

Student Name: _____

Year 9 Science
**Structure, Function
& Adaptation**

Student Workbook



www.billabongsanctuary.com.au

WELCOME TO YOUR OUTDOOR CLASSROOM!

As you visit the following animals listen to what the ranger is telling you. Complete the tables on the following pages and write down important facts and specializations under each of the features. When we're finished we should be able to see some similarities and differences between the animals and also understand some of their adaptations and constraints.

Task 1

Below we have given you some space to draw. You might like to draw a picture of each animal that we visit and label the important structures that it possesses, or you can choose a special feature of the animal and draw that. Describe its function to that animal and its usefulness in its environment.

<p style="text-align: center;">CROCODILE</p>	<p style="text-align: center;">CASSOWARY</p>
<p style="text-align: center;">PYTHON</p>	<p style="text-align: center;">COMMON WOMBAT</p>

Task 2

On the following four pages, describe the various ADAPTATIONS each animal possesses.



ESTUARINE CROCODILE

Genus: *Crocodylus* Species: *porosus*

External Features

EYES	TONGUE	LIMBS	TAIL

Internal Features

RESPIRATION	SKULL	TEETH	LOCOMOTION

CASSOWARY

Genus: *Casuarius* Species: *casuarius*

External Features

CASQUE	FEATHERS	LIMBS	COLOUR

Internal Features

CASQUE	STOMACH	BONES	REPRODUCTION



BLACK HEADED PYTHON

Genus: *Aspidites* Species: *melanocephalus*

External Features

EYES	TONGUE	LIMBS	TAIL

Internal Features

RESPIRATION	SKULL	TEETH	LOCOMOTION

COMMON WOMBAT

Genus: *Vombatus* species: *ursinus*



External Features

EYES	TONGUE	LIMBS	TAIL

Internal Features

RESPIRATION	SKULL	TEETH	LOCOMOTION

Task 3

While you are walking around the park take special note of the bird and mammal enclosures. Have a look at what we have done for the animal in terms of providing shelter, perches and landscaping. Imagine that you are now a ranger at Billabong Sanctuary and have been given permission to improve or re-design an enclosure of your choice.

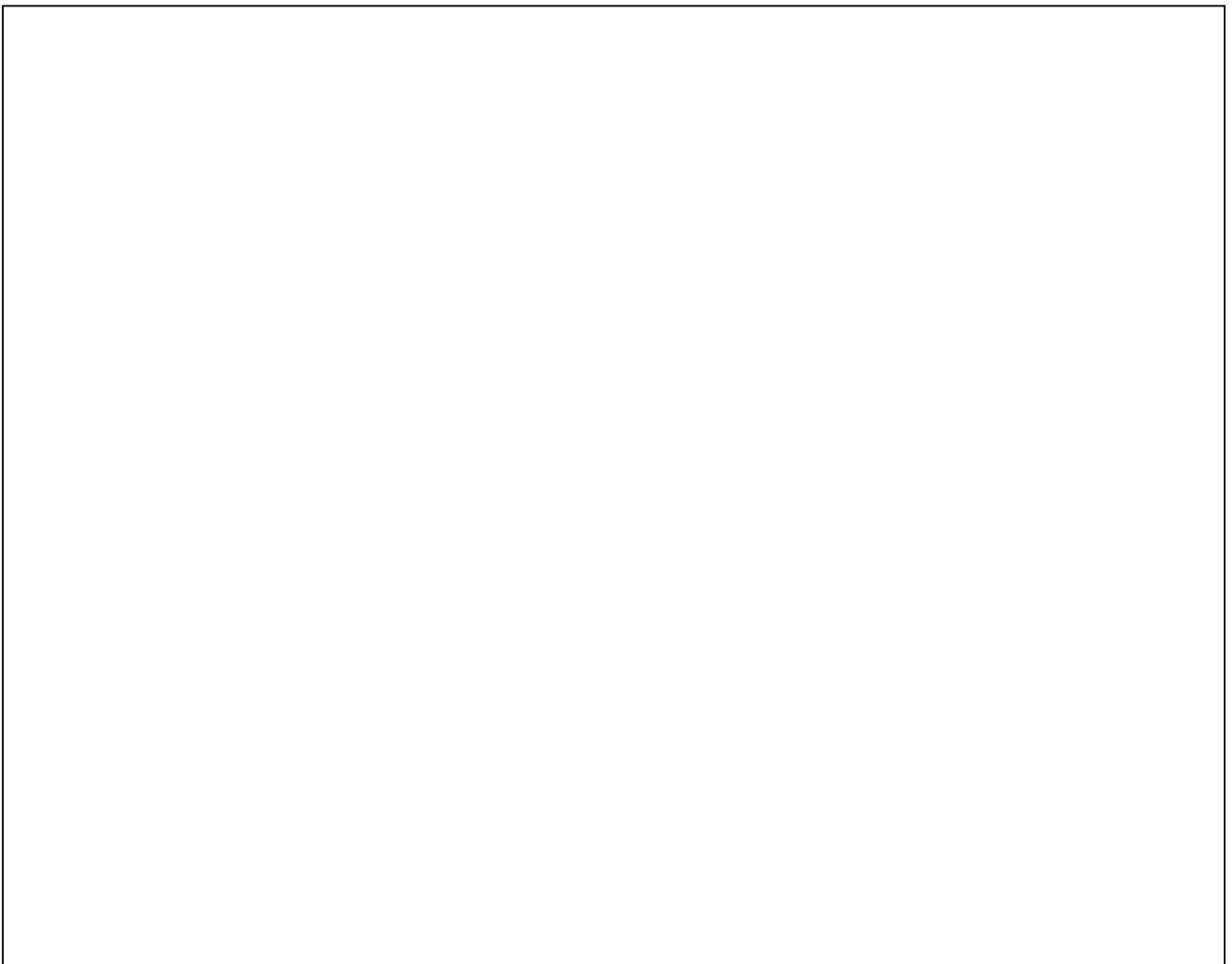
Some points to remember:

- People visit the park to see animals, so an animal's shelter ideally should allow for viewing.
- The enclosure must be secure and safe for both the animals and visitors.
- The enclosure should also be attractive.
- Available space may limit size.
- Initial construction costs.
- On-going maintenance and materials.

