ADAPTATIONS

contents

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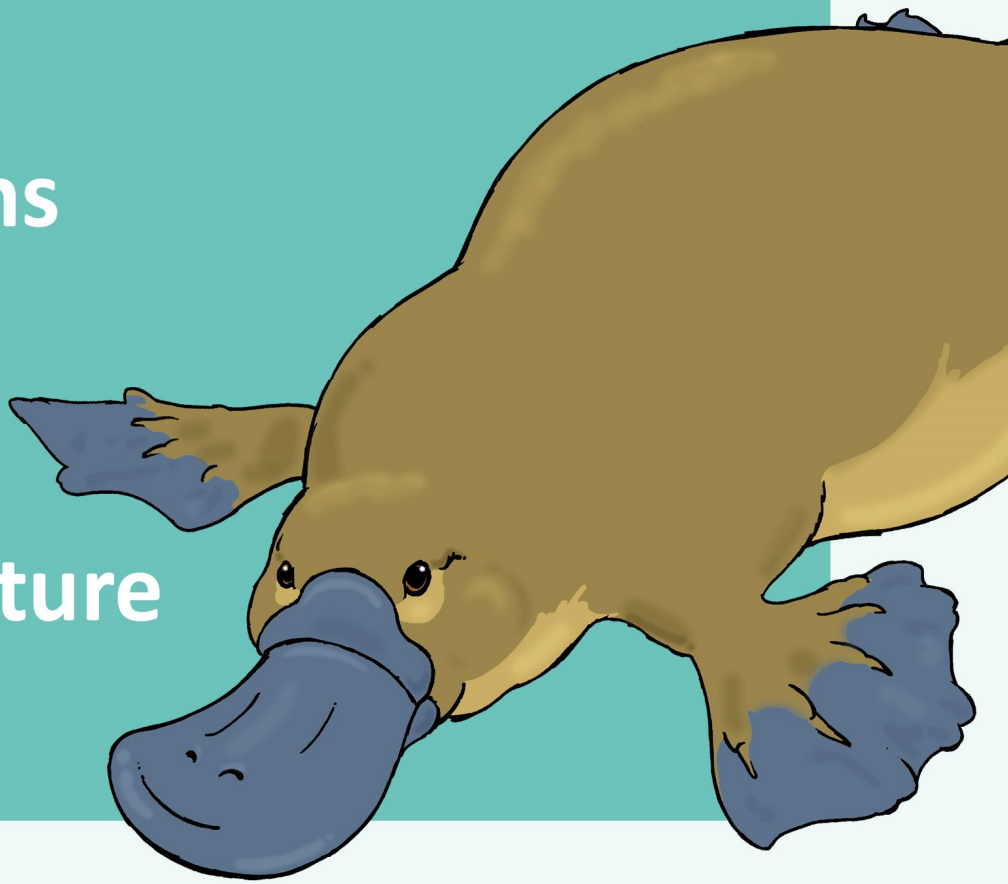
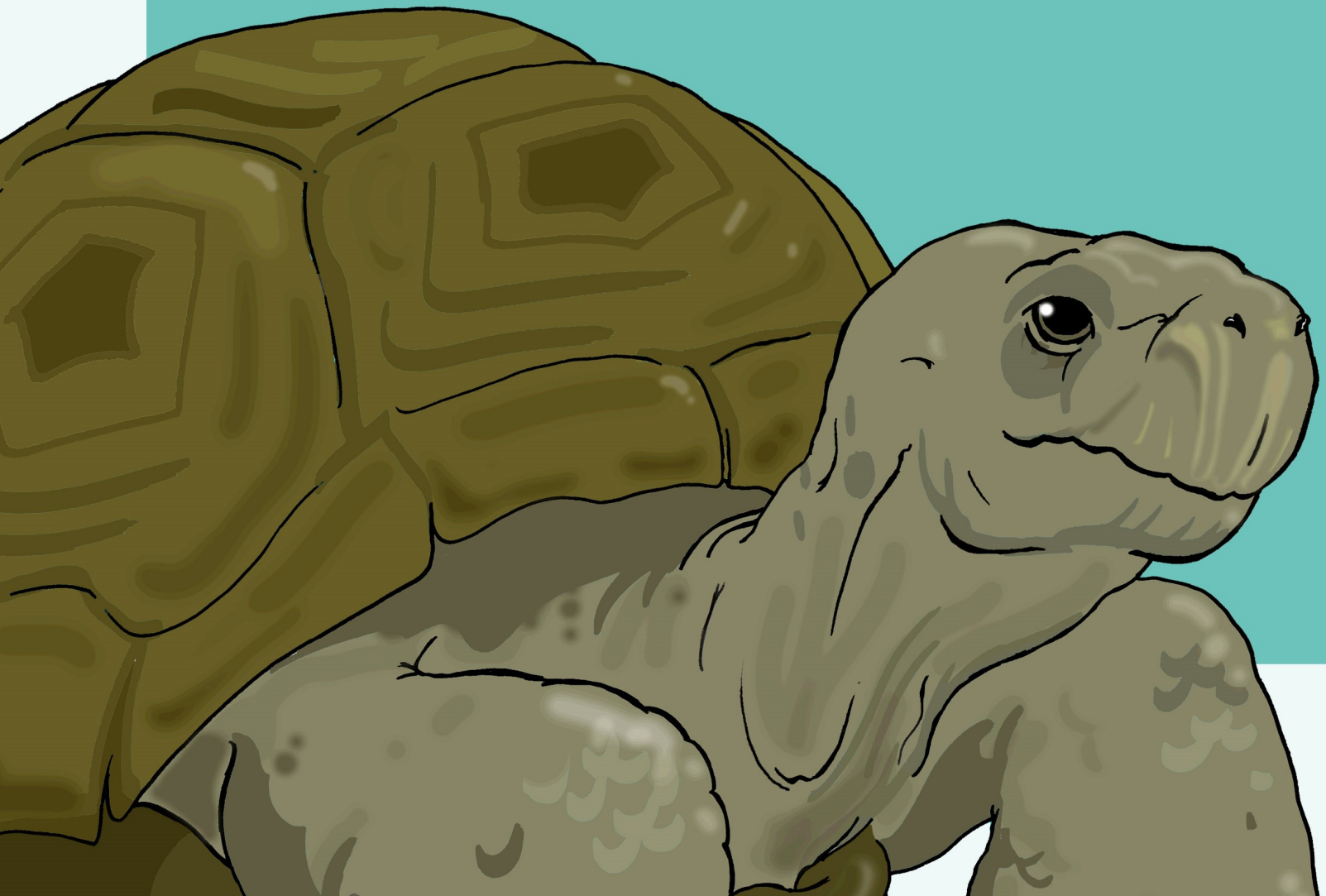
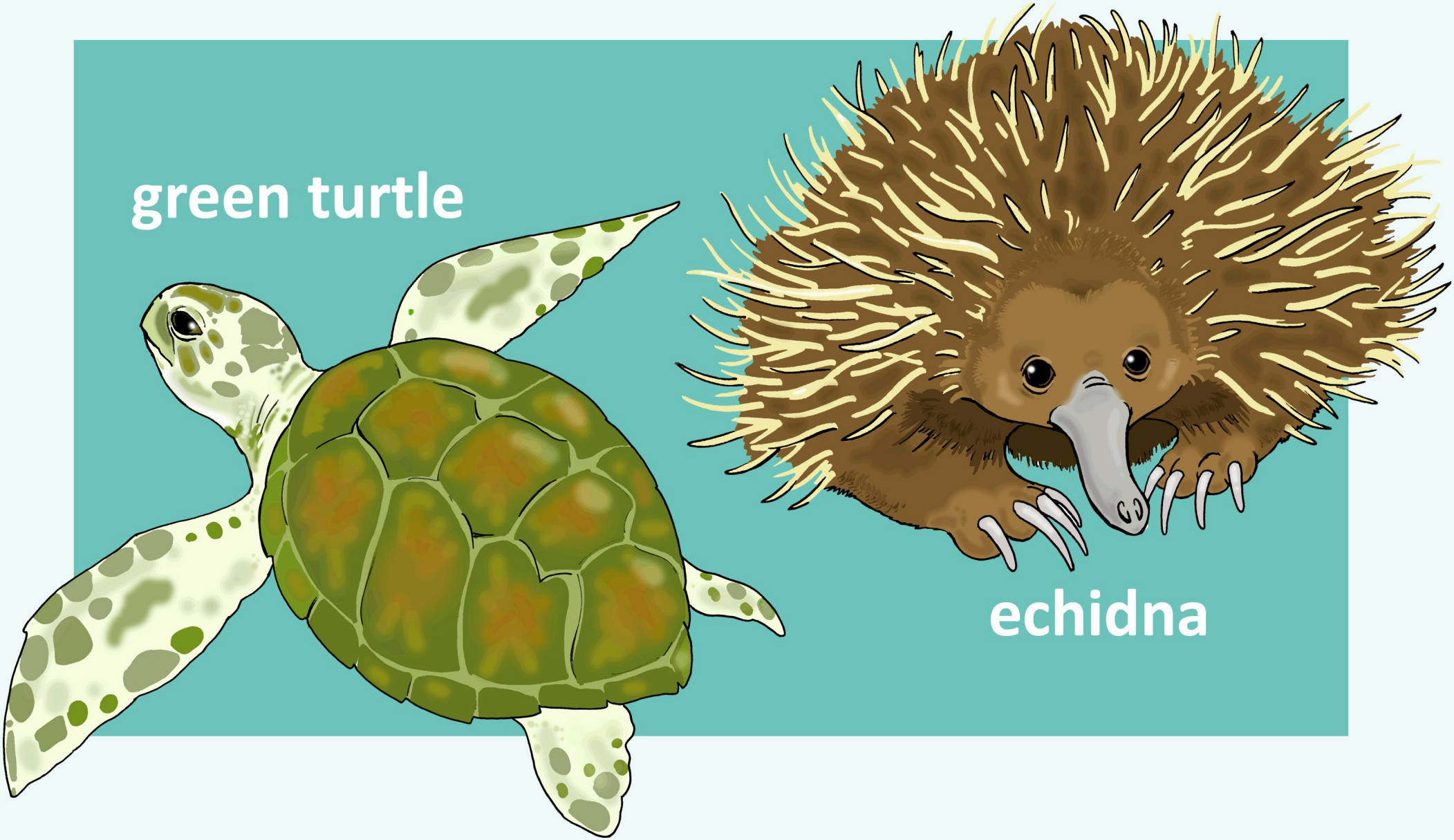


