson plan to support its implementation. It is strongly advised you read the **Numbat Fact Sheet** before delivering the presentation as this covers most aspects of the Numbat and will help in guiding discussion and answering questions during the presentation.

Alternatively, teachers can request a Project Numbat volunteer to deliver the presentation and facilitate discussions on-site with students. Requests can be sent to [schools@numbat.org.au](mailto:schools@numbat.org.au).

If a Project Numbat volunteer is visiting your school, please note they are not all trained teachers, though all have experience working within the education field and all have current Working with Children status. Please support our presenters and your students by reading this support pack carefully to ensure you maximise the learning opportunities available from this experience.

The Before and After Activity Packages extend the learning experiences beyond the powerpoint presentation, thus enabling the key understandings to be embedded across the curriculum over a period of time instead of being delivered as an isolated learning experience.

Through use of these activities prior to and after the presentation, teachers can ensure learning opportunities are maximised. This will nurture the development of environmentally responsible students and ultimately lead to positive actions being undertaken that support the well-being of our unique Western Australian native animals.

#### We Want to Hear from You!

We are keen to hear how you have implemented the Project Numbat education package in your classroom and would like to showcase student learning on our website. If you have anything you would like to show us, please send it to [schools@numbat.org.au](mailto:schools@numbat.org.au).



# Project Numbat Presentation

## Years 4-7

The following section provides background information for teachers about what the Project Numbat presentation entails.

The duration of the presentation is approximately 45 minutes and depending on student concentration and motivation may be extended for up to an hour.

The delivery of the incursion will be supported by a PowerPoint Presentation, which incorporates a range of strategies employed to engage students actively in the learning process. Such strategies include opportunities for collaborative discussion, problem solving and the use of teaching aides.

The incursion will cover information about the Numbat's physical characteristics, diet, special features, habitat/location, threats to survival and finally what is being done already to help Numbats in the wild and what individuals/community groups can do to support the Numbat and other native animals.

**Materials/Equipment:** computer notebook, Middle/Upper Primary Project Numbat PowerPoint Presentation, Project Numbat Fact sheet for background information, Middle/Upper Primary Before and After Activities, Middle/Upper Primary Resources, access to a white board

### Curriculum Framework Links:

English/Listening and Speaking – Students listen with purpose, understanding and critical awareness in a wide range of situations. Students speak with purpose and effect in a wide range of contexts.

Science/Life and Living – Students understand their own biology and that of other living things and recognise the interdependence of life.

**Project Numbat Objectives:** By the conclusion of the presentation students will be able to:

- identify the Numbat as an animal unique to Western Australia
- identify and describe some of the physical characteristics and functions of the Numbat
- gain understanding of what the Numbat needs for survival
- gain understanding of the threats to Numbat populations in the wild
- have knowledge of action that they undertake in order to protect the survival of the Numbat and other native animals.



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# Lesson Plan

If a Project Numbat volunteer is presenting to your students, she/he will introduce herself/himself to the group of students and ask if they know why she/he has been invited to visit them. She/he will explain the purpose of the visit eg: “I have been invited today to talk to you about a unique Western Australian marsupial, the Numbat.”

Prepare the students for thinking. Tune them in by explaining that you are going to share some information about the Numbat with them and let them know in advance that they have a job to do too (so they know not to be passive learners and they have a responsibility at the end of presentation) by asking them, “Does anyone know what their job might be?”

Tell them their job is to:

- listen carefully to the information
- remember at least three pieces of information they find interesting
- think of questions to ask or comments/experiences to share based on the information you are going to give them.

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## SLIDE ONE - Project Numbat Title Slide

[Click once] Begin presentation by asking, “Does anybody know what a Numbat is?”

Select a couple of students to respond and praise efforts eg:

- “Well done, that’s very good thinking, a Numbat is an animal special to WA.”
- “Not quite, but I’m going to let you in on a little secret. By the end of our time together you are not only going to know what Numbats are you are also going to know a million other cool things about Numbats to share with all of your family and friends.”

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## SLIDE TWO - What is a Numbat?

[First click] Numbats are small marsupials.

Numbats are classified as mammals as they have a body covering of fur/hair, are warm-blooded and nourish their offspring with milk. There are three types of mammals, monotremes (egg-laying like the platypus), placental mammals (born at an advanced stage of development, nourished prior to birth through the placenta eg. humans) and finally marsupials.

Numbats belong to this group as with other marsupials the young is born in a very immature state and develop fully after birth, in many cases in their mother’s pouch which is another physical feature of a marsupial.

[Second click] They are native to Western Australia.

Numbats are now only found naturally in Western Australia.

[Third click] Its scientific name is *Myrmecobius fasciatus*.

[Fourth click] It is the Western Australian animal emblem.

Discuss emblems, particularly in relation to their school or the State.

[Fifth click] The Numbat is an endangered species with less than 1000 left in the wild.

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## SLIDE THREE then FOUR - Description

“Let’s take a closer look at the physical features of a Numbat on the next slide.”

[Leave the slide featuring the Numbat image prior to clicking for the information to appear on Slide Three.]

“What are some things that you notice about the physical features of a Numbat simply through using your own observation skills?”

Ask students to share with peers beside them or provide them with some thinking time prior to selecting students to respond to the whole class.

Praise student responses/clarify when and where required before proceeding with the remainder of the slide. [one click per descriptor–six clicks in total]

### *Additional Information*

Numbats have a flat head with a long **snout**. The long snout makes it easier for their nose to sniff out termites in logs and mounds.

