

Croc!

LOST GIANTS TO LIVING LEGENDS



Secondary school self-guided worksheet

How to use this guide

Explore the exhibition → Find the displays → Complete the activities



Answer questions



Challenge yourself



Support tasks



Back at school

Name: _____ School: _____

Dive in

Before you enter the exhibition, write down the **first three words** that come to mind when you think of crocodiles.

1. _____
2. _____
3. _____

PRESENTING PARTNERS

MU
SEA
UM | AUSTRALIAN NATIONAL
MARITIME MUSEUM

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QUEENSLAND
MUSEUM |  Queensland
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MUSEUM
AND ART
GALLERY
NORTHERN
TERRITORY
GOVERNMENT |  NORTHERN
TERRITORY
GOVERNMENT

This exhibition is a collaboration between the Australian National Maritime Museum, Queensland Museum and Museum and Art Gallery of the Northern Territory.



Activity 1: *Lost giants & Today's crocs*

The theory of evolution by natural selection explains how species change over time. Individual organisms with characteristics that are most suited to their environment, are more likely to survive and reproduce. Over time, this leads to the species changing or evolving.

When a group of organisms is separated from the rest of their species, they may develop different traits which help survival. This is called isolation. Over time, this group of organisms may evolve into a new species (a process called speciation).

1. Using the displays in *Lost giants* and *Today's crocs*, complete the table below.

	Section: <i>Lost giants</i>	Section: <i>Today's crocs</i>	
	<i>Isisfordia duncani</i>	Saltie	Dwarf Caiman
Size			
Location			
Diet			

2. Using the display and the information in your table above, compare *Isisfordia duncani* (an ancient croc) with a modern croc species (either a Saltie OR a Dwarf Caiman). How are they similar? How are they different?

Modern croc _____

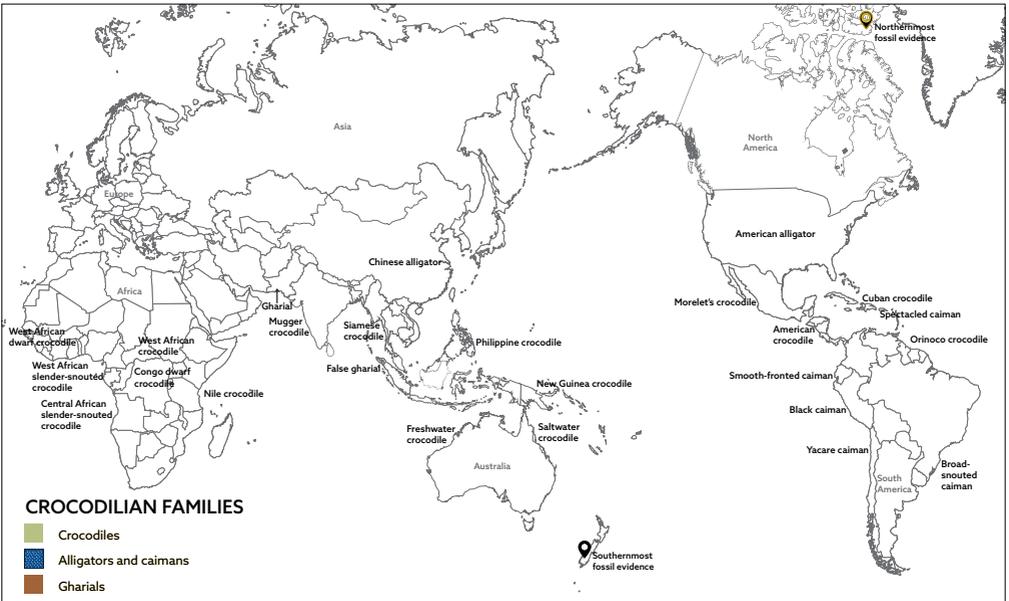
Similarities

Differences

The similarities suggest that *Isisfordia duncani* (an ancient croc) and modern crocs species share a common ancestor. A common ancestor is the ancestral organism from which two or more species (or lineages) have descended and evolved.

- Find the croc distribution map on display.
Fill in the location of the different crocodilian families below.

Geographical distribution of crocodilian families



- Using the map, displays and your knowledge of the theory of evolution, explain the environmental factors which contributed to this distribution and species diversity.