LIVING WORLD EDUCATION

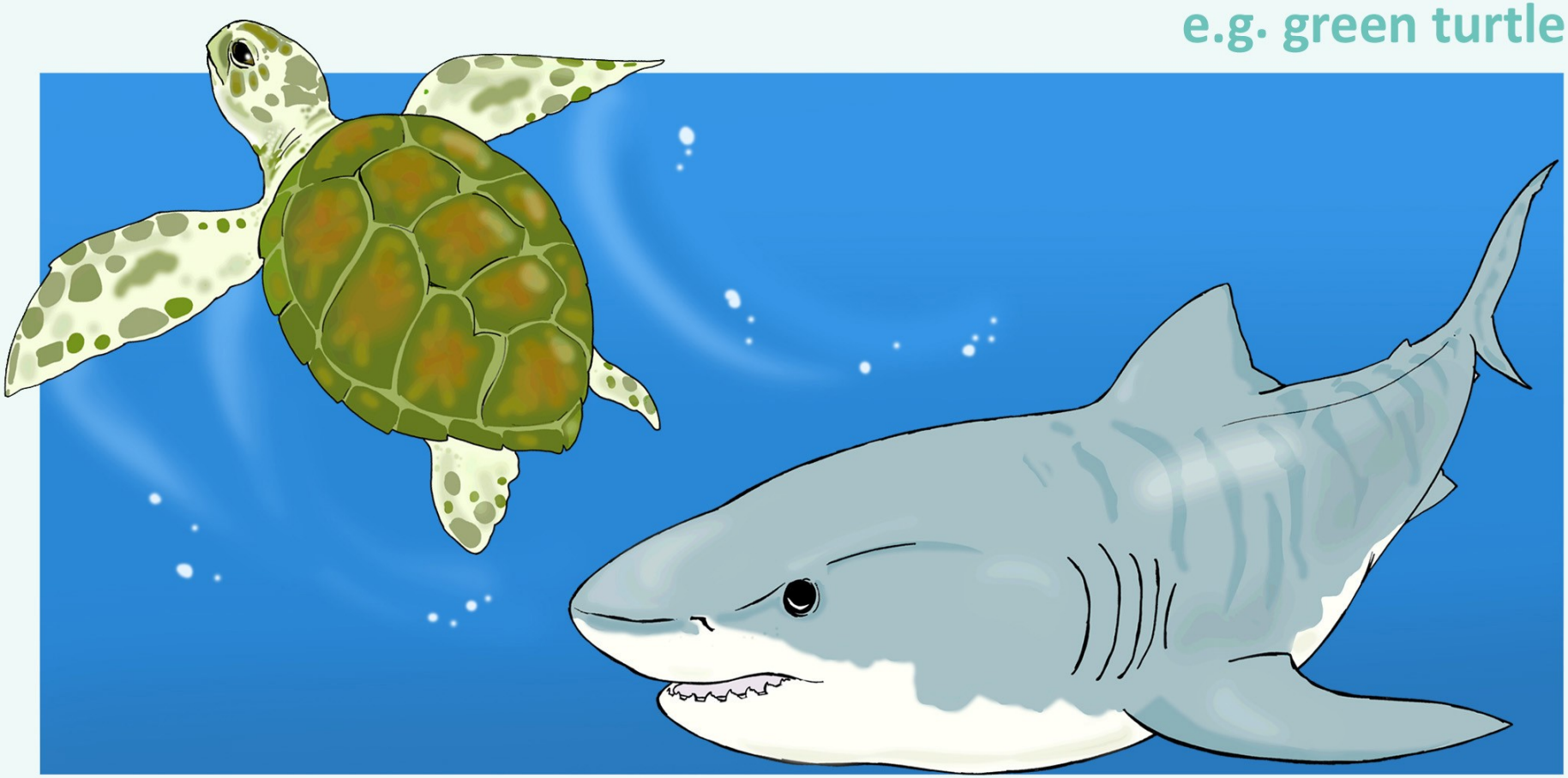
DEFENSIVE ADAPTATIONS



DEFENSIVE ADAPTATIONS - PROTECTION



e.g. green turtle



PROTECTION - Turtles present their broad shells towards the tigers sharks, making a bite very difficult.

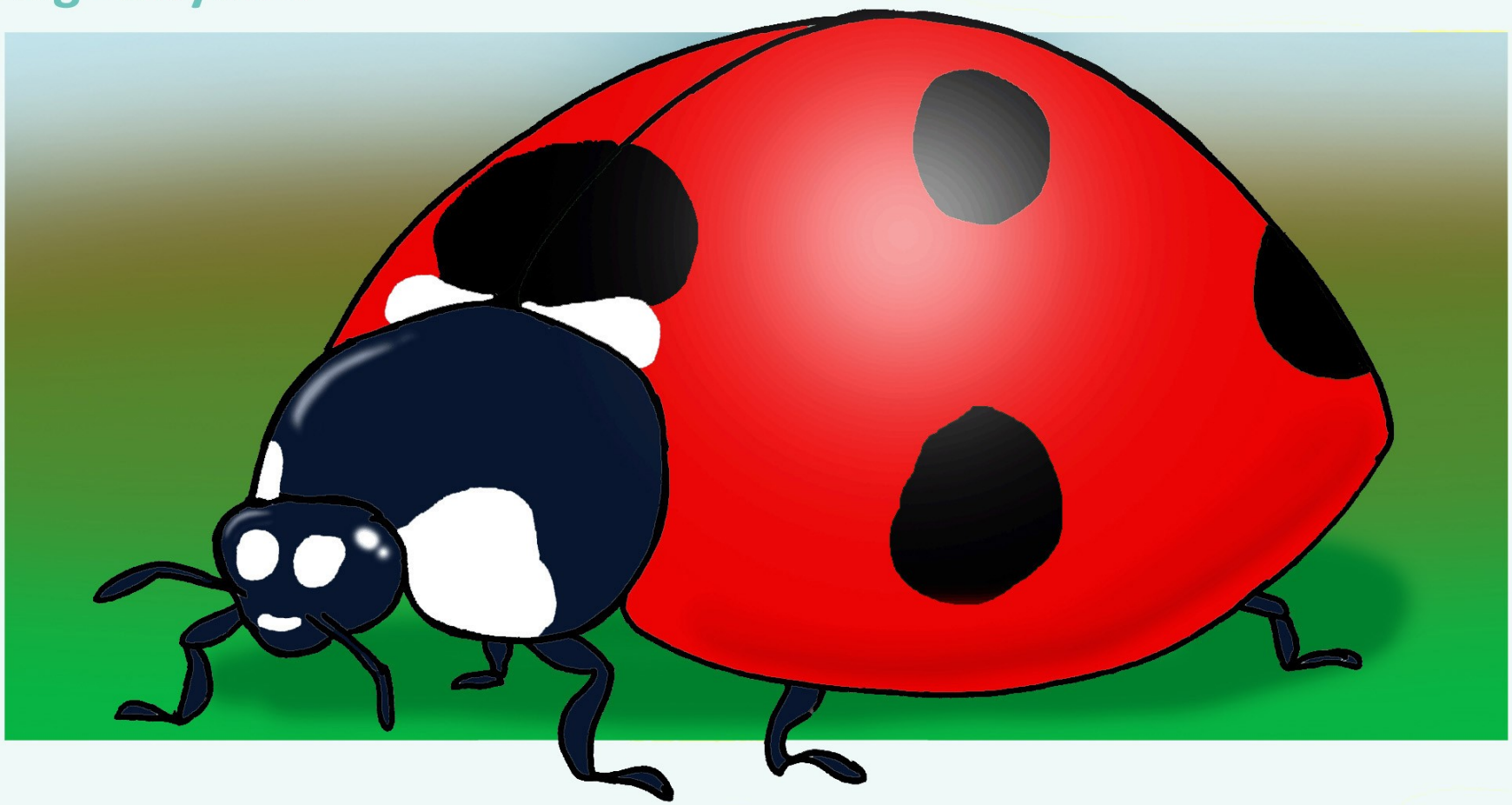
DEFENSIVE ADAPTATIONS - WEAPONS

DEFENSIVE ADAPTATIONS - DISPLAY

e.g. Cape Cobra

DEFENSIVE DISPLAY - Cobra rise up and spread their hood.

e.g. ladybird



DEFENSIVE COLOUR - Red indicates ladybirds taste unpleasant.

