

# U Orangutan Project – National Education Program Specific Classroom Pack: Class 6 to 7



## Introduction

This information pack is designed for primary class 6 to secondary class 7. The worksheets contained within this pack are designed to provide resource material for use by the teacher on the orangutan, its environment and society.

For more information please visit our Website on [www.orangutan.org.au](http://www.orangutan.org.au)

## Target Audience

School	Class	Ages	Topics	Material Required
High School (Secondary)	10	15		
	9	14		
	8	13		
	7	12	Society & Environment Geography	<a href="http://www.orangutan.org.au">www.orangutan.org.au</a> Activity Sheets – 6 to 7
6	11	Orangutan Intelligence		
Primary School	5	10		
	4	9		
	3	8		
	2	7		
	1	6		
	Reception / Early Childhood	K	5	

## Contents

This pack contains the following

Orangutan Fast Facts.....	Information .....	Page 1
Science – Life Systems.....	Biology .....	Page 2
Society & Environment – Place, Space & Environment .....	Biology .....	Page 3
Society & Environment – Time, Continuity & Change .....	Biology .....	Page 4
Society & Environment Study .....	History .....	Page 5
Mapping .....	Geography .....	Page 8
Palm Oil .....	Biology .....	Page 10
Indonesian Word Search.....	Language .....	Page 11
Word Searches .....	English .....	Page 12
Orangutan Infants .....	Comprehension & Retention .....	Page 14
Orangutan Intelligence.....	Information .....	Page 17





## Framework for Primary Years 6 – 9

**Key Idea:** Students access, investigate, interpret and represent information from field-work, electronic systems and other research, in order to explain local and global interactions and relationships between people and environments.

**Key Idea:** Students discuss environmental, conservation or resource issues, and individually and / or in teams collaboratively develop strategies to bring about positive change in the local community.

- 1) Show and report on understanding of the interrelationship between natural and built environments, resources and systems.
- 2) Identify and describe significant resources, explain the threats which endanger them, and suggest strategies to combat the threats.
- 3) Interpret and represent data about natural and built environments, resources, systems and interactions, both global and local, using maps, graphs and text.
- 4) Hypothesises, collect, record, organise and evaluate data from field – work, print and electronic sources, in order to analyse local and global, environmental and socio-economic issues.
- 5) Report on issues related to people’s sustainable use of resources or places, after critically analysing information from multiple sources and discussing the political implications of decision.
- 6) Understand that people cause changes in natural, built and social environments, and they act together in solving problems to ensure ecological sustainability.
- 7) Identify factors affecting an environmental issue, and report on ways to act for sustainable futures.
- 8) Identify and describe ways that places and natural environments are valued or threatened, and discuss strategies related to ecological sustainability.

**Key Idea:** Students investigate and analyse events, ideas, issues and lives of people in their local community, nation and the world, identifying patterns, changes, continuities and possible futures.

**Key Idea:** Students gather. Research, analyse, evaluate and present information from a variety of sources to show understanding of particular times or events, from a range of perspectives.

**Key Idea:** Students work cooperatively with others or in teams to discuss points of view and arguments about particular events or issues in order to consider values associated with them and to explore ways in which future change or continuity can be influenced.

**1)** Suggest and justify why groups of people in societies, countries or civilisations have undergone changes in wealth and / or their ability to sustain natural resources.

**2)** Analyse aspects of people's lives and heritages in relation to broader social issues and events, imagine future possibilities.

**3)** Explain why local and international communities have changed and are likely to change in the future.

**4)** Interpret people's motives and actions from perspectives of power, and relate this to future possibilities, using a historical or contemporary event or issue.

**5)** Explain and justify a position on continuing and changing aspects of societies, including underlying values, ways to influence the future, and how these are connected to responsible decision-making and action.

**Learn about the history of peoples treatment of orangutans, for example the use of orangutans as pets or for human entertainment.**

- 1) How do you think we have changed our attitude to orangutans (and animals in general)?
- 2) Are we doing enough to look after animals and the natural world they live in?