- The geographical distribution of crocodilians is predominantly around the equator (ie the middle of the world). Why do you think crocodilians are mostly found around this area? Consider climate in your answer.



Activity 2: Global connections

Explore the connections between humans and crocodiles across time and cultures. Find the displays about each culture to answer the questions.

Egypt 1. Who is Sobek?

2. Why did the Egyptians mummify crocodiles and bury them in their tombs?

Roman 3. What has this crocodile skin been made into?
Where was it found?

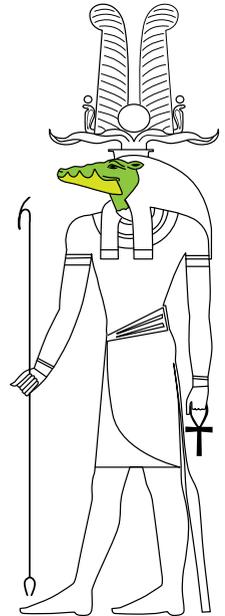
4. Why did Roman soldiers wear this?

5. Using your previous responses, what do you think crocodiles represented in ancient Roman society?

China 6. Why are crocodiles important in feng shui?
What do crocodiles symbolise?

India 7. Who is Ganga in Hindu mythology?

8. What is the name of the part-crocodile beast Ganga is riding?



Historical analysis

Using the displays and your responses to the previous questions, select one of the historical objects. What value did crocodiles have in this society? How does the object demonstrate this society's attitude towards crocodiles?



Activity 3: Our two

Find the 'bite force' interactive to complete the questions below.

1. The bite force of a saltie is 16,460 Newtons and the bite force of a human is 890 Newtons.

What is the human bite force as a percentage of a saltie's bite force?
Answer to one decimal place and remember to show your working.

2. If the bite force of a saltie is 16,460 Newtons, how many freshies would you need to equal the bite force of a saltie? Round up to the nearest whole number.



3. A group of five creatures has a combined bite force of 22,900. There is one saltie (S) in the group. F is freshie. How many freshies are in this group? What creature is X ?

Remember to show your working.

$$S + 3F + X = 22,900$$

16,460 Newtons! Yum!



Photo credit: Queensland Museum, Gary Cranitch



Activity 4: Kinship and connection & Lore and law

Imagine you are curating an art exhibition on First Nations' cultural connections to crocodiles.

Explore this section of the exhibition, then select one artwork in the First Nations gallery and write the object label for this work.

Name of the artwork: _____

Artist: _____

What Country, language group or place is this work connected to? _____

Date: _____

Materials: _____

How does this artwork depict First Nations connection to Country?



Find the Sea Rights flag.

The colours and symbols of this flag represent the Yolŋu people's deep connection to their ancestral waters and territories.

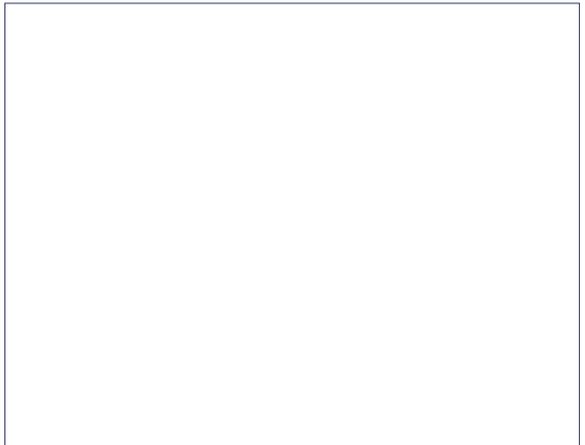
Use the Sea Rights flag as inspiration to draw a flag for your school.



Image credit: Australian National Maritime Museum

Make sure the flag represents your school. Consider First Nations Country, the local geography, your community and what makes your school unique.

Use colours, shapes, patterns and symbols to represent your school community.

