ANSWER GUIDE

Term 2, 2022

Part 1: Island life

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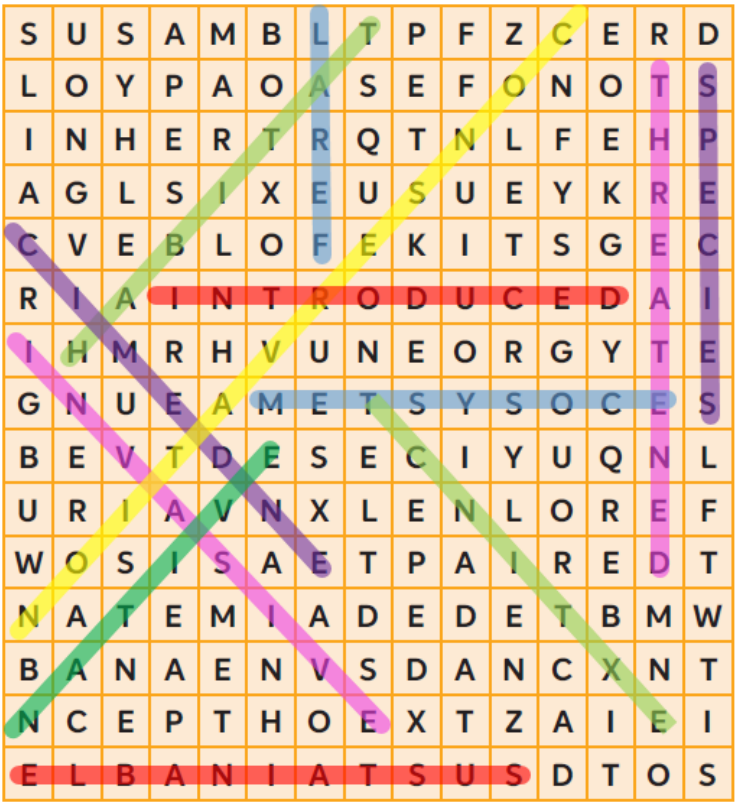
Activity title	Answers
Biodiversity buzzwords	
Biodiversity basics	**Many** living organisms, but **few** different types = **low** biodiversity **Many** living organisms, and **many** different types = **high** biodiversity **Few** living organisms, and **few** different types = **low** biodiversity **Few** living organisms, but **many** different types = **high** biodiversity

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Activity title	Answers
Isolated continent	birds – they are able to fly between Australia and other landmasses
Biodiversity brainstorm	student's own response

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Activity title	Answers
Living or non-living?	student's own response possible answers: living: bird, tree, lizard; non-living: rock, water, cloud

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Activity title	Answers
WA wildlife	true true false – there are hundreds of thousands false – there are over 1600 true false true
Colour me in	plants: Marri, Grass tree, Kangaroo Paw, Banksia animals: Fairy Wren, Carnaby's Cockatoo, Western Brush Wallaby, Bush Curlew, Dibbler, Numbat, Western Swamp tortoise, White-bellied frog,

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Activity title	Answers
Who am I?	Quokka, Perentie, Black Swan, Motorbike Frog, Little Penguin, Ghost Bat
Top 10	student's own response

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Activity title	Answers
Animal Fact File	student's choice of animals with research to confirm answers

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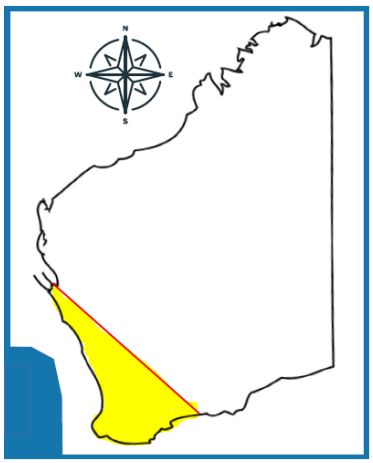
Activity title	Answers
Isolated oasis	Nearly **90**% of the eucalyptus woodlands have been cleared. More than half of the **6759** identified plant species are endemic. 12 of the **280** native bird species are endemic 12 of the approximately **60** native mammal species are endemic, **175** reptile species are found here Nearly two thirds of the **30** amphibians here are endemic.
Evaluate	student's own response consider that if we don't know about these areas we might lose species before we realise they need protection
Explore	

