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Te ngū tipua

The colossal squid

Pukapuka mahi
Activity book

The colossal squid is the biggest invertebrate on the planet!

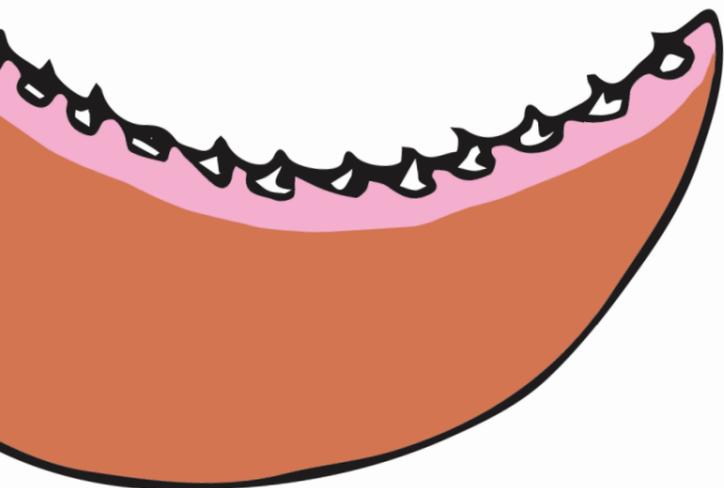
An invertebrate is an animal without a backbone or bony skeleton.

All squid are part of the mollusc family – the same as slugs and snails!

Te Papa's colossal squid is the only one on display in the world. She was caught in the Ross Sea near Antarctica.

In this pukapuka (book), you will:

- imagine a strange creature
- match colossal squid body parts
- see how big a colossal squid is
- compare the colossal squid with other massive molluscs
- follow our colossal squid's journey to Te Papa
- learn what eats what in the Southern Ocean.



Te Papa's colossal squid doesn't have a name!

What would you name her?

.....

Ask an adult to send us your idea for a squid name – on Te Papa's Facebook page, or Twitter: #NameTePapasSquid