Numbats have long and sharp **nails** for scratching termites from mounds, the ground, wood etc.

Their **tongue** is about 10 cm long and sticky. It moves extremely fast to capture termites which are swallowed whole.

They have 25 pairs of **teeth**, mostly below the gum line as they are not required for eating

Their **colouration** is useful camouflage. In the daylight it is used to evade predators as the colours and stripes break up the body outline so they blend into the environment. The stripes provide a confusing flash of black and white when they run.

The Numbat has reddish-brown fur with black and white bands across its back and a black stripe through each **eye**. The black around the eye helps reduce glare from the sun which makes it easier for the Numbat to spot aerial predators. The stripes on a Numbat’s back are unique. They are different for each Numbat.

Numbats are one of only two marsupials that are active during the day. An animal that is active during the day is called a **diurnal** animal, as opposed to a nocturnal animal which is awake at night. Relate this

to their food source being active during the day and asleep at night. Numbats eat termites which are active during the day.

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## SLIDE FIVE - Location and Habitat

[Pause on title]

“What kind of habitat or environment do you think Numbats live in?”

[Click]

Show students the image and then allow for responses.

Referring to the first image on the slide, talk about what Numbats live in (hollow logs) with image of Numbat habitat. Ask, “Why do you think they spend a lot of time in hollow logs?” (shelter, protection, warmth etc.)

[Click] Continue with presentation of information featured on the slide.

Conclude on this slide asking the students to consider why Numbat populations have been reduced so much that they are only found in small pockets in the south-west of Western Australia.

Brainstorm student ideas on a white board and allow for open to discussion to occur without confirming ideas. Just concentrate on capturing student thought and then proceed to next slide which provides further explanation.

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## SLIDE SIX - Threats to Numbats

[Pause on title]

Reflecting on student responses from discussion, begin with Slide Six which shows images relating to the threats that Numbats are currently facing. These have been placed in order of the level of threat each poses, beginning with the most threatening process which is:

- 🗄 [first click] introduced species
- 🗄 [second click] habitat destruction
- 🗄 [third click] natural predators such as birds of prey and snakes
- 🗄 [fourth click] fire.

Explain that we have already learnt lots of things about Numbats. “What are some facts that you have learnt already?”

Select some students to quickly recap some of the information that has been presented.

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## SLIDE SEVEN - What does a Numbat do?

[Proceed with one click per item–six in total–and discuss]

- The 5 veg and 2 fruit rule doesn't apply to Numbats. They are insectivorous and only eat termites.
- Because of their diet, Numbats are most active during the day as this is when the termites are moving around.
- Numbats are solitary animals and have their own territories. Male and female territories may overlap, especially during the breeding season (late December to late February).
- Females can breed at one year old.
- Males can breed at two years old.
- When males are looking for a mate, their sternal gland on their chest) becomes active. It exudes an oily liquid which turns the fur red.

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## SLIDE EIGHT - Growing Numbats

[One click each stage] Talk through the images of the Numbat babies growing.

Explain that they give birth to four young after carrying the babies inside for 14 days. Relate this to the length of time they were in their mother's womb. "Do you think 14 days is a long or short time?" Compare it to the length of school holidays.

Talk through how Numbat young grow. Young Numbats are carried around on their mother's teats inside her pouch.

Students may be able to name other Australian animals that have a pouch to carry their young in but what they may not know is that pouches can be slightly different depending on the animal. For example, a koala's pouch has the opening towards the bottom as opposed to a kangaroo which has the pouch opening at the top. A **Numbat's pouch** is not a true pouch but rather an opening with a flap of skin that hangs down over the young. The inner thigh area swells creating an indentation where pouch young attach to the four nipples.

When they're six–seven months old, they're put in a burrow. They stay with their mother until they can look after themselves and then they move away and put all the things they have been taught into practice.

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## SLIDE NINE - What's being done to help the Numbat?

"Lots of people are trying to help Numbats." Proceed through each action being carried out [one click per action–five in total].

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## SLIDE TEN - Saving the Numbat is a challenge but you can help

## [Pause on title]

Tell students there are some simple things that they and their school friends and families can do to help out and this will help other animals as well.

Proceed with the actions **[one click per action]**:

- Be a responsible camper
- Be a responsible pet owner
- Respect and care for the environment
- Stay on the tracks when bushwalking
- Become a member of Project Numbat
- Fundraise for Project Numbat
- Tell people about the Numbat (or show them with posters, writing in newsletters, etc).

“We are going to do one of these actions right now and teach others about what we have learnt. In a moment I want you to turn to someone near you and let them know one interesting thing that you learnt today about the Numbat. You can talk about what you could do together as a class to help out. Then after you have done this I’m going to ask some of you to share your ideas.”

Give students a couple of minutes to share with each other and then refocus their attention again. To conclude ask the above question to the class and hear a few responses from the students about what they learnt today and what they think they may be able to do as a class to help protect the Numbat.

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## SLIDE ELEVEN - Where to see Numbats

### [Click once]

You may be lucky to see Numbats in the wild in Dryandra Woodland, Perup and other areas around Manjimup in WA’s south-west but they are often hard to see.

Perth Zoo is one of only two zoos in the world that has Numbats and the only one which breeds them.

Encourage students to tell as many of their family and friends about the unique WA native animal, the Numbat and although they may be challenging to spot in the wild a trip to Perth Zoo is a good spot to show them a real Numbat up close.

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## SLIDE TWELVE

To conclude, thank the students for their great listening.

