

# ANSWER GUIDE: Threatened three

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**Term 2, 2020**

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# Part 1: Western Swamp Tortoise

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Activity title	Answers
Threatened species	<div> <div> <p>Conservation status</p> <p>Extinct</p> <p>Extinct in the Wild</p> <p>Critically Endangered</p> <p>Endangered</p> <p>Vulnerable</p> <p>Near Threatened</p> <p>Least Concern</p> </div> <div> <p>Description</p> <p>population is abundant and widespread</p> <p>likely to qualify for a threatened category in the near future</p> <p>there is no reasonable doubt that the last individual has died</p> <p>the only living individuals are in captivity (eg. in a zoo)</p> <p>facing a high risk of extinction in the wild</p> <p>facing an extremely high risk of extinction in the wild</p> <p>facing a very high risk of extinction in the wild</p> </div> </div>

## PAGE 2

Activity title	Answers				
Turtle or tortoise?	<p>Some possible answers:</p> <table> <tr> <th>Tortoises</th><th>Freshwater turtles</th></tr> <tr> <td> <ul style="list-style-type: none"> <li>Live on land</li> <li>Club-like legs</li> <li>Lifespan 80-150 years</li> <li>Most are herbivores</li> <li>Can hide head and legs inside shell</li> <li>Can change metabolic rate to deal with food scarcity, so do not hibernate</li> </ul> </td><td> <ul style="list-style-type: none"> <li>Thin, flat, streamlined and light shell</li> <li>Webbed feet</li> <li>Lifespan 20-40 years</li> <li>Carnivores or omnivores</li> <li>Most cannot hide head and legs inside shell</li> <li>Some avoid cold weather by hibernating until spring</li> </ul> </td></tr> </table>	Tortoises	Freshwater turtles	<ul style="list-style-type: none"> <li>Live on land</li> <li>Club-like legs</li> <li>Lifespan 80-150 years</li> <li>Most are herbivores</li> <li>Can hide head and legs inside shell</li> <li>Can change metabolic rate to deal with food scarcity, so do not hibernate</li> </ul>	<ul style="list-style-type: none"> <li>Thin, flat, streamlined and light shell</li> <li>Webbed feet</li> <li>Lifespan 20-40 years</li> <li>Carnivores or omnivores</li> <li>Most cannot hide head and legs inside shell</li> <li>Some avoid cold weather by hibernating until spring</li> </ul>
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Super shells	Plastron				
Fact finding					
Tiny turtle	Student's own answer				

Activity title	Answers										
Meaning of aestivate	A state of dormancy, similar to hibernation, but takes place in summer rather than winter.										
Tortoise truths	True, false, true, false – they are their main predators										
Threats	<p>Possible answers:</p> <table> <tr> <th>Threat</th><th>Impact</th></tr> <tr> <td>land clearing</td><td>reduces already limited habitat</td></tr> <tr> <td>use of pesticides and fertilisers</td><td>If these end up in the wetland they can impact water quality reducing the liveability for the WST and it's food sources</td></tr> <tr> <td>fire</td><td>If not aestivating tortoises or eggs aren't buried deep enough fire can kill them</td></tr> <tr> <td>fox predation</td><td>Foxes eat both the tortoises and eggs, when they are aestivating they are easy prey</td></tr> </table>	Threat	Impact	land clearing	reduces already limited habitat	use of pesticides and fertilisers	If these end up in the wetland they can impact water quality reducing the liveability for the WST and it's food sources	fire	If not aestivating tortoises or eggs aren't buried deep enough fire can kill them	fox predation	Foxes eat both the tortoises and eggs, when they are aestivating they are easy prey
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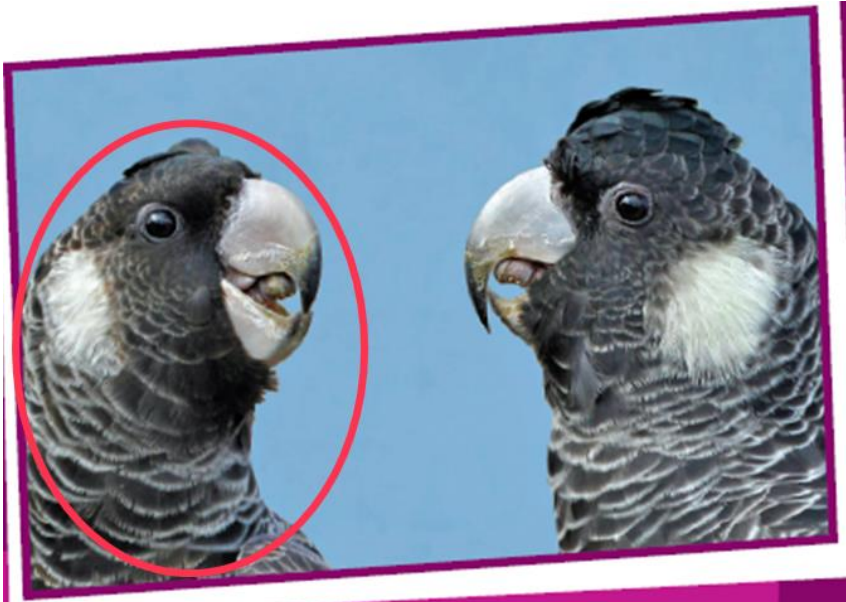
Activity title	Answers
Beautiful babies	<p>An insurance population is a backup, so if all the wild individuals die the species will not be extinct.</p> <p>Adelaide Zoo's insurance population is a backup for the backup. If anything happens to the insurance population at Perth Zoo there will still be another insurance population.</p>
Friendly fellows: Explore	<p><b>Match the activities that FoWST do to the benefit they have.</b></p>
Friendly fellows: Investigate	Student's own answer