DISCOVER MORE...

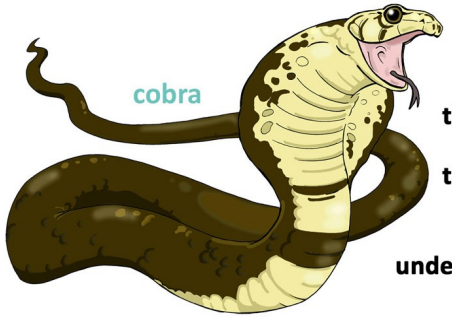
Free worksheet downloads on our website

Adaptations: **Defensive Displays** name

Rather than try to hide from predators, some animals have evolved to give striking warnings that they are not an easy meal.

Snakes such as the red headed krait employ vivid colouration to demonstrate they have toxic venom. Such is the effectiveness of this strategy, that some non-venomous snakes mimic their poisonous relatives.

red headed krait



cobra

Cobra have distinctive hoods that they can erect when threatened. They raise up and wave to ensure they are seen. A would be predator, or a large animal that may injure the snake is warned before they get too close. The cobra may then spit venom at the source of danger if undeterred, and ultimately, it may strike out with sharp fangs.

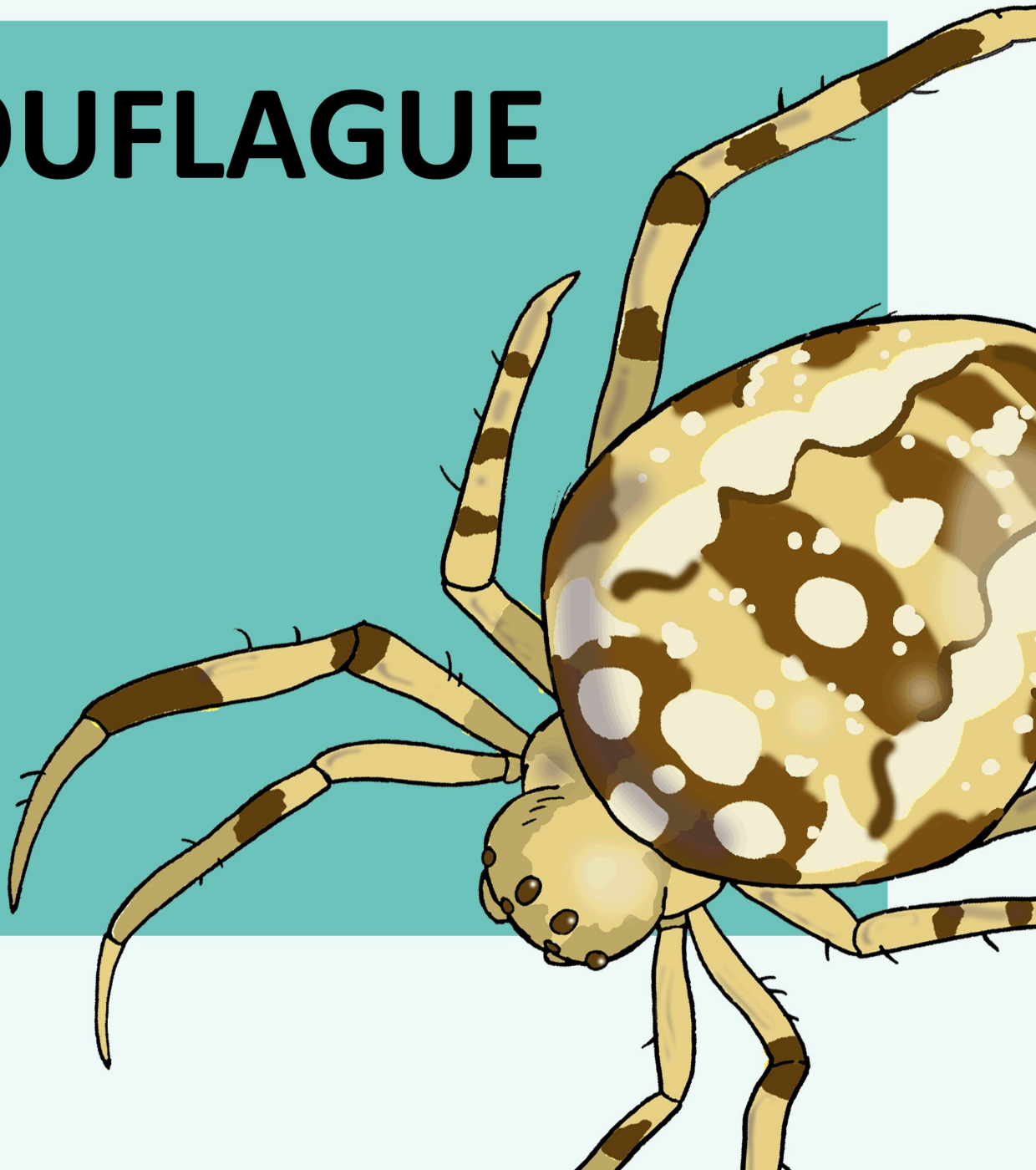
The brightly coloured wing covers of ladybirds give a clear warning to predators that they emit unpleasant smelling and tasting chemicals. Whilst this may not save the insect, the predator will remember the experience and so others will look for better tasting prey.

ladybird

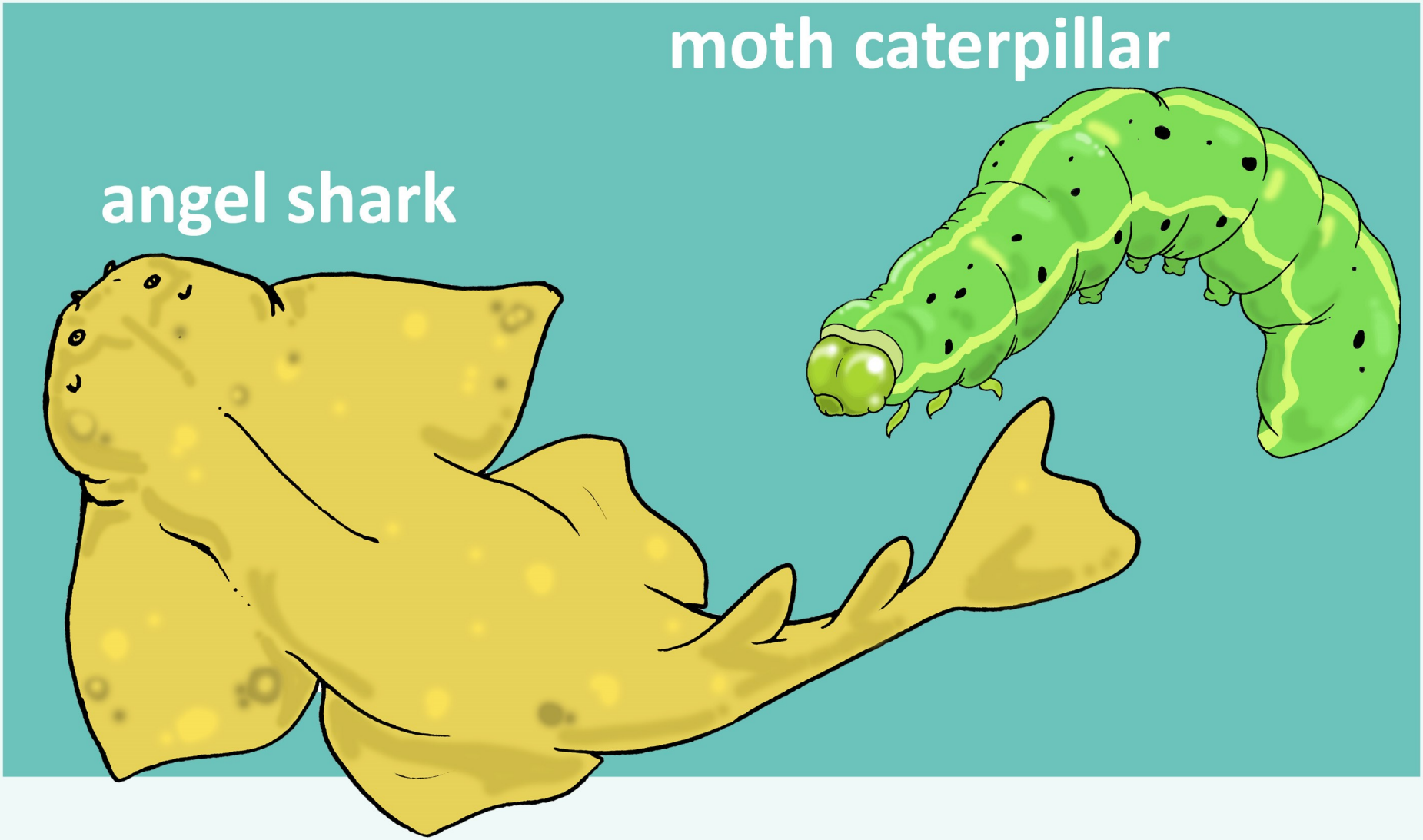
The animals above all also use chemicals to also keep them safe. Explain how the visual signs and chemicals keep them safe?