**Hold a debate about whether the pet trade of orangutans is appropriate in this day and age.**

- 1) Discuss what you think might be an appropriate punishment for people doing the wrong thing when it comes to animals.
- 2) Do you think hunters and poachers should be arrested?
- 3) is it wrong to hunt orangutans to earn money?
- 4) Why or Why not?

**Before breeding programs are started, a variety of factors need to be considered. If orangutans are becoming so rare, why aren't we just breeding as many as we can?**

- 1) What are the factors that need to be considered?
- 2) What can be done to help get breeding programs working?

**Why should we even care if there are any orangutans left?**

- 1) Discuss why it does or doesn't affect us whether or not we have any responsibility to do anything about what is happening to them.
- 2) Should we only consider helping out with an animal if it has a direct and obvious impact on us as individuals?
- 3) Why or why not?

**Consider the modern zoo...is it OK for animals to be kept in captivity and in what circumstances?**

- 1) Discuss the issues that need to be considered when having a wild animal confined in a zoo.
- 2) How are zoos today different from ones 50 years ago?
- 3) Some modern zoos are involved in conservation, education, research, breeding programs, and reintroduction of animals into the wild.
- 4) Maybe you could go for a trip to the zoo and see the orangutans. Do they look to have an appropriate environment to be living in.

**Consider the orangutan's "footprint" (in this case pretty much the same as its hand print). Use this as a link to start talking about metaphors and 'other' types of footprints:**

Ecological footprint has to do with how much of the earth's resources we use in daily life, which can have a lasting impact on the health of the planet.

## **CLASS DEBATE ISSUES**

You could organise a class debate on some of the issues below.

### **Suggested topics may include:**

- 1) One person can make a difference to the world.
- 2) If I didn't make the mess, I shouldn't have to clean it up.
- 3) Animals should have the same rights to live as people.
- 4) If treating orangutans like this is someone's tradition, we should not interfere.

- Cultural or spiritual refers to lasting messages that are imprinted in us as individuals or societies.

- In order to live, people consume what nature offers. So, every one of us has an impact on our planet. This is not bad as long as we don't take more from the earth than it has to offer.

- 1) But are we taking more than we should?

- 2) Keep in mind that we need to leave room for not only other people, but for the 25 million other species on the planet. Already, humanity's footprint may be bigger than nature can provide for.

- What kind of cultural 'footprints' are we leaving for our children?

- What is the message we pass on about things like the value of animals and plants in this world?

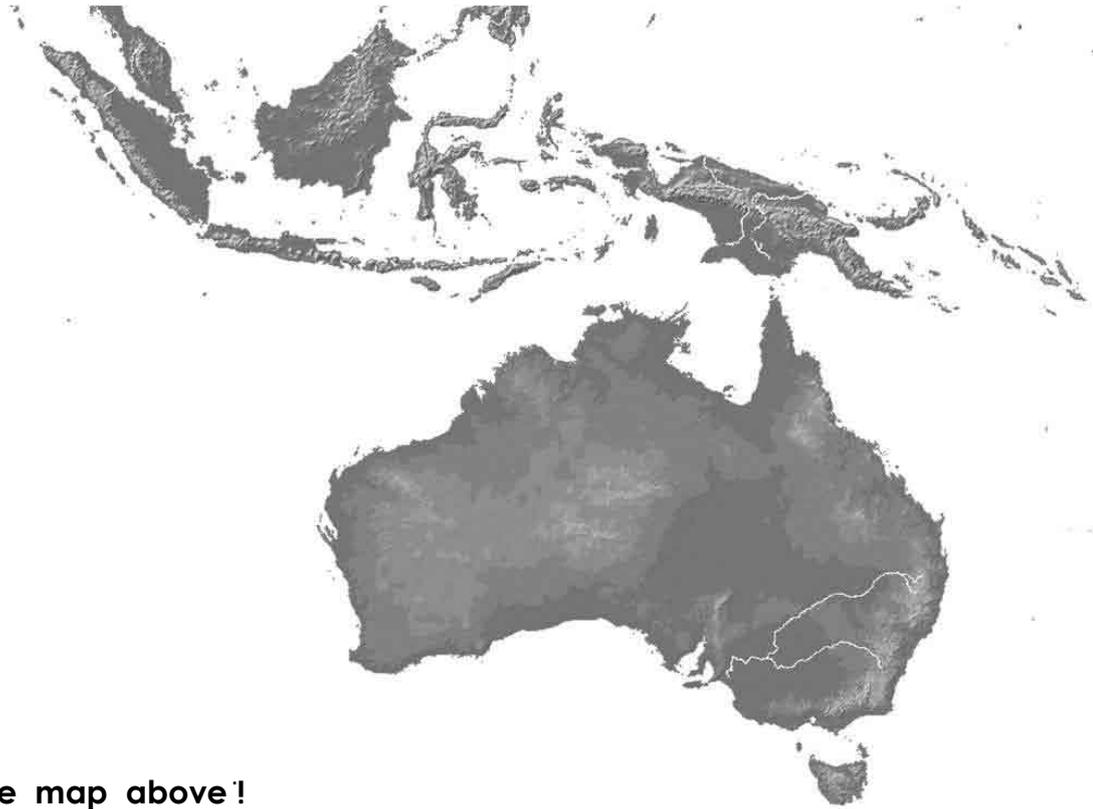
- In such a throw away society, do we really teach our children to look after the world around us and each other, or are we too busy taking care of our own selfish needs?