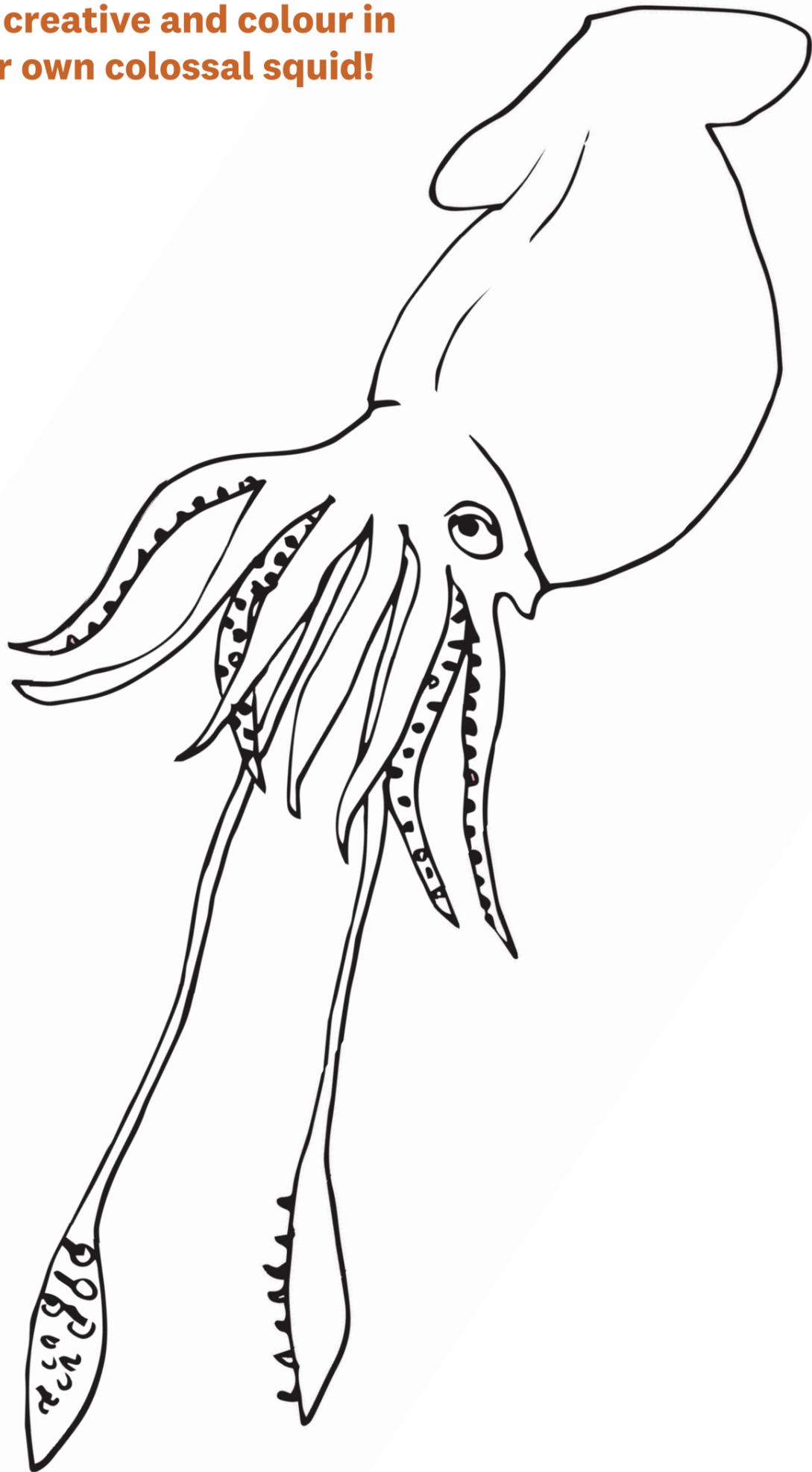


There's so much we still don't know about colossal squid. Nobody has seen a male one! What do you think the male might look like?

.....

Keen to know more about the colossal squid? Visit Te Papa's website: tepapa.nz/squid

Get creative and colour in your own colossal squid!



Choose some of these things to draw a crazy creature!

- eyes with 'headlights'
- three hearts
- a beak
- two tentacles with hooks at the end
- a doughnut-shaped brain
- no bones
- blue blood
- eight arms with suckers



I call this creature

Now turn the page ...

The colossal squid has all those body parts you drew! How does your picture compare?

1. Eye | Karu The colossal squid has the biggest eyes of any animal in the world! Their size helps it see in the deep, dark ocean. The squid can also produce light from its eyes – like a car’s headlights – to see more and to attract prey.

2. Mantle | Tinana This is the body of the squid. The mantle protects internal organs like the heart.

3. Fin | Hiku The fin is attached to the mantle. The squid uses it to swim.

4. Arm | Ringaringa The colossal squid has eight strong arms. These are covered with strong suckers.

5. Tentacle | Kawekawe The squid has two tentacles – powerful weapons for grabbing prey.

6. Hooks | Tara These big hooks are unique. They’re found on the end of the tentacles, and they swivel to snag prey. Ouch!

The colossal squid has these incredible body parts too.

Brain | Roro The squid’s brain is shaped like a doughnut! It has a hole in the middle, which allows food to pass through from the mouth to the stomach.