LIVING WORLD EDUCATION

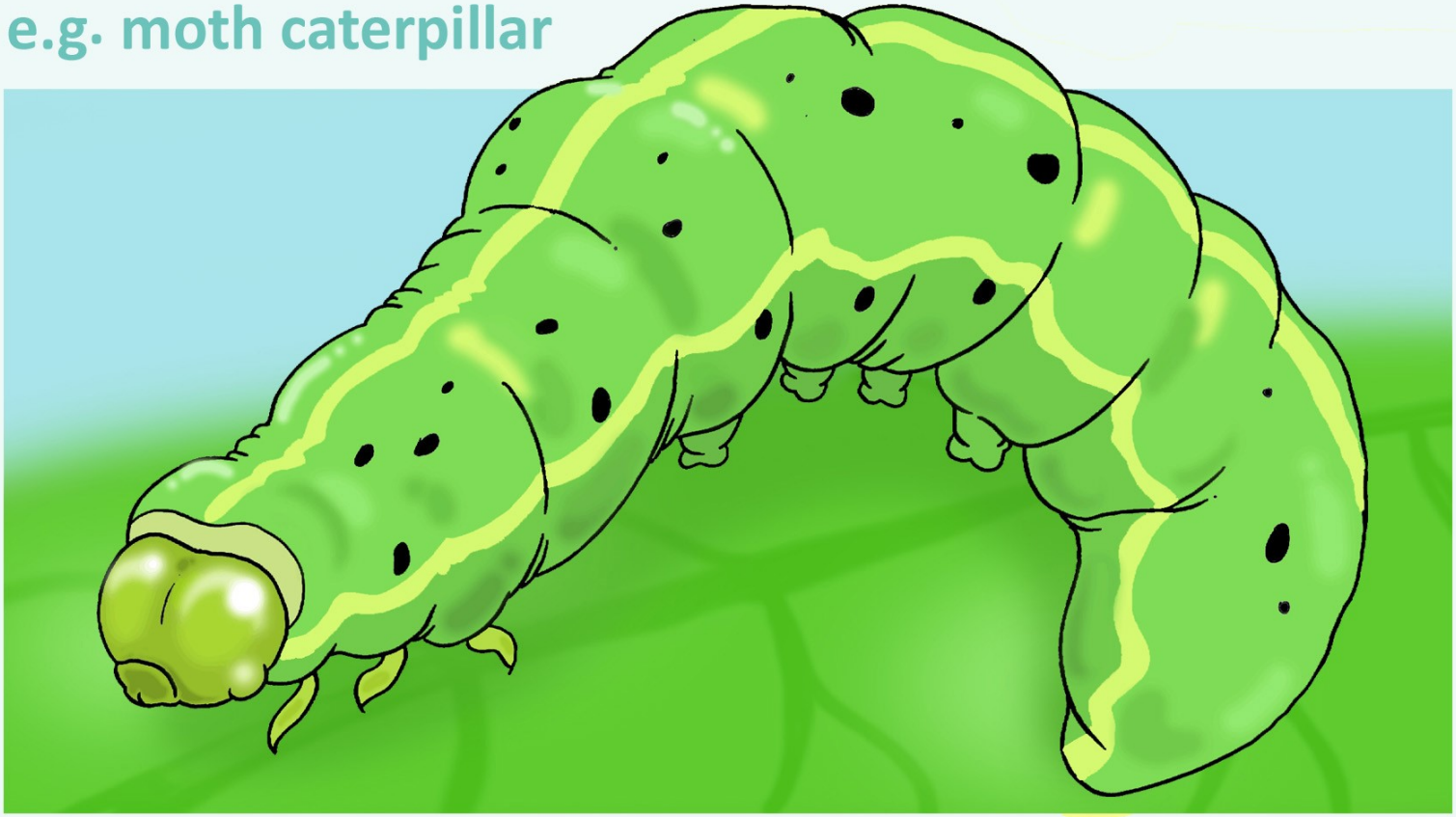
CAMOUFLAGUE



CAMOUFLAGE - BLENDING IN

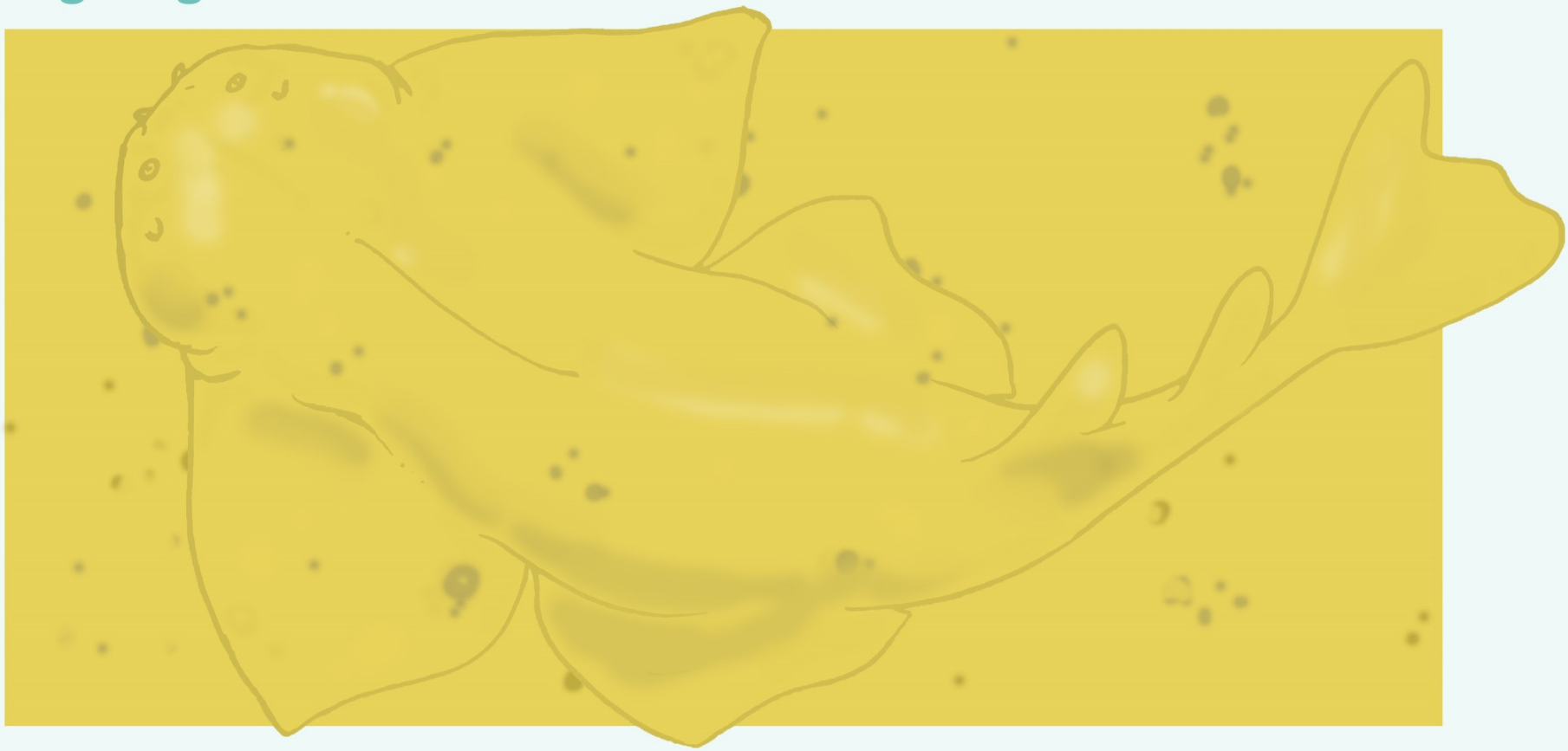


e.g. moth caterpillar



BLENDING IN - Green on green = hard to be seen!

