

# Fantastic Frogs and Terrible Toads

A Teacher Resource Kit

Fantastic Frogs and Terrible Toads Teacher Resource Kit  
Produced by Leslie Beissel and Yvonne Cole, 2005

## Preface

Welcome to Fantastic Frogs and Terrible Toads: A Teacher Resource Kit. This resource has been developed by Leslie Beissel and Yvonne Cole as part of their requisite coursework for the Graduate Diploma in Secondary Education at Charles Darwin University.

The idea for developing the resource stemmed from a need identified by FrogwatchNT for teachers to be adequately equipped to impart information about the importance of frogs and the environment and to prepare students for the arrival of Cane Toads. Given that such a large amount of information about frogs and Cane Toads already exists, the focus of the kit is to provide activities, worksheets and handouts to assist a teacher deliver a unit of work on frogs and Cane Toads.

The driving force behind developing this resource was our passion for native frogs coupled with a personal interest in caring for the environment and our disquiet over how the arrival of Cane Toads in the Top End could be addressed. We also relied on our knowledge and experience gained from many years employment in the fields of science, natural resource management and environmental education.

The development of this kit would not have been possible without the support and advice of several experts in the field. We would like to personally acknowledge the following people:

- Louise Fogg (Department of Employment, Education and Training)
- Jan Herman (FrogwatchNT)
- Suzanne Hyde (Nhulunbuy Christian School)
- Graeme Sawyer (FrogwatchNT)
- Kate Smith (Museum and Art Gallery of the Northern Territory)
- Iolanthe Sutton (Charles Darwin University)
- Teaching Staff at Marrara Christian School

We hope that by providing this resource teachers are encouraged to discuss the arrival of Cane Toads with students, promote the importance of being actively involved with community organisation such as FrogwatchNT and help young people become responsible global citizens.

Leslie Beissel and Yvonne Cole

# 1.0 Fantastic Frogs

This section provides general information about frogs, introducing students to some of the features of frogs. This section covers the life cycle and diet of frogs, as well as some of the features that are unique to amphibians.

## Outcomes:

- know what an amphibian is and how it is different from other types of animals
- identify general physical characteristics of frogs
- recognize the life cycle of frogs
- gain an understanding of the diet of frogs

## Classroom activities:

### 1.1 Frog features

The aim of this activity is to introduce students to some specific features of frogs. The activity sheet is designed for use in upper primary. Students need to read a series of descriptions of a 'frog features' and then match the description with the name of the feature.

### 1.2 Frog Facts

By completing a series of addition, subtraction, multiplication and division calculations, students can fill in the missing words of four 'Frog Facts'. Given the level of mathematics required, this sheet is suitable only for upper primary.

Answers: 1. *Toads*; 2. *Water and Tadpoles*; 3. *Toads and Cane Toad*; 4. *Breathe, Wet and Live*.

### 1.3 Frog Life Cycle Diagram

This activity provides a basic outline of the different stages of the life cycle of frogs. Students can write (or cut and paste) the label for each stage of the life cycle into the correct box after the teacher has explained the life cycle using other resources.

### 1.4 Life Cycle of Frogs

This activity sheet can be used by all primary school children. This table with the different stages of the frog life cycle can be filled in with reference books or by observation with collected eggs/ tadpoles and watching them grow. Lower primary school children could draw a picture in the box instead of writing about the different stages.

### 1.5 Life Cycle Word Search

Students search words relating to the life cycle of frogs. Left over letters placed at the bottom of the page provide students with the word 'Metamorphosis'.

### 1.6 Frog Food

This activity is designed to help students know the different types of food frogs eat. Designed for lower primary, students draw or write some of the different creatures frogs might eat.

### 1.7 Frog Food Word Search

This word search will provide students with a good understanding of the diet of frogs. When all the words have been found, left over letters complete a statement about what frogs eat. This activity could be completed after a lesson using reference books to research what frog eat.

Answer: '*Frogs eat any live food they can swallow*'.

# 1.1 Frog Features

Most people know that frogs are plumpish with broad heads, no tails and have long, strong back legs. Frogs have many more amazing features, some of which are listed below.

See if you can match each description on the left with the name of the feature on the right.

Frogs are different from other vertebrates in that they are members of the zoological class called *Amphibia*. This means they spend part of their life under water, breathing through their gills, and part on land, breathing with lungs.

Some frogs have adhesive discs on the tips of their fingers and toes which help them climb. On smooth surfaces these act like suction cups.

Frogs absorb most of the moisture they need through their skin. Frogs also rely on getting extra oxygen (in addition to what they get from their lungs) from water by absorbing it through their skin.