- Do you think about the future and the impact of our choices, or just convenience of each moment?

## Final Thought:

- What do you think happens to orangutans when their natural habitats are taken away? If they are not killed, where do they go?
- If parts of wild orangutan habitat are destroyed, do orangutans have the same amount of land to travel across when looking for food and shelter?
- Where else (besides the natural forests) do wild animals end up having to look for food and shelter?
- Do you think that local people like to see animals eating food from their farms and gardens?
- What sort of attitudes will local people have towards these animals?

Orangutans are found in the wild on the islands of Sumatra and Borneo. It is good for us to understand where these islands are in relation to Australia. Use an atlas to help you with the following tasks (When you've completed these tasks, you might like to mark in extra features which you've read about, e.g. some of the care centres, cities, rivers, mountains, other islands, etc.).



### On the map above!

1. Label Australia.
2. Place an X to show where you live in Australia. Label your suburb and state.
3. Rule a line for the equator.
4. Rule a line for The Tropic of Capricorn.
5. Label the island of Sumatra.
6. Label the island of Borneo.
7. Temara was released in Bukit Tigahpuluh National Park, which is close to Jambi. Label Jambi.
8. The other main island of Indonesia is Java. Label Java.
9. Find the capital of Java and label it.
10. Label the oceans and seas around Australia.
- \*11. Some of Borneo is owned by Indonesia and some by Malaysia. Discuss this with your teacher and other students before you label them. Use different colours to highlight the different countries.

Now it's your turn. Add in your special features.

**1)** Look at an Atlas, where are the islands of Borneo and Sumatra located? See how many Indonesian islands you can find and name.

---

---

---

---

**2)** Identify which countries are to the south, east, north and west of Borneo.

---

---

---

---

**3)** Borneo is considered to be the third largest island in the world (second only to Greenland and New Guinea). If this definition is correct, Australia is not counted as an island. Why not?

---

---

---

---



*This text is a simplified version of what is found in the TOP 'GMcc'g Pack presentation.*

- Palm oil is a vegetable oil which comes from the fruit of the African oil palm tree.
- These trees grow well in hot environments which also have high rainfall.
- Most of the world's palm oil is now grown in Borneo and Sumatra.
- Palm oil is used in many foods, cosmetics and bath products.
- In Indonesia, many wet, swampy rainforests are being cleared so that palm oil trees can be planted. This means that the environment of the orangutans and many other animals is being destroyed.
- People are also losing their homes! Many of them are forced to give up their land so that palm oil plantations can be established. Often, they are paid very little for their land.
- The palm oil companies often don't employ the local people, so they don't have any work to earn an income for their families.
- On many palm oil plantations, lots of pesticides are used. This pollutes the rivers which are used for drinking water. It also kills the fish which the local people need for food.
- To clear the land, fires are often illegally lit. When this happens, lots of carbon goes into the air. (You can discuss with your teacher why this is so bad for the entire world.)
- Indonesia will probably be written into the Guinness Book of World Records for destroying forests faster than any other country between 2000 – 2005.
- Local people need to learn how to grow products in an "Environmentally Sustainable" way. In fact, we all do! (Discuss what this means with your teacher.)
- The TOP is trying to slow down the growth of the palm oil plantations. At the same time, it is supporting the local people so that they don't suffer as a consequence of this.