e.g. angel shark

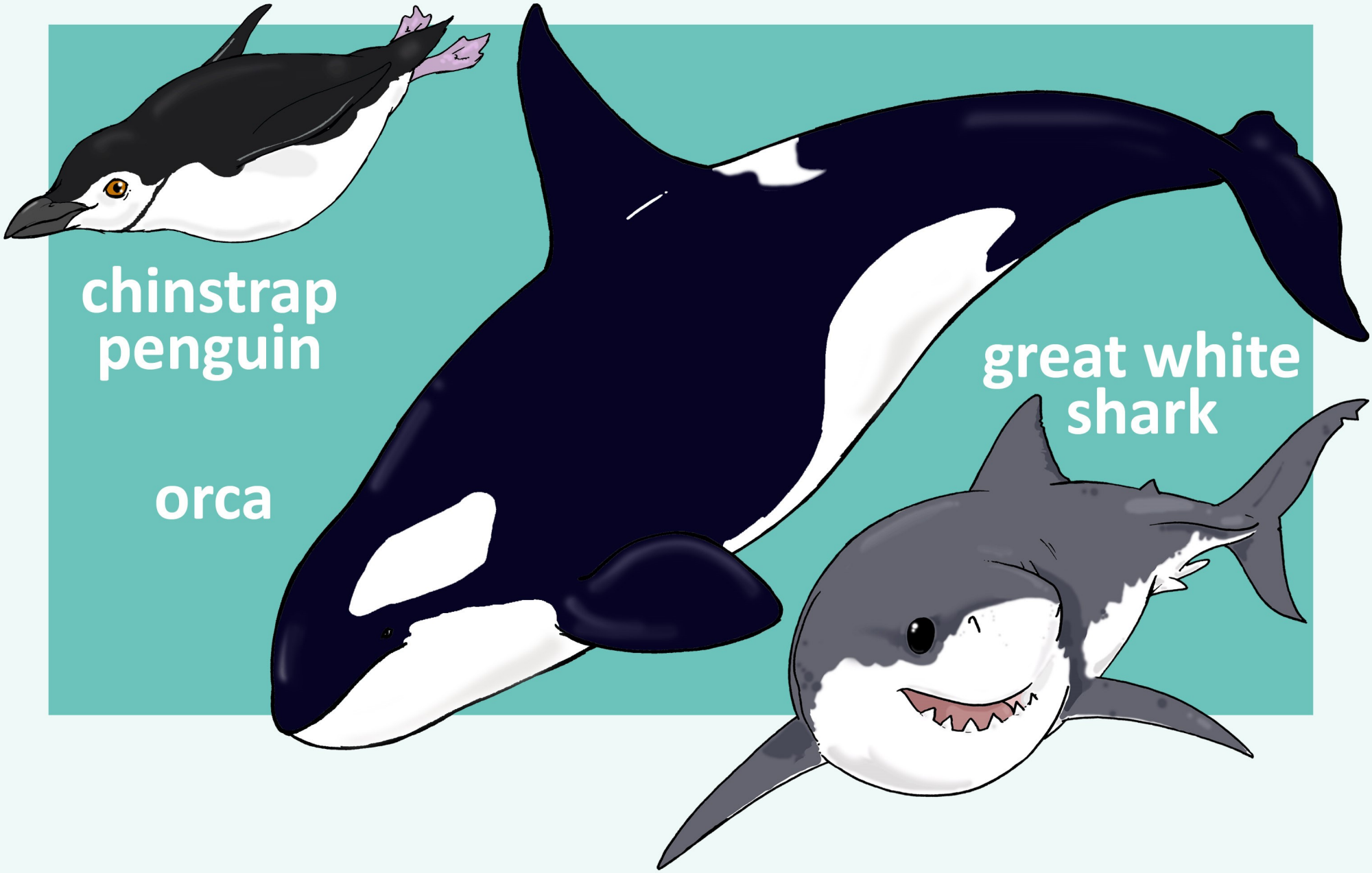


BLENDING IN - resting on the sandy floor, the angel shark lies in wait to ambush prey swimming close by.

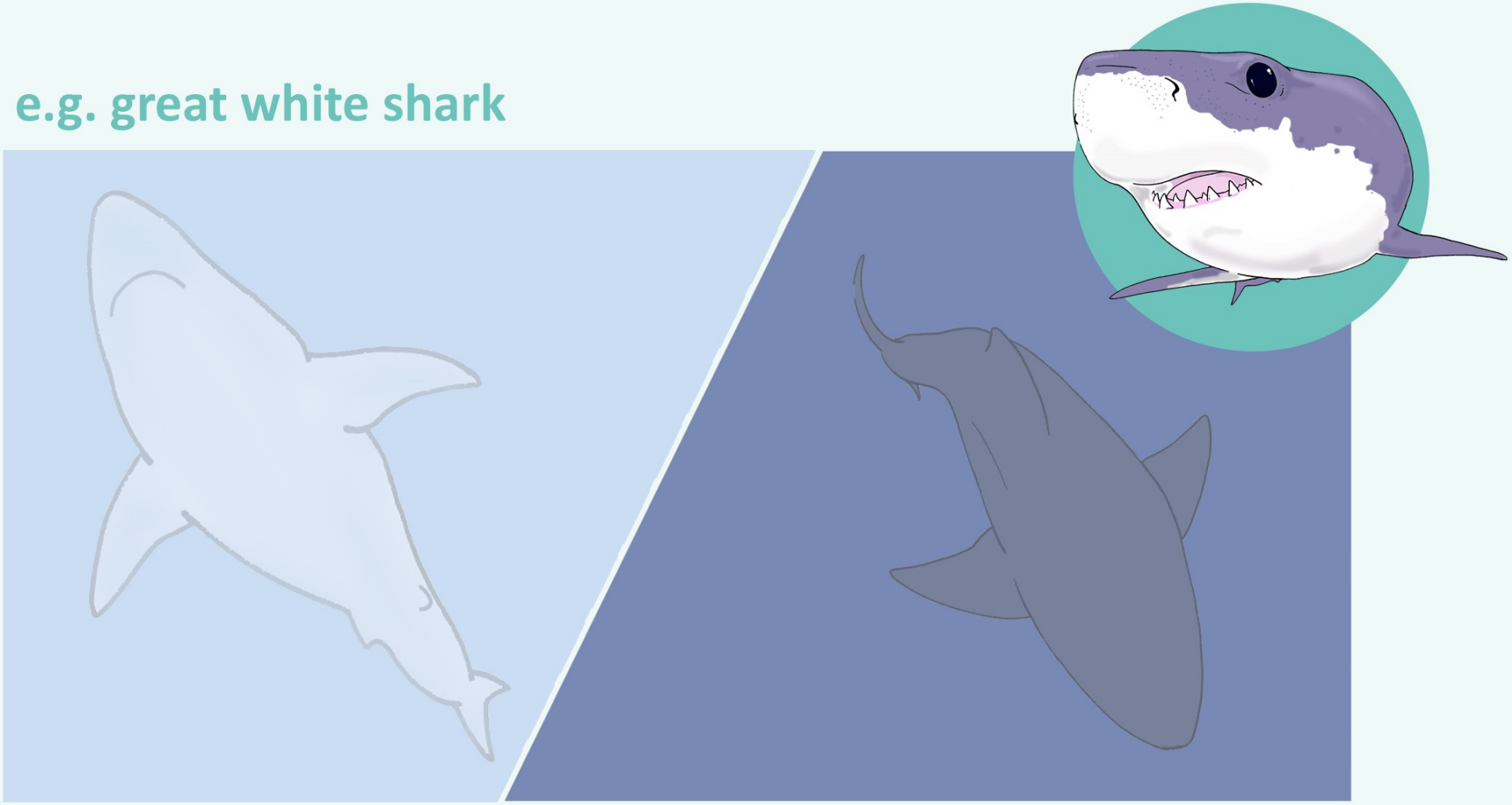
e.g. lion

BLENDING IN - Lion coats match the dry savanna grasses.