Frogs go slimy when they secrete mucus to keep their skin moist. Even with slimy skin, frogs need to stay wet. If there is no water to jump into, frogs can get moisture from dew or burrow underground.

Frogs can launch themselves over 20 times their own length using their big strong legs.

Frogs that burrow into the sand to keep moist in the heat have stubby claw-like fingers that are adapted to digging.

Some frogs have webbing between their toes that make it easier for them to move through water.

**Slimy Skin**

**Earthmovers**

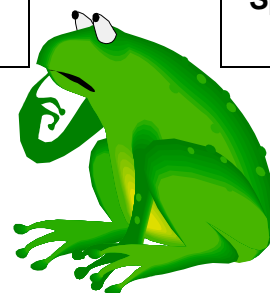
**Leap Frog**

**Feet for swimming**

**Sticky Pads for Climbing**

**Amphibians**

**Special Skin**



## 1.2 Frog Facts

Solve the maths problems at the below and use the solutions to break the code and work out the missing words for each frog fact.

$2 + 2 = W$	$11 - 4 = N$	$8 + 3 = P$	$1 - 0 = E$
$26 \div 2 = B$	$4 \times 4 = A$	$30 \div 6 = D$	$110 \div 11 = V$
$7 + 8 = S$	$21 - 19 = H$	$56 \div 7 = T$	$7 - 4 = I$
$36 \div 4 = C$	$3 \times 4 = L$	$9 + 5 = O$	$42 \div 7 = R$

Frogs and  $\frac{\quad}{8}$   $\frac{\quad}{14}$   $\frac{\quad}{16}$   $\frac{\quad}{5}$   $\frac{\quad}{15}$  belong to a group of animals called amphibians.

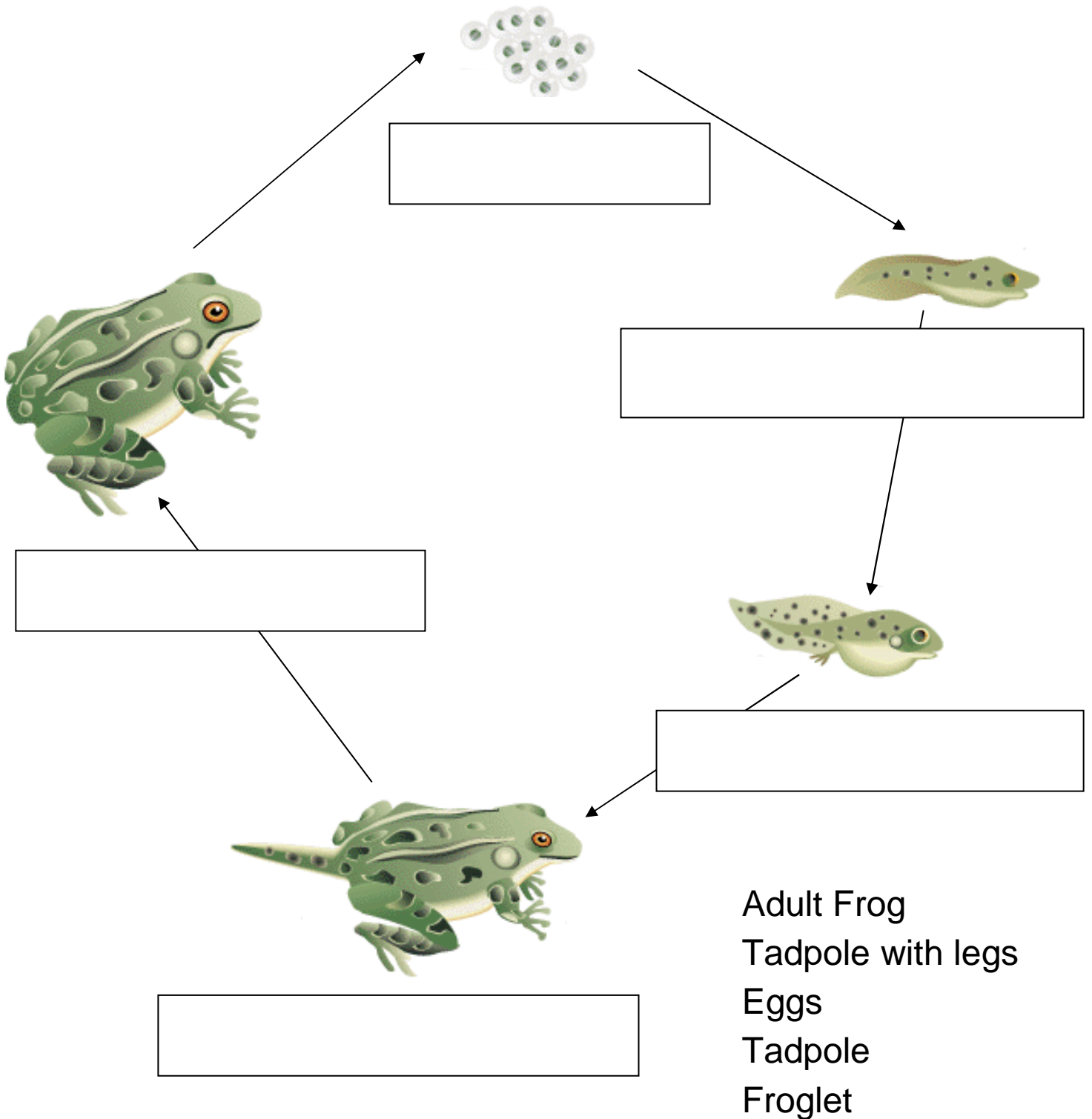
Frogs are different to other animals as they need to spend part of their life in  $\frac{\quad}{4}$   $\frac{\quad}{16}$   $\frac{\quad}{8}$   $\frac{\quad}{1}$   $\frac{\quad}{6}$  especially when they are  $\frac{\quad}{8}$   $\frac{\quad}{16}$   $\frac{\quad}{5}$   $\frac{\quad}{11}$   $\frac{\quad}{14}$   $\frac{\quad}{12}$   $\frac{\quad}{1}$   $\frac{\quad}{15}$