<table>
<tr><th>Activity title</th><th>Answers</th></tr>
<tr><td>Scrambled Species</td><td>Gilbert's Potoroo, Critically Endangered
Turtle Frog, Least Concern
Red Tingle Tree, Near Threatened
Australian Pitcher Plant, Vulnerable
Woylie, Critically Endangered</td></tr>
<tr><td>Investigate</td><td>student's choice between Gilbert's Potoroo and Woylie

<table>
<tr><td colspan="2">Species: Gilbert's Potoroo</td></tr>
<tr><th>Threats</th><th>What is being done</th></tr>
<tr><td>• wildfire
• introduced predators
• dieback (plant disease which destroys habitat and food sources)
• lack of genetic diversity
• climate change
• gaps in human knowledge about their ecology, habitat requirements and fertility</td><td>• establishing backup populations on islands
• implementing fire management strategies
• controlling feral predators
• monitoring populations

Gilbert's Potoroo Action Group is a volunteer community group which work to raise public awareness about the plight of this species, assist research and recovery programs, and fundraise to pay for these programs.</td></tr>
</table>

<table>
<tr><td colspan="2">Species: Woylie</td></tr>
<tr><th>Threats</th><th>What is being done</th></tr>
<tr><td>• Historical habitat clearing for agriculture
• ongoing habitat loss and fragmentation
• predation by feral cats and foxes
• disease and stress</td><td>• removed from threatened species list in 1996 due to successful conservation programs
• a dramatic decline in numbers from just three years later saw them re-listed in 2008
• verifying the causes of the declining population
• minimise fox and feral cat predation
• establish back up populations in other areas (translocation)
• public awareness about the plight of this species</td></tr>
</table>
</td></tr>
</table>

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Activity title	Answers
Home is where the habitat is	student's own response
Designer homes	student's choice of animals with logical wish list items for the species' chosen
Innovate	student's own response
Evaluate	student's own response possible answers: frogs, turtles, insects

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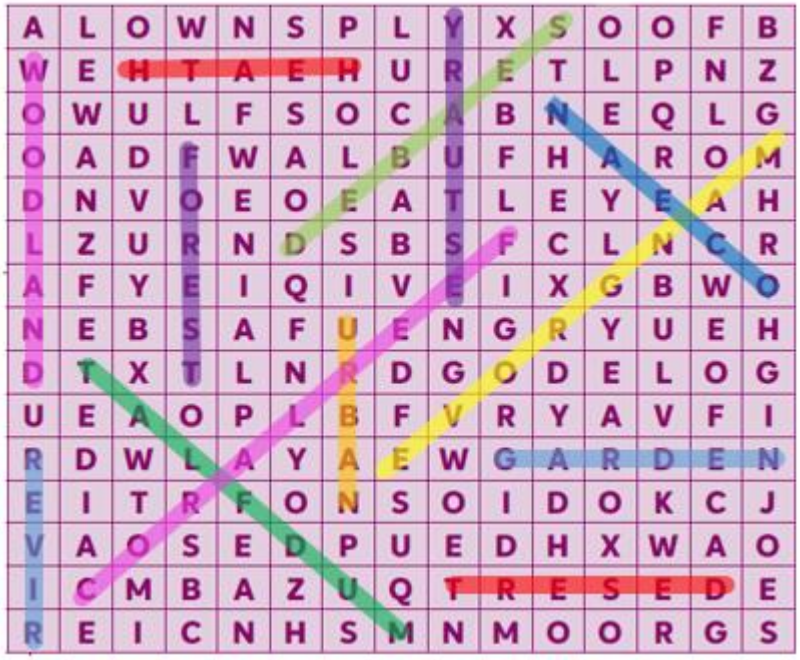
Activity title	Answers
Habitats in WA	Top left to bottom right: urban, desert, woodland, wetland, mangrove, forest
Habitat diversity	

Activity title	Answers
A picture is worth a thousand words	
Food is life	An animal that has no natural predators is considered to be at the top of its food chain. For example, Orcas (Killer Whales) are the top of their food chain, they are predators who eat other animals but no animal hunts and eats Orcas.