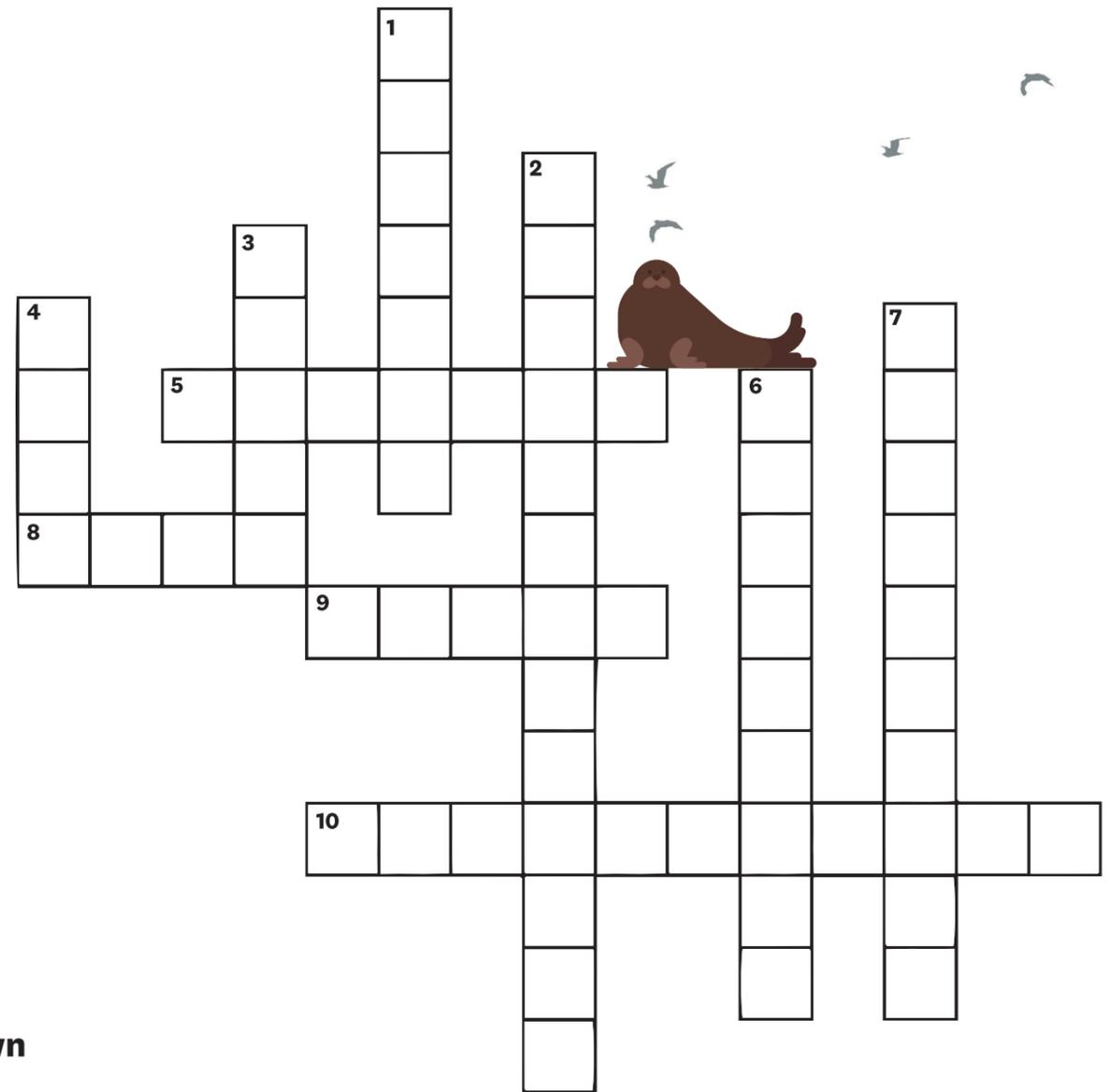
Beak | Ngutu The beak is like a parrot’s beak that’s upside down. It chops and slices up prey.

Skin | Kiri The colossal squid can change its skin colour from pale pink to deep red.

Three hearts | Ngā manawa The three hearts send blood to different parts of the squid’s body.

Blood | Toto Squid blood is blue, not red like human blood. Imagine oozing blue blood after grazing your knee!

Read the clues and fill in this crossword with the missing kupu (words).