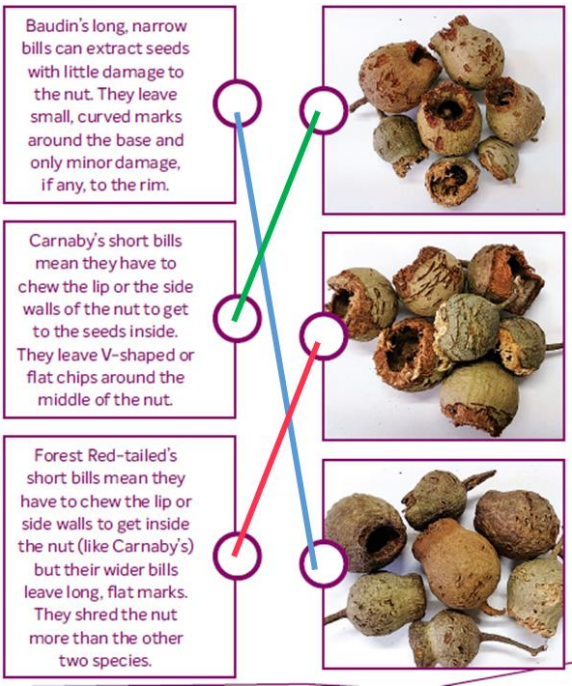
# Part 2: Carnaby’s Cockatoo

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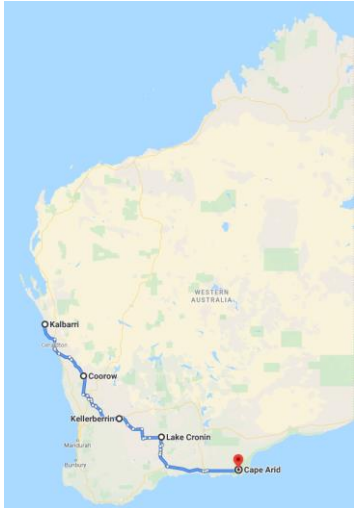
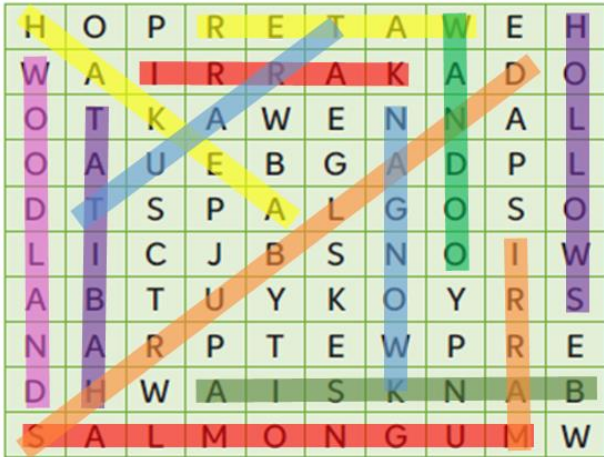
Activity title	Answers
Who’s who	RED-TAILED BLACK COCKATOO BAUDIN’S BLACK COCKATOO

PAGE 2

Activity title	Answers
Mister or sister?	<div><p>The bird on the left is an adult male female</p><p>The bird on the right is an adult male female</p></div>
Spot the difference	<div></div>