CAMOUFLAGE - COUNTERSHADING



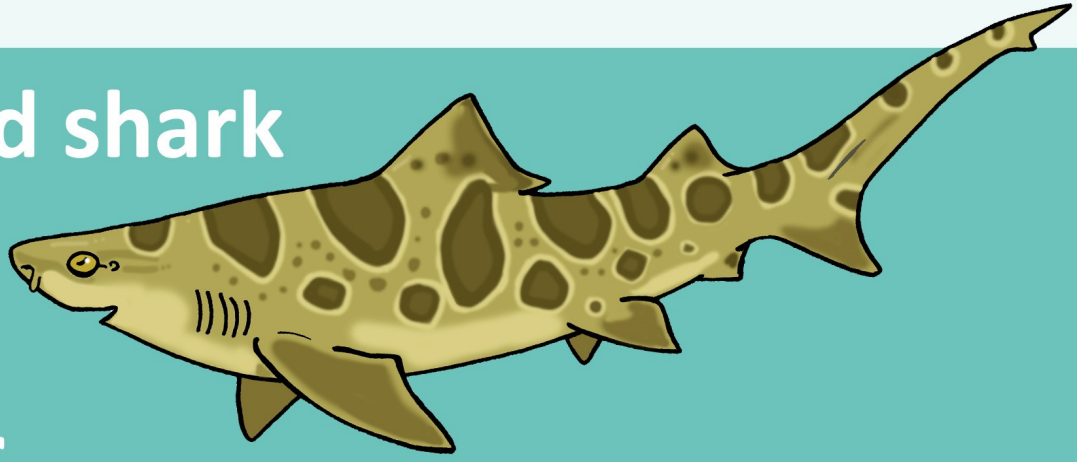
e.g. great white shark



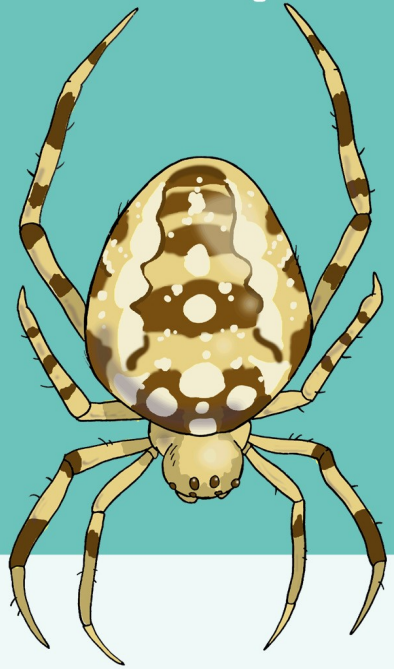
COUNTERSHADING - Pale undersides merge with the light surface/dark top side blends in with the depths below.

CAMOUFLAGE - PATTERNS

leopard shark



garden spider



zebra

FINDING FOOD

e.g. garden spider

TRAPPING FOOD - The spider web is sticky and entangles the prey that fly in to it.

e.g. humpback whale

TRAPPING FOOD - Baleen enables the whale to filter krill from the water in great numbers.

DISCOVER MORE...

Free worksheet downloads
on our website

name

Accessing Food

Look at the animals below. Use the clues to explain how they are adapted to reaching food? (you can do extra research)

giraffe

CLUE

numba'

garden spider

African elephant

name

Searching For Prey

The platypus forages for small invertebrate prey on the beds of rivers and streams. Their super sensitive bill also detects tiny electrical signals. Having webbed feet and thick fur further helps this mammal cope in the cool waters.

platypus

raccoon

Raccoons have incredibly sensitive paws and whiskers that detect the presence of the creatures it eats. Rummaging through the shallow waters, they are skilled in grabbing the frogs, crayfish and insects that make up part of a varied diet.

polar bear

Food is so scarce at the frozen Arctic, the polar bear heavily relies on a powerful sense of smell to detect any feeding opportunity. Their noses can locate food that may be very far away, for example, the scent of a whale carcass may draw in bears from far around.

Use ICT skills to research other animals that...
- Use whiskers to sense their surroundings
- Detect prey with electroreception
- Find food using a sense of smell.

Create a fact sheet or presentation on the subject.

LIVING WORLD EDUCATION

name

Echolocation

Draw soundwaves to show how these animals project sound and bounces off objects. The returning echo enabling them to detect their surroundings, including prey.
(You could add prey items to your diagram)

bottlenose dolphin

pipestrelle bat

rdings of bat and dolphin noises.
ce?

LIVING WORLD EDUCATION

name

g Food

ne animals below trap their food, then answer
full sentences.

basking shark

est sharks in the oceans **filter** tiny
isms from the water. Both the
ark and basking shark (right) sieve
on from the water (this may contain a
y of tiny floating creatures). They simply
ve through the water with their jaws wide open.

The humpback whale targets large masses of small fish or krill. They release **curtains of bubbles** that prevents prey escaping. This is known as "**bubble-netting**". A surge upwards and the mouth of this massive mammal is full. Seawater is forced back out and brush-like **balee** catches the food that remain

humpback whale

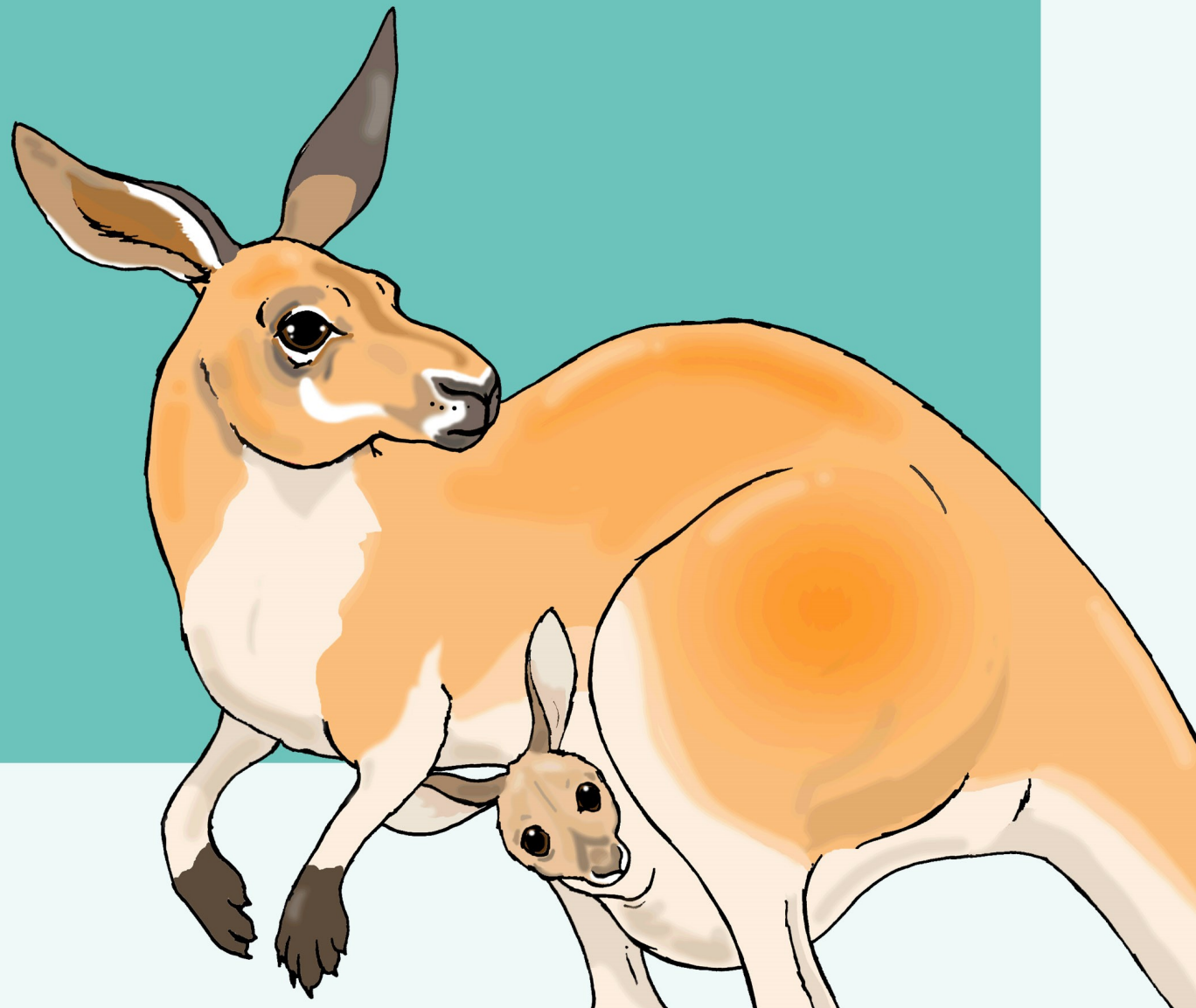
EXPLAIN HOW THESE METHODS ARE...
A, SIMILAR

B, DIFFERENT

some animals actively
heir prey, others use
t strategy. Spider
t elaborate
sticky
flying