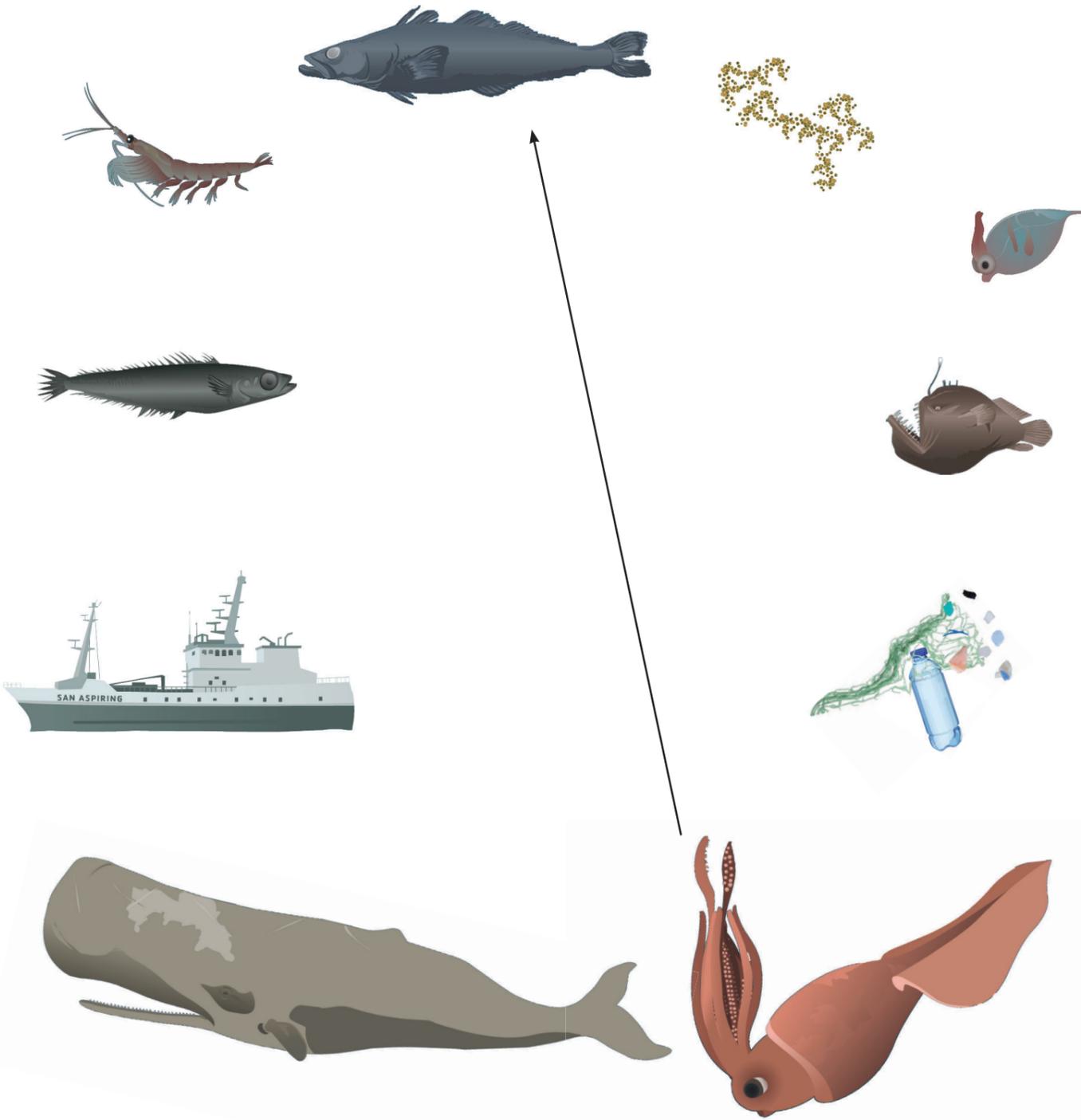
Down

1. Colossal squid are a member of the family.
2. They are the biggest on the planet.
3. They have rotating on the ends of their tentacles.
4. Colossal squid blood is ... in colour.
6. They love to eat
7. The Ross Sea is near

Across

5. The colossal squid on display at Te Papa was caught in the
8. Colossal squid have the biggest in the animal kingdom.
9. They have hearts.
10. The boat that caught the colossal squid is called the

Draw arrows between the things below to make a food web showing what eats what.