Plus!...

- How many animals do you want to house, a pair or a colony?
- How fast will they reproduce? Is there room for any offspring or will they have to be removed?

It's your creation so use your imagination but keep in mind that the boss might mind if you spend all his money!!!

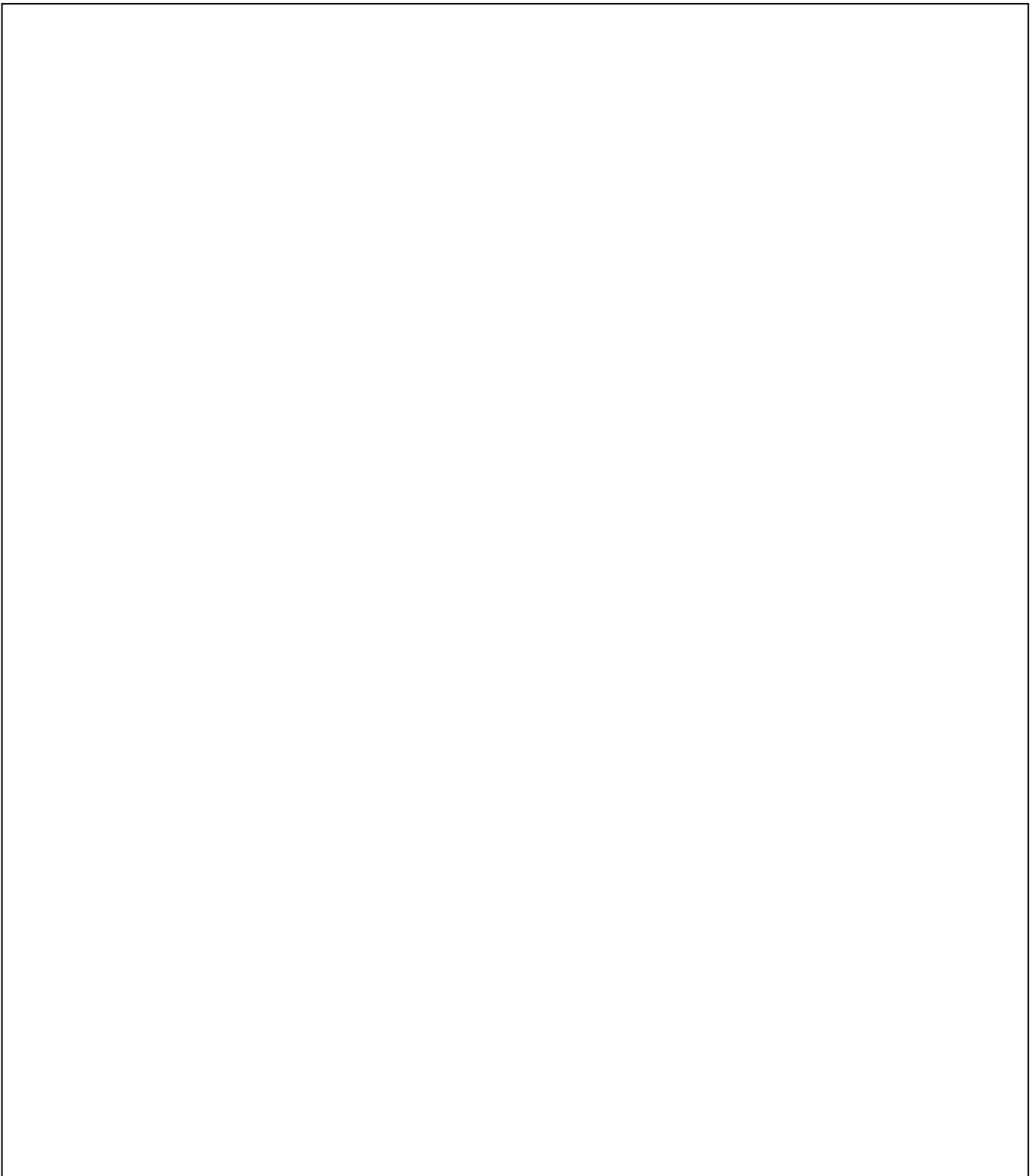


Task 4

Choose an animal from the park. Describe the climate, environment and the adaptations it has to make its life easier.

One million years from now it lives in the same area but the habitat has changed. Decide on a habitat change and re-adapt your animal (eg. it now snows in winter in the tropics, so it may need to hibernate; savannah grassland habitat may now be swamp or permanently underwater).

If it's easier you can draw your beast and label it. Remember to describe the environment and climate it now lives in.

A large, empty rectangular box with a thin black border, intended for a student to draw an animal and its new habitat. The box is currently blank.