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Threats	<p>Possible answers</p> <table border="1"> <thead> <tr> <th>Threats</th><th>Solutions</th></tr> </thead> <tbody> <tr> <td>large scale land clearing</td><td> <ul style="list-style-type: none"> <li>• protect remaining habitat</li> </ul> </td></tr> <tr> <td>bushfire</td><td> <ul style="list-style-type: none"> <li>• protect remaining habitat</li> <li>• prescribed burning to reduce fire risk</li> </ul> </td></tr> <tr> <td>fragmented habitat</td><td> <ul style="list-style-type: none"> <li>• protect remaining habitat</li> <li>• revegetate areas of lost habitat</li> </ul> </td></tr> <tr> <td>road traffic</td><td> <ul style="list-style-type: none"> <li>• drivers should slow down when birds are on or by the road to give them time to move away</li> <li>• grain spills on roads should be cleaned up</li> <li>• don't dump leftover food by the roadside or throw it out the car window</li> </ul> </td></tr> <tr> <td>small population and slow breeding rate</td><td> <ul style="list-style-type: none"> <li>• protect existing habitat</li> <li>• plant more habitat</li> <li>• make and install nest boxes</li> <li>• check for nest hollows before pruning or removing trees on your property</li> </ul> </td></tr> <tr> <td>illegal shooting</td><td> <p>some farmers resort to shooting cockatoos to stop them from eating their crops as cockatoos can cause a lot of damage</p> <ul style="list-style-type: none"> <li>• farmers could try covering crops with netting – it is the best solution but can be very expensive</li> <li>• farmers could try deterrents such as CDs hanging to cause sunlight reflection, gunshot sounds being played, silhouettes of large birds of prey etc. to scare off birds</li> <li>• shooting should be reported to authorities, there is a fine for killing cockatoos</li> </ul> </td></tr> <tr> <td>illegal poaching</td><td> <ul style="list-style-type: none"> <li>• poaching should be reported to authorities, there is a fine for smuggling native wildlife</li> <li>• educate people to not want to buy native animals from other countries</li> </ul> </td></tr> </tbody> </table>	Threats	Solutions	large scale land clearing	<ul style="list-style-type: none"> <li>• protect remaining habitat</li> </ul>	bushfire	<ul style="list-style-type: none"> <li>• protect remaining habitat</li> <li>• prescribed burning to reduce fire risk</li> </ul>	fragmented habitat	<ul style="list-style-type: none"> <li>• protect remaining habitat</li> <li>• revegetate areas of lost habitat</li> </ul>	road traffic	<ul style="list-style-type: none"> <li>• drivers should slow down when birds are on or by the road to give them time to move away</li> <li>• grain spills on roads should be cleaned up</li> <li>• don't dump leftover food by the roadside or throw it out the car window</li> </ul>	small population and slow breeding rate	<ul style="list-style-type: none"> <li>• protect existing habitat</li> <li>• plant more habitat</li> <li>• make and install nest boxes</li> <li>• check for nest hollows before pruning or removing trees on your property</li> </ul>	illegal shooting	<p>some farmers resort to shooting cockatoos to stop them from eating their crops as cockatoos can cause a lot of damage</p> <ul style="list-style-type: none"> <li>• farmers could try covering crops with netting – it is the best solution but can be very expensive</li> <li>• farmers could try deterrents such as CDs hanging to cause sunlight reflection, gunshot sounds being played, silhouettes of large birds of prey etc. to scare off birds</li> <li>• shooting should be reported to authorities, there is a fine for killing cockatoos</li> </ul>	illegal poaching	<ul style="list-style-type: none"> <li>• poaching should be reported to authorities, there is a fine for smuggling native wildlife</li> <li>• educate people to not want to buy native animals from other countries</li> </ul>
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Who's there?	 <p>Baudin's long, narrow bills can extract seeds with little damage to the nut. They leave small, curved marks around the base and only minor damage, if any, to the rim.</p> <p>Carnaby's short bills mean they have to chew the lip or the side walls of the nut to get to the seeds inside. They leave V-shaped or flat chips around the middle of the nut.</p> <p>Forest Red-tailed's short bills mean they have to chew the lip or side walls to get inside the nut (like Carnaby's) but their wider bills leave long, flat marks. They shred the nut more than the other two species.</p>																



Activity title	Answers
Distribution of Carnaby's Cockatoo	
Home sweet home	
True or false?	<p>Tick to show which statements are true.</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Females reach breeding age at four years old.</li> <li><input checked="" type="checkbox"/> During breeding season (July – December) large flocks split up into pairs and family groups.</li> <li><input type="checkbox"/> They lay 1-5 eggs each breeding season.</li> <li><input checked="" type="checkbox"/> When multiple eggs are laid, they will usually only raise one chick to adulthood.</li> <li><input checked="" type="checkbox"/> While eggs are incubated by the mother for 28 days, the father brings her food.</li> <li><input checked="" type="checkbox"/> If a breeding attempt is unsuccessful, the pair will rarely use the same hollow the following year.</li> </ul> <p>They actually lay 1 – 2 eggs each season</p>
Turf wars	<p>One possible URL:</p> <p><a href="https://www.dpaw.wa.gov.au/images/plants-animals/threatened-species/carnabys_artificial_hollows_-_design_and_place_2015.pdf">https://www.dpaw.wa.gov.au/images/plants-animals/threatened-species/carnabys_artificial_hollows_-_design_and_place_2015.pdf</a></p>