---

**Something to think about:** Lots of oil palms are being planted because the oil is used in a huge number of products which we use.

What does this mean? \_\_\_\_\_

\_\_\_\_\_

What can we do about it? \_\_\_\_\_

\_\_\_\_\_

**Activity:** Explain what you have learnt about palm oil to one or both of your parents. Ask for permission to look at the labels of the food in your pantry, to discover which of them contain palm oil. Write down a list of these products. Even better, ask if you may bring the packaging to school. This packaging could be used to create a display.

(\*\* Sometimes, instead of stating "Palm Oil", the label may simply say "Vegetable Oil".)

This word search is the same as the previous ones, except for one feature. The words on this grid are Indonesian! So that you will understand the meaning of these words, an English translation has been given to you in the list.

When you search for the words in the grid, you'll discover that they are written horizontally, vertically and diagonally. There are also several over-laps and reversals. As before, highlight the words on the grid (Indonesian this time), to match their partners on the list, e.g. If you colour the word mengajar orange on the grid, then it should also be orange on the list. Colour the translation too.

T	S	M	I	L	I	H	A	T	R
B	A	N	G	U	N	N	F	M	A
M	R	R	A	P	A	L	O	D	N
E	A	B	O	T	O	L	N	I	G
N	N	O	U	I	G	A	P	N	U
G	G	H	I	T	N	R	A	G	P
A	S	U	S	U	A	D	B	I	A
J	E	O	R	A	N	G	U	N	N
A	C	H	O	A	E	G	A	K	A
R	T	I	K	A	S	I	H	L	S

### List Words

Indonesian	English Translation
kandang	cage
lapar	hungry
milihat	look
mengajar	teach
pagi	morning
susu	milk
botol	bottle
bangun	wake up
buah	fruit
dingin	cold
panas	hot
sarang	nest
senang	happy
orang	person
hutan	forest
sakit	sick

**Activity:** When you have found all of the words, there will be twenty one letters left over. If you re-arrange them correctly, they will spell (in English) the missing words in the sentences below (They are translations from the list above).

My left-over letters are: \_\_\_\_\_

Each \_\_\_\_\_, the carers take the orphaned orangutans into the forest.

There, they \_\_\_\_\_ them survival skills. One of the most important is to \_\_\_\_\_ for \_\_\_\_\_ to eat.

# My Orangutan Word Search

Year  
Level  
6-7

Now it's time for you to create your own word search. All of the words must be associated with the real lifestyles of orangutans living in the wild, in captivity or in care centres.

Instructions for my activity.

---

---

---


## My List Words

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

**My Activity:** \_\_\_\_\_

---

---

**Don't forget to create a solutions page to match.**

Activity prepared by – Heidi Bullo



# Orangutan Word Search – #4

Year  
Level  
6-7

When you search for the words in the grid, you'll discover that they are written horizontally, vertically and diagonally (Many are written backwards in all forms and there are numerous over-laps as well).

To make the words very clear, highlight them with as many colours as possible. Also, please colour highlight the words on the grid to match their partners on the list, e.g. If you colour the word rehabilitate blue on the grid, then it should also be blue on the list.

S	N	A	T	U	G	N	A	R	O	D	E
C	A	P	T	I	V	I	T	Y	E	T	N
Z	J	A	S	P	L	A	Y	S	A	Z	I
I	L	L	E	G	A	L	T	T	P	O	T
R	A	M	N	W	V	R	I	E	E	O	N
E	M	O	Y	B	U	L	T	P	O	D	A
S	I	I	P	C	I	E	R	A	R	L	R
C	L	L	T	B	P	A	E	C	P	I	A
U	K	I	A	Q	U	R	E	S	H	U	U
E	O	H	U	M	A	N	S	E	A	B	Q
N	E	C	O	N	F	I	D	E	N	C	E
R	R	A	I	N	F	O	R	E	S	T	S

## List Words

orangutans  
rehabilitate  
quarantine  
captive  
adopt  
rainforests  
palmoil  
illegal  
orphans  
confidence  
humans  
destruction  
AOP  
rescue  
escape  
trees  
build  
nest  
play  
learn  
milk  
zoo  
ape (twice)

**Activity:** Imagine that you are creating a crossword puzzle using the first twelve list words. As part of your preparation, rewrite these words and next to each, write out the clue which you would supply.