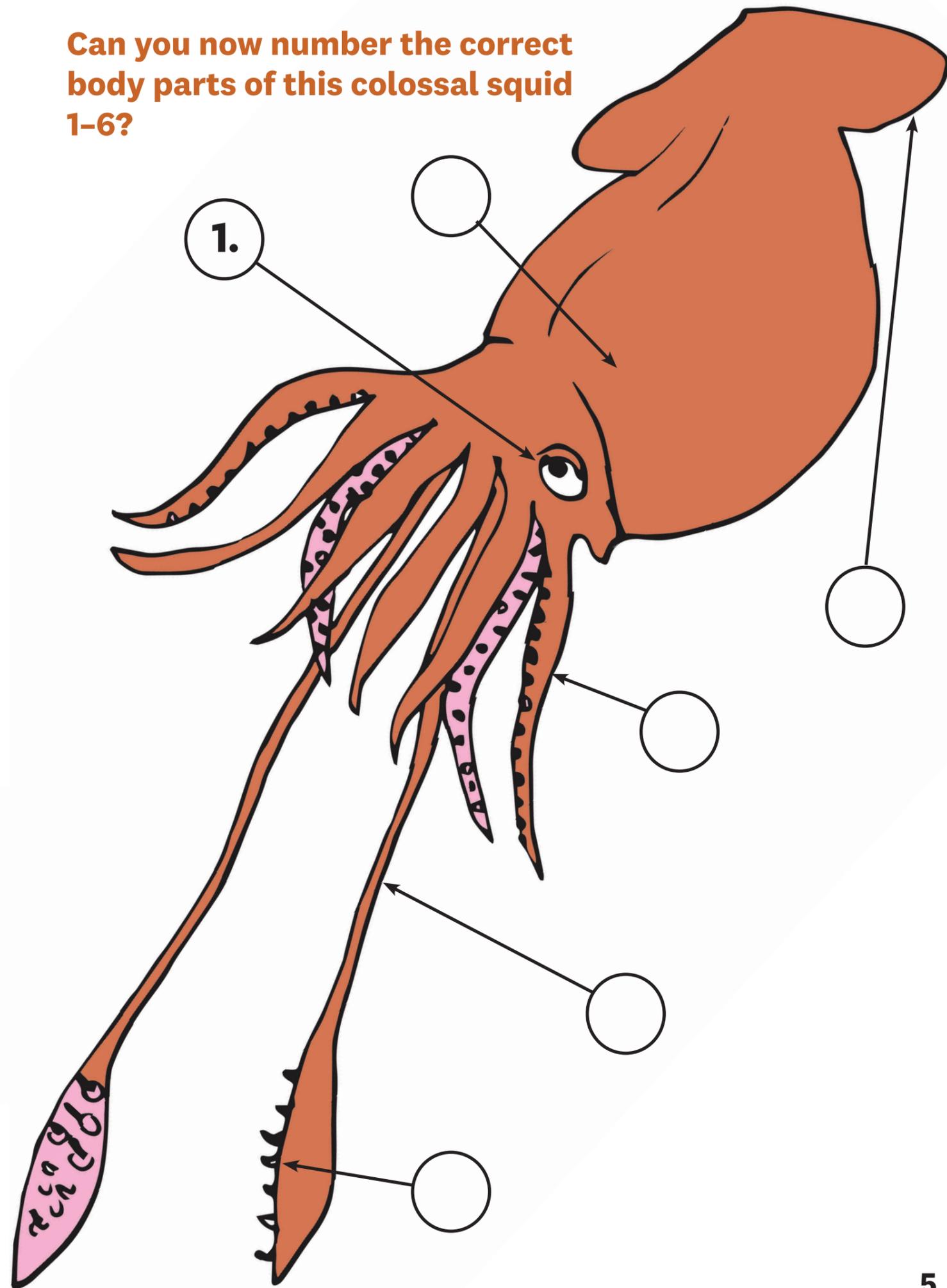


What can you do to stop plastic getting into the ocean?

.....

.....

Can you now number the correct body parts of this colossal squid 1-6?



Te Papa's colossal squid is 4.2 metres long and weighs 500 kilograms. That's a similar weight to a brown bear!



Match these colossal squid body parts with an object that's a similar size.

Whole squid
4.2 metres



Eye
27 centimetres across



Fin
1.25 metres



Hooks
2.5 centimetres

Brain
8 centimetres



Beak
12 centimetres

These animals and their environment make up an ecosystem. Read here about what eats what – this will help you create a food web on the next page.

1 San Aspiring (54 metres long)

The fishers on this boat catch toothfish for humans to eat.