Activity title	Answers
Career in caring	Student's own response

# Part 3: Numbat

## PAGE 1

Activity title	Answers
Caption this	Student's own response

## PAGE 2

Activity title	Answers												
Tasty termites	Student’s own response												
Not just a pretty face	<div><div><div>ADAPTATIONS</div><div><div>striped fur</div><div>F</div></div><div><div>eyes on sides of head</div><div>A</div></div><div><div>ears high on the head</div><div>D</div></div><div><div>sharp claws</div><div>G</div></div><div><div>sensitive nose</div><div>B</div></div><div><div>flat snout as a baby</div><div>E</div></div><div><div>long, thin tongue</div><div>C</div></div></div><div><div>HOW IT ASSISTS SURVIVAL</div><div><div>A</div><div>provide good vision of approaching predators</div></div><div><div>B</div><div>used to locate termites below the surface of the ground by smell and vibration</div></div><div><div>C</div><div>able to get into narrow cracks to catch termites</div></div><div><div>D</div><div>allow early detection of sounds made by predators</div></div><div><div>E</div><div>helps young numbats attach for suckling (drinking milk from their mother’s teat)</div></div><div><div>F</div><div>offers camouflage against woodland floor</div></div><div><div>G</div><div>make it easy to climb logs and trees to find shelter and to dig the ground to expose termites</div></div></div></div>												
Daytime is playtime	<div>Possible answers:</div> <table><tr><th></th><th>meaning</th><th>example</th></tr><tr><td>Diurnal</td><td>Active during the day</td><td>eg. Numbat</td></tr><tr><td>Nocturnal</td><td>Active at night</td><td>Chuditch</td></tr><tr><td>Crepuscular</td><td>Active at twilight (dawn and dusk)</td><td>Kangaroo</td></tr></table>		meaning	example	Diurnal	Active during the day	eg. Numbat	Nocturnal	Active at night	Chuditch	Crepuscular	Active at twilight (dawn and dusk)	Kangaroo
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Activity title	Answers									
Predators	<p>Tick the animals which prey upon numbats</p> <table><tr><td><input checked="" type="checkbox"/> goannas</td><td><input checked="" type="checkbox"/> snakes</td><td><input type="checkbox"/> rabbits</td></tr><tr><td><input checked="" type="checkbox"/> feral cats</td><td><input checked="" type="checkbox"/> birds of prey</td><td><input type="checkbox"/> galahs</td></tr><tr><td><input type="checkbox"/> kangaroos</td><td><input checked="" type="checkbox"/> foxes</td><td></td></tr></table> <p>Which of these are introduced predators?</p> <div><div>feral cats</div><div>foxes</div></div>	<input checked="" type="checkbox"/> goannas	<input checked="" type="checkbox"/> snakes	<input type="checkbox"/> rabbits	<input checked="" type="checkbox"/> feral cats	<input checked="" type="checkbox"/> birds of prey	<input type="checkbox"/> galahs	<input type="checkbox"/> kangaroos	<input checked="" type="checkbox"/> foxes	
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Numbat country	Student's own response									
Lifecycles of the small and furless	<p>Number the boxes 1-6 to put the stages of the numbat breeding cycle below in order.</p> <div><div><p><b>4</b> Young are left in nest burrow and the mother returns to feed them milk.</p><p><b>1</b> Males' sternal glands (at the top of the chest) release an oily substance which turns the fur red and has a strong smell. They rub this on logs and rocks to advertise they are looking to mate and to warn off other males.</p><p><b>6</b> They are independent and leave their mother to find their own territory by 12 months old.</p></div><div><p><b>3</b> Joeys remain attached to the teat for 6-7 months. During this time they get larger and grow fur but their eyes remain closed.</p><p><b>2</b> Mating occurs, then two weeks later underdeveloped joeys are born and must travel to the mother's teat and attach to survive. Newborns look like a grain of rice; tiny and furless.</p><p><b>5</b> At 8-9 months old, young start to leave the burrow. Their flat snouts become pointed to help them forage for termites and their eyes open.</p></div></div>									
Banded babies	Words in order: hollow, overnight, monitor, aerial, information, roam, breeding, young, female, tracking									

Activity title	Answers
All in a day's work	Student's own response