E.g. rescue – to free from danger or imprisonment.

Orangutan youngsters are like human children- they need lots of care and attention. They also need to learn many things from their mother to enable them to live by themselves when they are older. Male orangutans stay with their mother until they are about eight years old. Females stay with their mother until they are about 11 years old, so they can observe their mother raising her younger brother or sister. By watching their younger sibling being raised for a couple of years, they will then know how to look after their own baby. Orangutans don't live in large family groups like gorillas and chimpanzees do in Africa. They mostly live by themselves, so young orangutans learn everything they need to know from their mother.

Orangutan babies cling onto their mother's hair immediately after birth so their mother is still free to use her hands and feet for climbing. Orangutan babies start to venture away from mum at about 8 months of age, but they stay very close to her and she will always scoop her baby up when she starts to travel again through the canopy. Young orangutans suckle until they are 5 years of age, but start to eat some solid food at about six months of age.

Things that young orangutans have to learn from their mums before they can leave home include -

- A mental map of the forest so they know the location of fruit trees in the jungle.
- When certain trees fruit during the year so they can travel to them to eat the food.
- What food they can eat and what is poisonous.
- How to open some fruits/nuts or get to food sources., e.g. may use sticks to get honey out of a bees' nest or use sticks to help open spiky fruit.
- How to move from tree to tree without falling. Orangutans don't leap through the trees or 'brachiate' like gibbons because they are too heavy. They try to always have a grip on a branch with a hand or foot in case they fall. Orangutans learn to sway trees with their body weight, so they lean into the next tree and make travelling through the canopy safer.
- How to make a nest to sleep in at night. Wild orangutans make excellent night nests in which to sleep. They fold over small branches and then pack them with leaves to make it comfortable. Orangutans sleep from dusk until dawn so about 6pm - 6am.
- A timetable of what to do during the day. Orangutans generally travel and forage from dawn until about 11am. They then make a quick day nest and rest during the heat of the day (11am - 2pm). They will then travel and eat more until making their night nest at about 5pm.

When baby orangutans' mothers are killed and they are stolen by people to become pets, the baby orangutans will be very upset. They have only ever known their mothers and people are loud and scary. People think baby orangutans are very cute and often want them as pets. This is illegal and extremely bad for the baby orangutan who needs to be with his/her mother. Many of these infant orangutans are rescued and taken to care centres to be looked after and hopefully one day be released back into the jungle. Because they have lost their mothers, baby orangutans are given a human surrogate mother to take care of them. That person gives them lots of love and affection as their own orangutan mother would have done. When the babies become toddlers, they are often then looked after by men as orangutans are very strong and toddlers can be very cheeky. The men take the young orangutans out into protected areas of forest and teach them how to be wild orangutans again. Things that the human carers teach them include -

- Teaching them and encouraging them to climb and stay off the ground.
- Giving them wild fruits to eat.
- Showing them all the different types of food they can eat in the forest, e.g. termites.
- How to make a nest in which to sleep.

If a baby orangutan arrives at a care centre, it will be many years before it can be released into the forest again. Young orangutans cannot survive on their own, so they need to stay at the care centre until they graduate from wild orangutan training classes and can survive on their own in the jungle.

---

Many wonderful documentaries have been made about orangutans which are being looked after at care centres. One documentary which is currently available (2009) is called "Orangutan Diary - Taking Care of the Relatives". It contains some very interesting and entertaining vision of young orangutans learning skills from their carers, which they would have learnt from their mother ( Learning how to build a nest is especially entertaining).

If you go to the web-site listed below, you'll be able to find a synopsis (recount), of what happens in each episode of "Orangutan Diary".