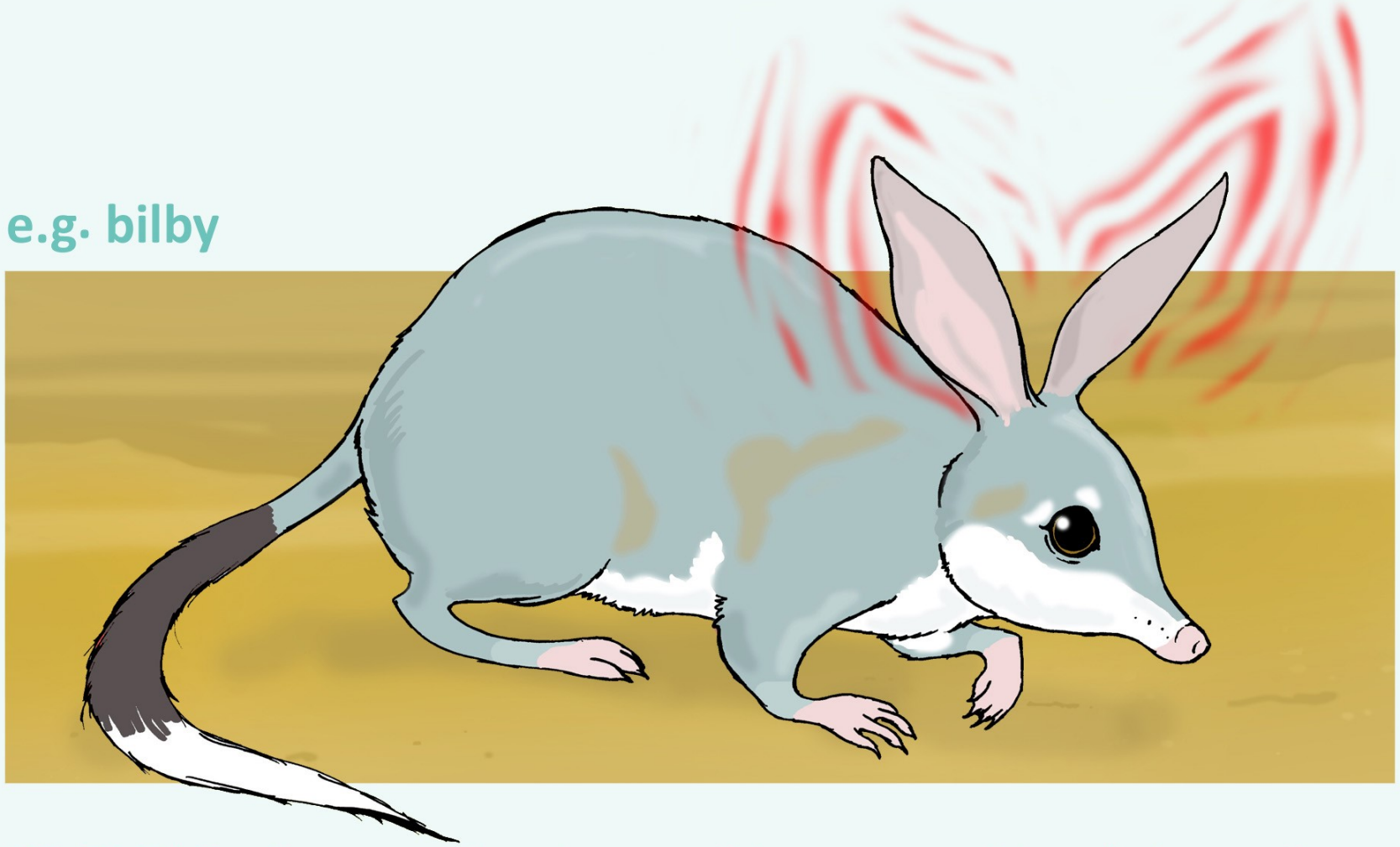
(see downloads)

ADAPTING TO TEMPERATURE



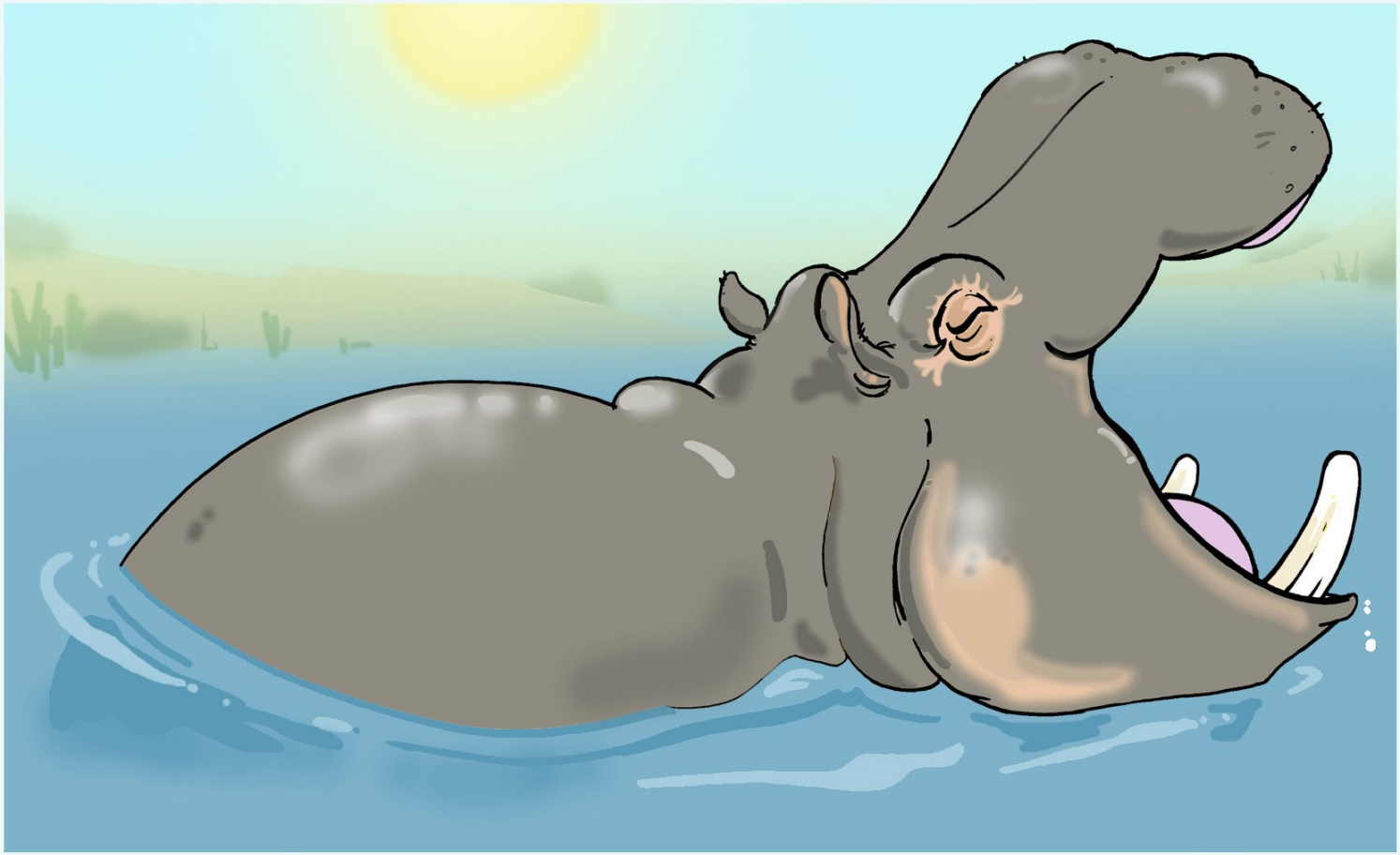
THERMOREGULATION - EARS RADIATE HEAT

e.g. bilby



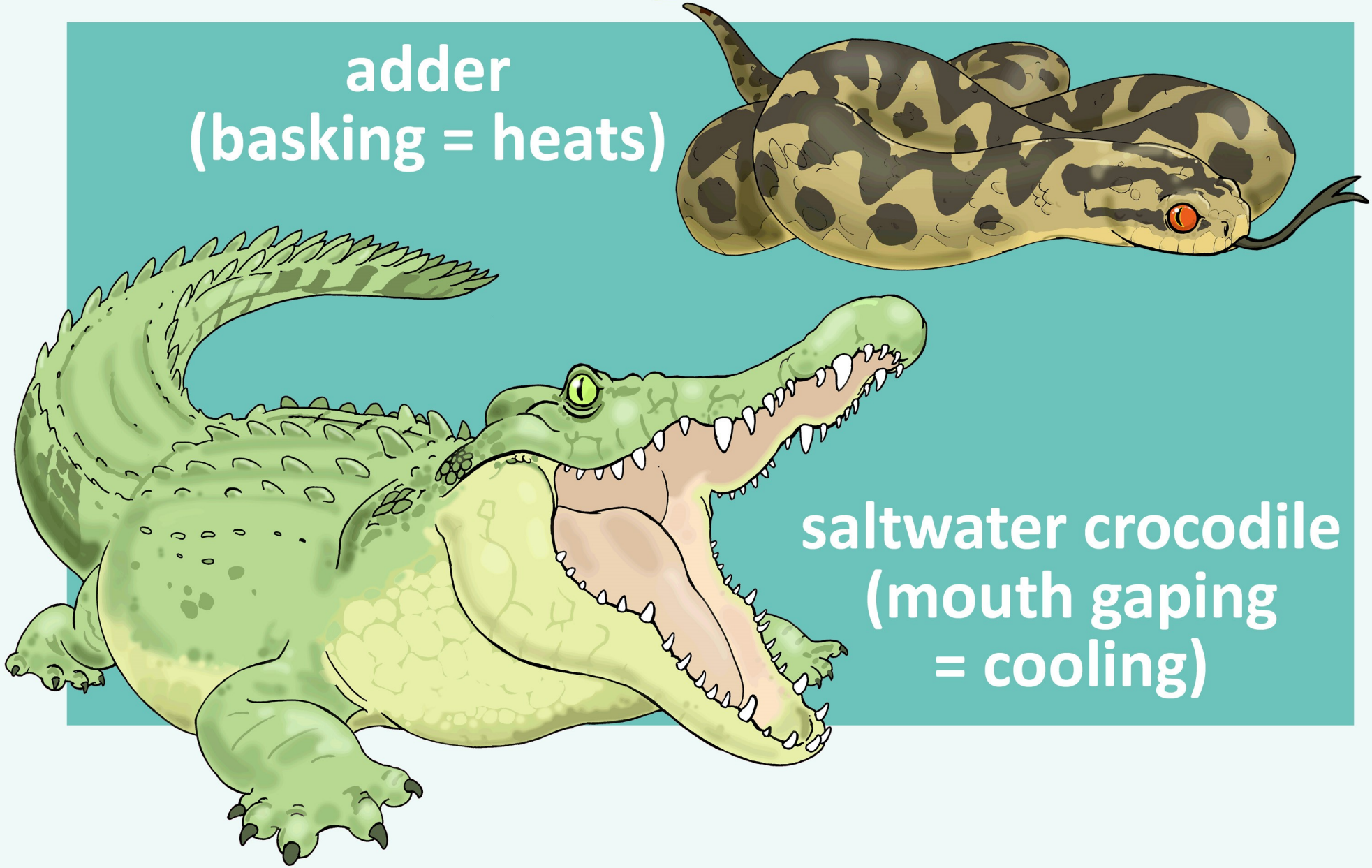
COOLING - Some animals are able to pass blood through their large ears which radiate heat, cooling their bodies.