<table>
<tr><th>Activity title</th><th>Answers</th></tr>
<tr><td>Functional feeding</td><td>producers
consumers
decomposers</td></tr>
<tr><td>Wetlands food web</td><td>arrows go from the first column to point to each species listed in the second column
<table>
<tr><th>What is eaten</th><th>Who eats it</th></tr>
<tr><td>Pond weed and algae</td><td>Western Pygmy Perch
Black Swan
Mosquito larvae
Tadpoles</td></tr>
<tr><td>Moaning Frog</td><td>Musk Duck
Oblong Turtle
Swamp Harrier
Tiger Snake</td></tr>
<tr><td>Little Pied Cormorant</td><td>Swamp Harrier
Tiger Snake</td></tr>
<tr><td>Mosquito larvae</td><td>Musk Duck
Oblong Turtle
Western Pygmy Perch
Dragonfly nymph
Moaning Frog
Little Pied Cormorant</td></tr>
<tr><td>Musk Duck</td><td>Tiger Snake
Swamp Harrier</td></tr>
<tr><td>Oblong Turtle</td><td>Swamp Harrier</td></tr>
<tr><td>Tadpoles</td><td>Tiger Snake
Little Pied Cormorant
Musk Duck
Oblong Turtle</td></tr>
<tr><td>Western Pygmy Perch</td><td>Swamp Harrier
Tiger Snake
Little Pied Cormorant
Musk Duck
Oblong Turtle</td></tr>
<tr><td>Swamp Harrier</td><td>none</td></tr>
<tr><td>Dragonfly nymph</td><td>Moaning Frog
Little Pied Cormorant
Musk Duck
Oblong Turtle
Western Pygmy Perch</td></tr>
<tr><td>Black Swan</td><td>none</td></tr>
<tr><td>Tiger Snake</td><td>Swamp Harrier</td></tr>
</table></td></tr>
<tr><td>Connected</td><td>C
D
B
A</td></tr>
</table>

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Activity title	Answers
Extinctions over time: Explore	European settlement
Extinctions over time: Evaluate	student's own response possible answers: humans using more natural resources, introducing non-native species, clearing areas of habitat to make farms and housing
Gone but nor forgotten	Thylacine
Threatened species	C D F G E B A
S.O.S.	All except for: look cute, foot size, colour, fewer tourists

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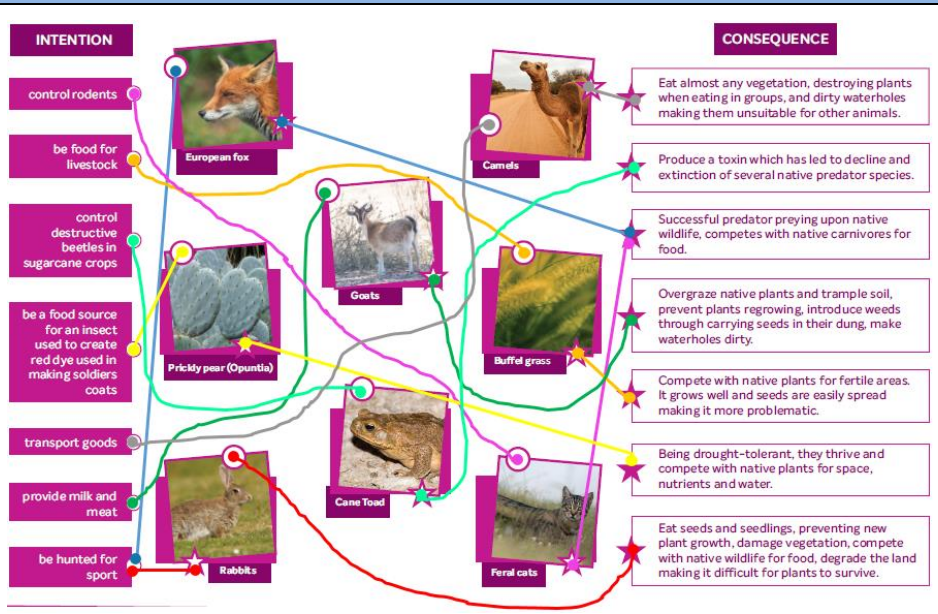
Activity title	Answers
Breed for release	ABC B C A ABC B
Sanctuaries saving species: Explore	to move from one place to another
Sanctuaries saving species: Evaluate	student's own response
Giving frogs a fighting chance	they need to know how to catch their own food once released
What's on the menu?	Top left to bottom right: Western Swamp tortoise, Frogs, Dibbler, Numbat

