



# Growth and Survival – Year 6

## Guide to answers for swap cards

The cards encourage students to investigate many animals in the Museum gallery and to record diverse information about them. Back at school this raw data can be used in various ways to reinforce the idea that **growth and survival of living things are affected by the physical conditions of their environment**. After the Museum visit ask students to sort their information, then expand on it using research from other sources. You might assign headings, or ask students to group the information according to their own criteria. Suggested headings are given below.

## What affects the growth and survival of living things?

<i>Climate</i>	<i>The landscape</i>	<i>Other animals</i>	<i>Using materials from the environment</i>	<i>Pollution</i>	<i>Protection</i>	<i>Feeding</i>	<i>Moving</i>	<i>Changing Location</i>
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### Climate

- Silky Mouse populations boom after fires, exploiting the new growth.
- Australian Bustards are nomads, following rain to feed in the brief desert bloom of growth.
- Shield Shrimp die when their desert puddles dry up, but their eggs can survive for years in the dust until the next rains.
- Whistling Spiders usually stay in their burrows to avoid drying out, emerging briefly to catch passing insects.
- Lake Eyre Callop live in waterholes in the desert, venturing out to feed and breed when the rare heavy rains flood the desert.
- Yellow-footed Rock-wallabies abandon their young in bad years.

### The landscape

- The Shingleback lizard is well camouflaged in its landscape.
- Kangaroos have elastic leg tendons that give them an advantage moving over obstacles in the landscape.
- The Centralian Blind Snake is streamlined and eyeless which helps it move through loose soil easily.

### Using materials from the environment

- Common Ringtail Possums build dreys (nests) of leaves to rest in.
- Dome Ants use dirt and plant material to guard their nest from floodwater and perhaps other dangers.
- Night Parrots do not use hollow branches, but dig a burrow to nest in.
- Male Western Bowerbirds build bowers decorated with white stones and bones to attract a mate.
- Mallee fowl mounds incubate eggs because the rotting vegetation warms them.
- Swamp Rats make tunnels for safer movement in vegetation.
- Australian Pelicans use rising warm air to fly high and look for water.
- Scarlet Robins use bark, grass and twigs for a nest, bound with spider web.
- Australasian Bitterns are well camouflaged amongst reeds.
- Seahorses are well camouflaged and have a prehensile tail for anchoring themselves amongst seaweeds.

### Changing Location

- The Finders Ranges Purple Spotted Gudgeon could easily become extinct if some disaster befell the few streams it inhabits.
- Southern Frostfish hide in the deep ocean during the day, rising to mid-water to feed at night.
- A Spiny Crayfish can leave its pool if it is drying up or becomes polluted.

### Other animals

- The Red-tailed Worm-lizard needs ants to eat.
- Coral Snakes use their teeth to slash eggs open.
- Carpet Pythons' heat detectors look like holes or slits.
- Heath Goannas lay their eggs in termite mounds.
- The Glossy Ibis uses its beak to probe holes for worms and other food items.
- The Laughing Kookaburra kills its food by bashing against branches.
- Foxes and cats are introduced predators.
- Little Corellas use their beak to break twigs looking for grubs to eat.
- The Southern Bailer uses its large foot to engulf prey.
- The Whalesucker has a sucker on top of its head which allows it to attach itself to larger fish and hitch a ride.
- Dragon lizards have large triangular shaped heads and an upright posture.

### Protection

- The Sleepy Lizard is protected by heavy scales, camouflage and a cryptic tail that predators can mistake for its head.
- Masked Lapwing eggs are well camouflaged.
- The Common Stargazer has a mouth that faces upwards and raised eyes that can stay above sand when the rest of the fish is buried.

### Feeding

- Little Eagles have sharp hooked beaks for tearing meat, strong talons for killing and grasping and large wings for soaring while looking for food.
- The Perentie, South Australia's largest lizard, is large enough to prey on almost any animal in its habitat.
- Diamond Firetails mainly eat seeds, but catch insects for more energy when raising their chicks.
- The Yellow-footed Antechinus has a flattened head that enables it to fit its head into small crevices to hunt small animals.
- Reptiles do not use food to keep warm, so they need less food than mammals and birds (an advantage where food is scarce).
- A Coffin Ray produces a powerful electric shock to stun its prey.

### Moving

- Geckos have pads on their toes which enable them to climb very smooth surfaces. Tiny hairs on the pads give the lizards amazing grip.
- The Australian Maned Duck has webbed feet for swimming, in contrast to an Australasian Swamp Hen with long toes that runs quickly along soggy ground without sinking.
- Little Penguins are streamlined, have short, strong flipper-like wings and webbed feet that assist its swimming.
- Lampreys use their mouth to rasp skin from fish for feeding. They also use their mouth to grip rocks when moving upstream.
- Platypuses can detect the electrical fields given off by the muscles of their prey.
- Burton's Legless Lizard has a streamlined body shape that enables it to move through leaf litter to hide and find food.

### Pollution

- Mud Shore Crabs are particularly tolerant of polluted water, but this is not true of all crabs.
- The Ribbed Top Shell marine snail would starve if the algae they ate was poisoned by pollution.