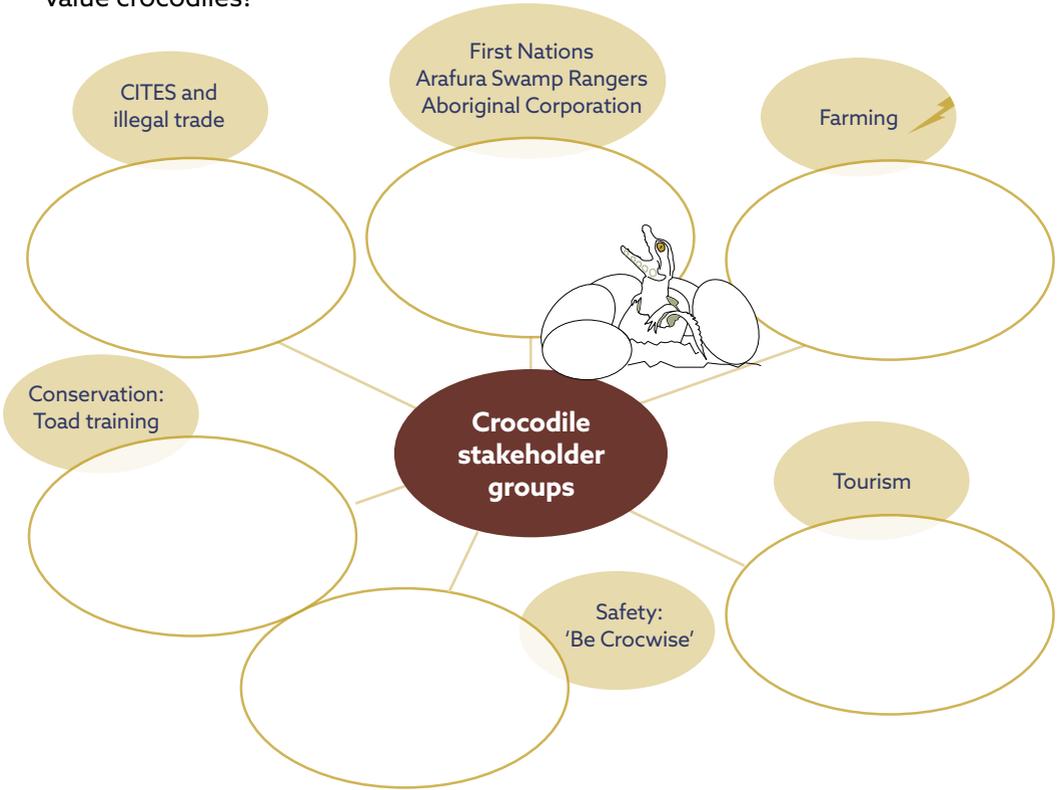




Activity 5: *Living with crocs*

Australians and crocodiles have lived side by side for thousands of years. Yet, crocodiles are very contentious. Different stakeholder groups have vastly different relationships with crocodiles.

Use the displays to answer the question: How does this stakeholder group value crocodiles?



Select two stakeholder groups from the mind map activity. Do the viewpoints of these two groups support or contradict one another?



Task 1: Research and develop a crocodile management strategy for living alongside crocs in a safe, sustainable and culturally respectful way.

Task 2: Organise a class debate and discuss this topic:
When a croc attack occurs, who is at fault?

When a crocodile attacks a human, it can be considered a threat to public safety and killed. However, a crocodile attack generally occurs within a crocodile's natural habitat.



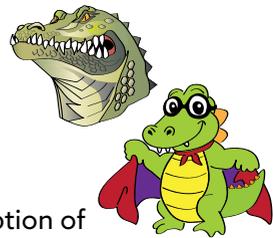
Activity 6: Popular crocs

Crocodiles are captivating. Pop culture is riddled with crocs! They have been represented as heroes and villains across film, literature, news, art, fashion and more.

Compare and contrast the representations of crocodiles in pop culture. Explore this section of the exhibition and select one example of crocs in art, film and fashion to complete the table.

	Art	Film	Fashion
<p>How are crocodiles represented?</p> <p>Record three adjectives (describing words)</p>			
<p>What techniques have been used to depict crocodiles in this way?</p> <p>Consider camera angles, colours, shots, symbolism, facial expressions, costumes, etc.</p>			

How are these representations of crocodiles similar?
How are they different?



Dive out

Now that you have explored the exhibition, write three words you would use to describe crocodiles.

1. _____
2. _____
3. _____

Has your perception of crocodiles changed? How?

What is one thing that surprised you about crocodiles?