Activity title	Answers
Introduced species	
Evaluate	student's own response

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<table>
<tr><th>Activity title</th><th>Answers</th></tr>
<tr><td>Does it belong: Explore</td><td>Fox – Introduced species – non-native
Red Kangaroo – Native to WA
Magpie – Native to WA
Numbat – Endemic
Rainbow Lorikeet – Introduced species – native elsewhere in Australia
Western Swamp Tortoise – Endemic
Laughing Kookaburra – Introduced species – native elsewhere in Australia</td></tr>
<tr><td>Does it belong: Investigate</td><td>Student’s choice of Rainbow Lorikeet or Laughing Kookaburra
<table>
<tr><td>Common name</td><td>Rainbow Lorikeet</td></tr>
<tr><td>When and why introduced to WA</td><td>1960s, a small number were either released or escaped into the wild in WA and successfully bred.
Native to northern and eastern Australia</td></tr>
<tr><td>Do they cause any problems in WA?</td><td>Compete with native birds for nest hollows which threatens the survival of natives with declining populations such as Red-capped parrot, Western Rosella and Australian Ringneck.
Black cockatoos compete for food with Rainbow Lorikeets and have to compete for nest hollows with displaced native birds.
Damage private and commercial fruit crops.
They are a declared pest species</td></tr>
</table>
<table>
<tr><td>Common name</td><td>Laughing Kookaburra</td></tr>
<tr><td>When and why introduced to WA</td><td>Approx. 1897, introduced to control snake numbers (by eating them).
Native to Victoria and most of eastern Australia.
Were introduced to south-west WA and Tasmania</td></tr>
<tr><td>Do they cause any problems in WA?</td><td>Although successful at controlling snake numbers they also prey upon other native species.
They are not considered to be a pest species</td></tr>
</table></td></tr>
<tr><td>Who’s tracks</td><td>Dingo</td></tr>
<tr><td>Evaluate</td><td>student’s own response</td></tr>
</table>