e.g. hippopotamus



COOLING - seeking shade or water is highly effective.

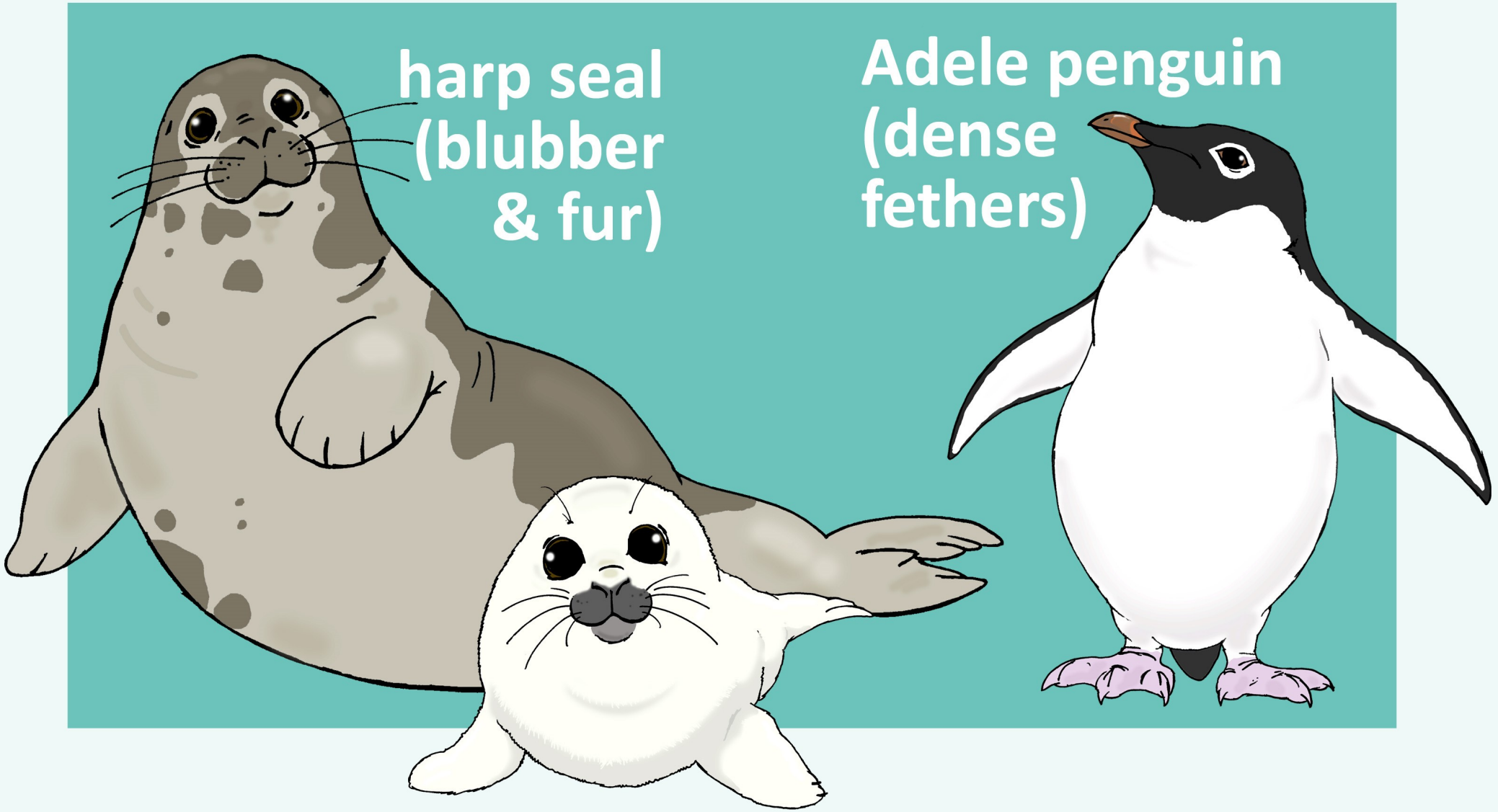
THERMOREGULATION - REPTILES



e.g. marine iguana

BASKING - Absorbing heat from the sun allows reptiles to function and even cope with cool ocean waters.

THERMOREGULATION - INSULATION

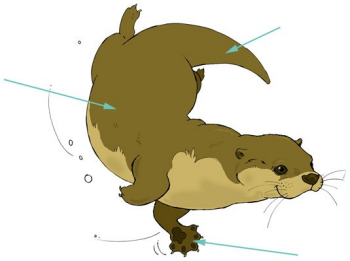


HAVE A GO AT THESE...

(see downloads)

Adaptations: European Otter

name



LABEL, THEN LINK THE FEATURE TO TH

thick fur

webbed paws

tail

whiskers

det

pr

How do the physical features of the otter he

WOW WORD

sensitive

Adaptations: Macaroni Penguin

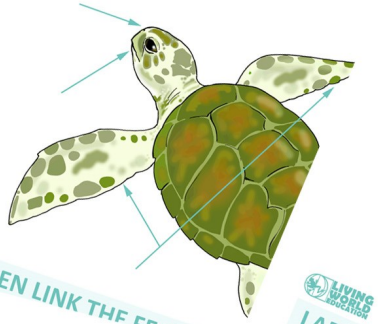
LABEL

webb

N LINK THE

aws

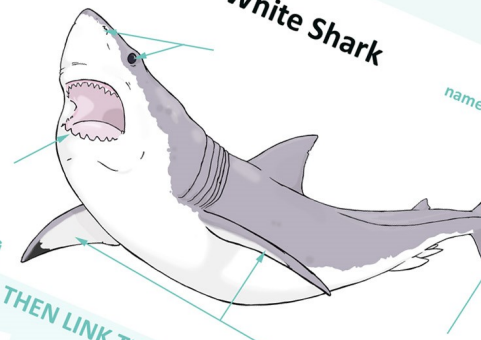
Adaptations: Green Turtle



LABEL, THEN LINK THE FEATU

Adaptations: Great White Shark

name



LABEL, THEN LINK THE FEATURE TO THE FUNCTION

teeth

propels the shark

steering and balance

traps and cuts up prey

detects changes

features of the shark help it survive? (WOW words may help)

ul jaws hunts stalks swallow aquatic

Echidna

LABEL, THEN LINK THE FE

powerful forelimbs

spines

long claws

long nose

How do the physical features

WOW WORDS

mammal sensitive excava

Adaptations: Black Cape Cobra

name

LABEL, THEN LINK THE FEATURE TO THE FUNCTION

muscular tail

hood

tongue

ge eyes

makes cobra look big/ scary

detects movements of prey

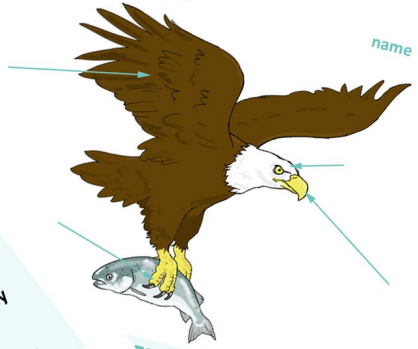
detects scent of prey

moves the snake and grips

ical features of the cobra help it survive? (WOW words may help)

Adaptations: Bald Eagle

name



EATURE TO THE FUNCTION

gliding on air currents

tearing up prey

ping/ holding prey

g prey

help)

forked