In Australia, there are no native  $\frac{\quad}{8}$   $\frac{\quad}{14}$   $\frac{\quad}{16}$   $\frac{\quad}{5}$   $\frac{\quad}{15}$ . The only species found here is the  $\frac{\quad}{9}$   $\frac{\quad}{16}$   $\frac{\quad}{7}$   $\frac{\quad}{1}$   $\frac{\quad}{8}$   $\frac{\quad}{14}$   $\frac{\quad}{16}$   $\frac{\quad}{5}$  and it was introduced from South America.

Frogs can  $\frac{\quad}{13}$   $\frac{\quad}{6}$   $\frac{\quad}{1}$   $\frac{\quad}{16}$   $\frac{\quad}{8}$   $\frac{\quad}{2}$  through their skin. Their skin needs to be  $\frac{\quad}{4}$   $\frac{\quad}{1}$   $\frac{\quad}{8}$  skin to do this so they like damp places to  $\frac{\quad}{12}$   $\frac{\quad}{3}$   $\frac{\quad}{10}$   $\frac{\quad}{1}$

# 1.3 Frog Life Cycle Diagram






Using the terms below, correctly label each stage of the Frog Life Cycle.



Frog Life Cycle images sourced from <http://images.encarta.msn.com/xrefmedia/aencmed/targets/illus/ilt/T304359A.gif>

# 1.4 Life Cycle of Frogs

Describe each stage of the frog life cycle in the table below.

	DESCRIPTION OF FROG LIFE STAGE
<b>EGGS</b> 	
<b>TADPOLES</b> 	
<b>TADPOLE WITH LEGS</b> 	
<b>FROGLET</b> 	
<b>ADULT FROG</b> 	



## 1.5 Life Cycle Word Search

Most frogs have a life cycle with two distinct stages, typically living in water as young and on land as adults.

*Find all the words listed below.*

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

LIFE  
 WATER  
 POND  
 WARM  
 WETLANDS  
 GILL  
 MATE  
 LUNG  
 EGGS  
 TADPOLE  
 FROGLET  
 HATCH  
 GROWS  
 CHANGE  
 EAT  
 TAIL

*Once you have found all the words, carefully write the left over letters in the spaces at the bottom of the page (working from left to right and top to bottom).*

— — — — —

is the name of the process a frog goes through when changing into an adult.

## 1.6 Frog Food

The frog below is hungry and is ready to catch some food.

Draw three different creatures the frog would eat.



## 1.7 Frog Food Word Search

All frogs eat other animals. None eats plants. Frogs usually eat insects and other arthropods but some frogs will eat animals with backbones, such as other frogs, lizards and small mammals. A few frogs even eat bats which they catch from the water as bats fly low to drink. Other frogs eat snakes!

Find all the words listed below and carefully write the left over letters in the spaces at the bottom of the page to find out an interesting fact about frog food!

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

BEETLE  
BIRD  
BUG  
CRICKET  
DRAGONFLY  
EARTHWORM  
INSECTS  
MICE  
MOTH  
SLUG  
SNAIL  
SPIDER



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