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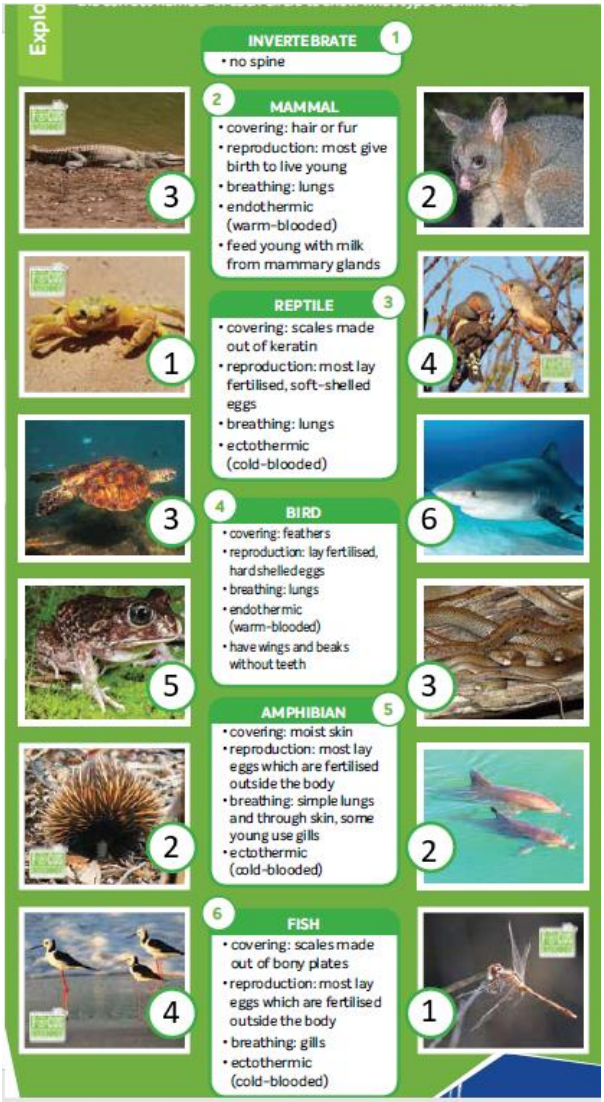
Activity title	Answers
Sorting species	student’s own response
Classifying creatures	answers from video: size, shape, diet, habitat, type of babies other possible answers: covering (fur, scales, feathers etc.), limbs (arms, legs, tail, fins etc.), method of movement (walk, crawl, fly, swim etc.)
Flora or fauna?	Possible answers: animals must eat to survive, whereas plants are able to produce their own nutrition from air, water and sunlight; plants do not move themselves from place to place; most animals are mobile as they need to find food

Activity title	Answers
Invertebrates	Hydrostatic skeleton: bodies have cavities filled with fluid surrounding the muscles Exoskeleton: rigid outer casing that covers the body protecting the organs; has joints to help the animal move
Vertebrate classification	Across 2. feathers 5. coldblooded 6. five 8. mammals 9. reptiles Down 1. birds 2. fur 3. amphibians 4. vertebrate 7 fish
What am I?	

Activity title	Answers
Cocka-who?	left: C right: B
Scientific names	 Western Grey Kangaroo *Macropus fuliginosus*  Red Kangaroo *Macropus rufus* Unique to Western Grey Kangaroo: light to dark brown fur; finely-haired muzzle; paws, feet and tail tips vary from brown to black; smaller size and weight; found across southern Australia; Habitat: forests and grasslands Unique to Red Kangaroo: reddish-brown fur with a white belly; black and white markings on muzzle; white tipped tail; larger size and weight; found all over Australia; Habitat: arid areas Shared features: marsupials; carry young in their pouch; forward opening pouch; short fur; powerful hind legs; small forelimbs; big feet; long tail; crepuscular: most active between dawn and dusk; herbivore conservation status: least concern only found in Australia
Looks like a…	Left to right: White-faced Heron, Red-backed Fairywren, Blue-billed Duck

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Activity title	Answers
Plenty of plants	Top left to bottom right: Swamp Banksia, Grass Tree, Donkey Orchid, Illyarrie, Karri She-oak, Poison Pea
Flora facts	student's choice of plant and accurate facts

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Activity title	Answers
Give it a shot	student's own response

PAGE 23

Activity title	Answers
Caption this	student's own response (the actual winning caption is the second one)

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Activity title	Answers
You can do it!	possible answers: • keep to marked paths when bushwalking; • don't litter, and pick up rubbish (if safe to do so) • don't feed or touch wildlife; • be a responsible pet owner: keep dogs on leads and cats inside, never release an unwanted pet into the wild; • don't pick wild flowers – let them grow • leave fallen logs, sticks and rocks in nature – they are probably part of an animals habitat • join in planting days or citizen science projects • plant a native garden or make a frog pond at school or home • donate money to a conservation group or do a fundraiser for them • share your knowledge about protecting biodiversity with others
Helping hands	Top to bottom: conservation, preservation, sustainability
Anyone can be a scientist	Type of wildlife you can record (from top to bottom): frogs, aquatic macroinvertebrates, all plants and animals, all plants
National Threatened Species Day	student's own response