2 Plankton (seen under a microscope)

The start of the food chain. These tiny plants and animals are a crucial food source for many animals such as Antarctic silverfish and krill.

3 Plastic (various sizes)

Sadly, plastic is found at all levels of the ocean. Animals often accidentally eat it – which can make them get sick or die.



4 Antarctic silverfish (25 centimetres long)

Antifreeze in the blood of Antarctic silverfish lets them live in water that's -1 degree Celsius. They eat krill and plankton, but get eaten by toothfish, seals, penguins, and other birds.



5 Krill (3 centimetres long)

Shrimp-like krill swarm through the sea in huge numbers. They eat plankton.

6 Antarctic toothfish (2 metres long)

Sperm whales and colossal squid love eating toothfish. But toothfish fight back! Small beaks from young colossal squid have been found in the stomachs of toothfish.

7 Colossal squid (about 5 metres long)

Colossal squid have learned to feed on toothfish that are caught on fishing lines.

8 Sperm whale (20 metres long)

Sperm whales are the biggest toothed whales in the world. They eat toothfish, but their favourite food is colossal squid.



9 Googly-eyed glass squid (20 centimetres long)

These squid eat plankton and krill, but get gobbled up by toothfish and anglerfish.

10 Anglerfish (50 centimetres long)

Anglerfish eat smaller fish and squid. On their heads, they have a light at the end of a 'fishing rod', which they jiggle to lure prey.