[www.noga.co.il/new/pr/images/pictures8/5881.PDF](http://www.noga.co.il/new/pr/images/pictures8/5881.PDF)

# Orangutan Infants – Activity #3

Year  
Level  
6-7

How well do you remember what you have just read and discussed?

When baby orangutans' mothers are \_\_\_\_\_ and they are stolen by people to become \_\_\_\_\_, The baby orangutans will be very \_\_\_\_\_

They have only ever \_\_\_\_\_ their mothers and \_\_\_\_\_ are loud and scary. People think baby orangutans are very \_\_\_\_\_ and often want them as pets.

This is \_\_\_\_\_ and extremely bad for the baby orangutan who needs to be with his/her mother. Many of these infant orangutans are \_\_\_\_\_ and taken to Care Centres to be looked after and hopefully one day be \_\_\_\_\_ back into the jungle.

Because they have lost their mothers, baby orangutans are given a \_\_\_\_\_ surrogate mother to take care of them. That person gives them lots of love and \_\_\_\_\_ as their own orangutan mother would have done.

When the babies become \_\_\_\_\_, They are often then looked after by men as orangutans are very \_\_\_\_\_ and toddlers can be very \_\_\_\_\_. The men take the young orangutans out into \_\_\_\_\_ areas of forest and teach them how to be \_\_\_\_\_ orangutans again. Things that the human carers teach them include:

- Teaching them and encouraging them to \_\_\_\_\_ and stay off the \_\_\_\_\_
- Giving them \_\_\_\_\_ fruits to eat.
- Showing them all the different \_\_\_\_\_ of food they can eat in the forest. eg. Termites
- How to make a \_\_\_\_\_ in which to sleep.

If a baby orangutan arrives at a Care \_\_\_\_\_, it will be many years before it can be \_\_\_\_\_ into the forest again. Young orangutans cannot \_\_\_\_\_ on their own, so they need to stay at the Care Centre until they \_\_\_\_\_ from wild orangutan \_\_\_\_\_ classes and can survive on their own in the jungle.

Using the information above, create and write down three questions (You must fully understand and know where to find the answers).

---

---

---

Find a partner. See if you can correctly answer each other's questions.



## Orangutans Learn to Trade Favors

Articles about orangutans often feature in newspaper articles and on the internet (This one was downloaded in December 2008). It is extremely interesting and would be well suited to discussions about animal and human intelligence ("Calculated reciprocity" is especially interesting).

*It's not just humans that calculate about giving; orangutans do that too*

Valerie Dufour



*Orangutans from Sumatra and Borneo are among our closest relatives*

## Orangutans can help each other get food by trading tokens, scientists have discovered - but only if the help goes in both directions.

Researchers from the University of St Andrews found orangutans could learn the value of tokens and trade them, helping each other win bananas.

An article in Biology Letters, claims it is the first evidence of "calculated reciprocity" in non-human primates.

Gorillas and chimpanzees were much less willing to co-operate, they report.

Two orangutans - Bim and Dok - who live in Leipzig Zoo, Germany, were especially good at helping each other.

Initially, they were given several sets of tokens, and learned the value of the different types.

An animal could exchange one type for bananas for itself, another type could be used to gain bananas for a partner, and a third had no value.

Initially, Dok, the female, was especially good at swapping tokens to get bananas for Bim, the male. Sometimes Bim would point at the tokens to encourage her.

But he was less interested in trading tokens that would win bananas for her.

As she became less willing to help him out, Bim responded by trading more and more, until their efforts were more or less equal.

"So we have a calculation behind the giving," explained Valerie Dufour who led the research at the Scottish university. "If you don't give me enough, then I don't give you either; but if you give me enough, OK, then I buy your co-operation, and I secure it by giving too."

Many animals exchange goods and services with each other; the grooming of primates is an obvious example.

But the researchers say there has been no experimental evidence before of "calculated reciprocity", where animals adapt their own behaviour in response to how another is helping them.

"It's not just humans that calculate about giving, and it's not just humans who expect to be given something in return when they are co-operative," Dr Dufour told BBC News.

"Orangutans do that too."

However, other apes - chimpanzees, gorillas and bonobos - were less able or willing to play the game. <http://news.bbc.co.uk/2/hi/science/nature/7797776.stm>