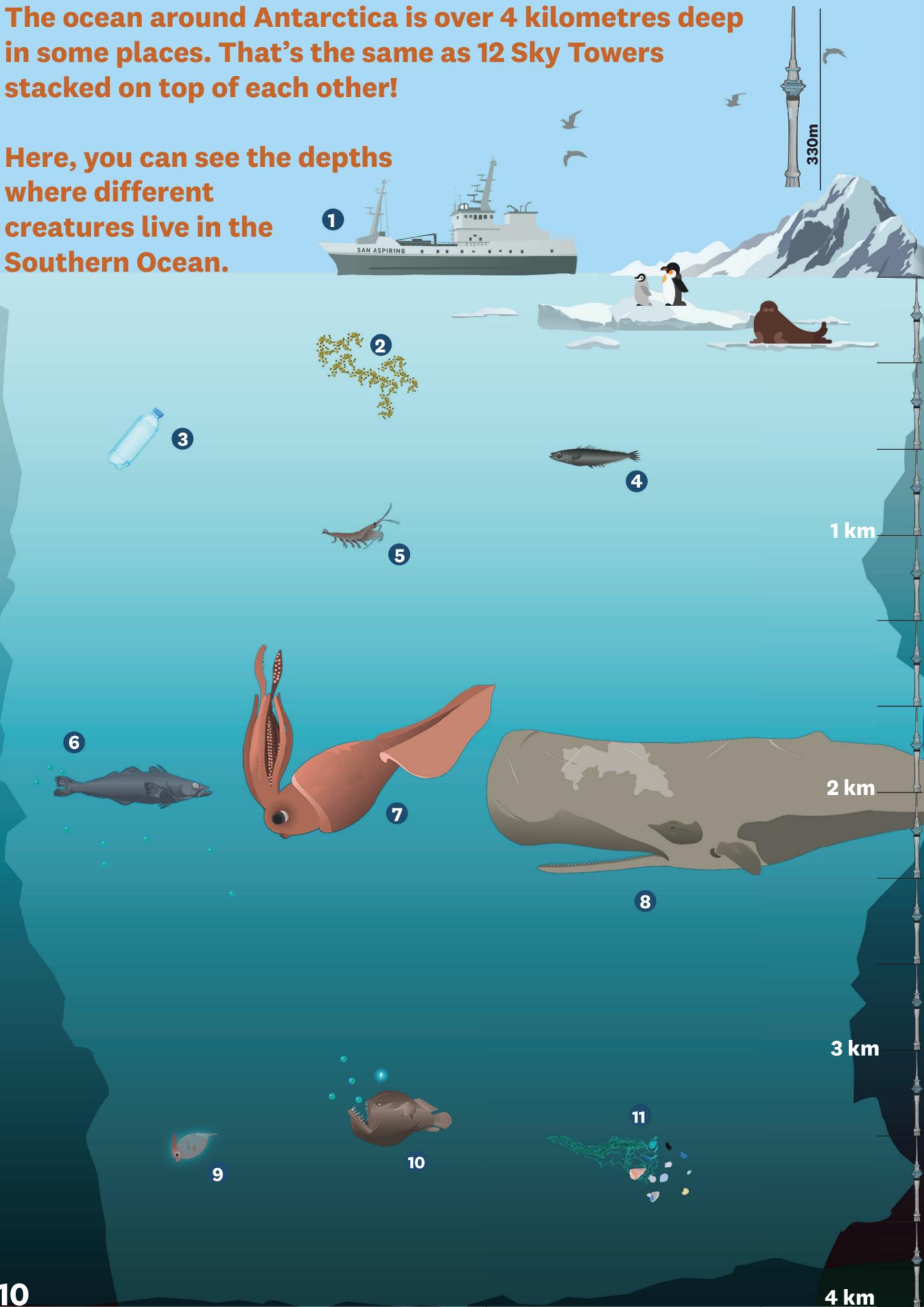


11 Microplastics (seen under a microscope)

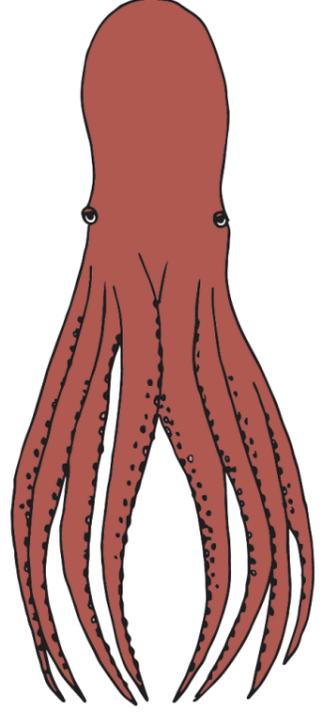
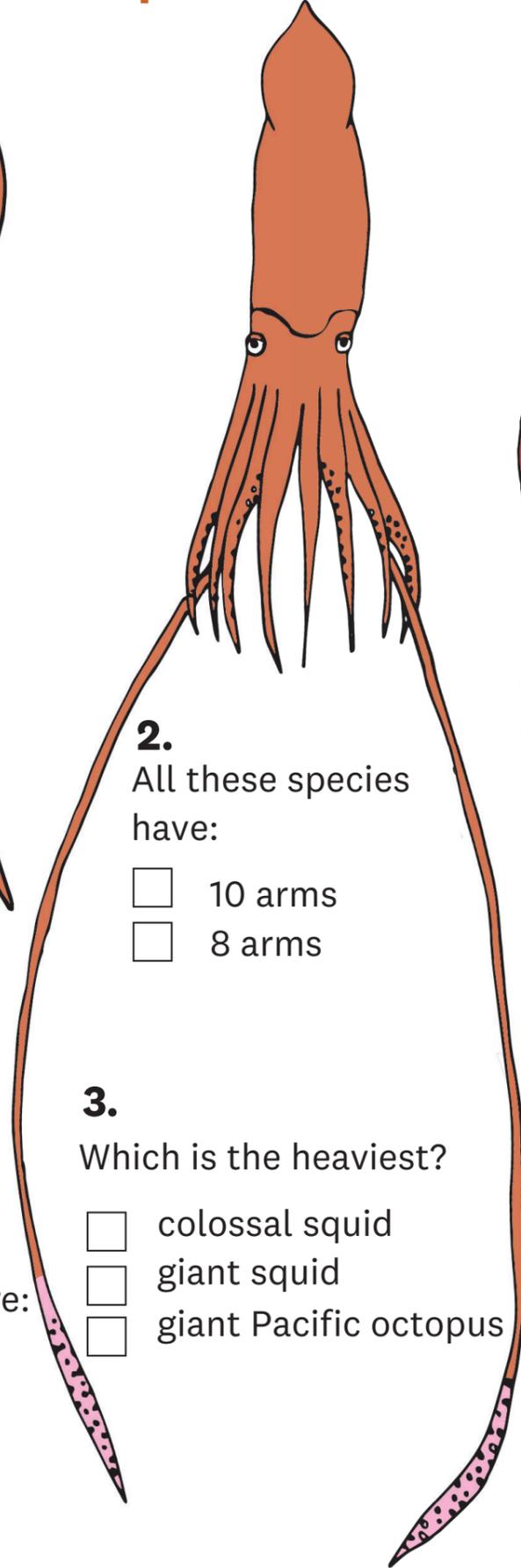
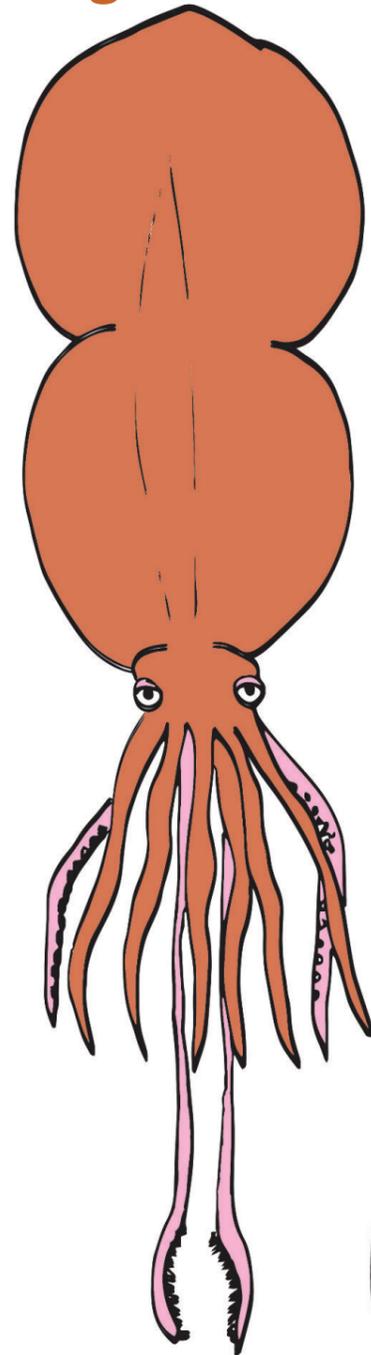
Over time, plastic breaks down into tiny pieces called microplastics. These are easy for even small animals to accidentally eat.

The ocean around Antarctica is over 4 kilometres deep in some places. That's the same as 12 Sky Towers stacked on top of each other!

Here, you can see the depths where different creatures live in the Southern Ocean.



Tick the correct answers and learn the similarities and differences between colossal squid, giant squid, and giant Pacific octopus.



- 1.** All these animals are:
- molluscs
 - fish

- 3.** Which is the heaviest?
- colossal squid
 - giant squid
 - giant Pacific octopus

- 2.** All these species have:
- 10 arms
 - 8 arms

- 4.** Octopuses don't have:
- suckers
 - tentacles
- 5.** All these animals have:
- hooks
 - a mantle

Answers: 1 = molluscs, 2 = 8 arms, 3 = colossal squid, 4 = tentacles, 5 = a mantle

Our colossal squid's journey

The colossal squid at Te Papa was caught in Antarctica's Ross Sea by fishers on a New Zealand boat, the *San Aspiring*.



On the map, fill in the missing letters, and join the red dots to show the journey of the *San Aspiring* and the colossal squid.

The *San Aspiring* left ● **Timaru** on 20 November 2006.

It travelled for about 7 days to the ● **Ross Sea**. New Zealand is a kaitiaki (guardian) of these waters.



On 11 February 2007, the fishers were hauling up a longline when a colossal squid appeared! It was eating a toothfish caught on the longline and wouldn't let go.



Colossal squid can't survive this close to the ocean surface. Sadly, by this time, it was dying. The fishers knew how rare and important the squid was, so they froze it for scientists at Te Papa to study.

At the end of this 70-day fishing trip, the *San Aspiring* returned to ● **Timaru**.

The colossal squid travelled overland to ● **Picton**, where it was put on the Cook Strait ferry. In March 2007, it arrived at Te Papa in ● **Wellington**.

