

Dolphins

Dolphins are small-toothed marine animals that are part of the whale family and can be recognised by their curved mouths which give the appearance of a permanent smile. There are currently an impressive 36 species of dolphins found in oceans, rivers or lakes around the world – each with unique identities and characteristics.

Size and Weight

Dolphins vary greatly in size and weight. One of the smaller species, Hector's dolphin, has an average length of 1.2 metres and weight of 50kg (7st 9lb). In contrast, the bottlenose dolphin has been recorded to reach up to 3 metres in length and weigh a staggering 300kg (47st 2lb).

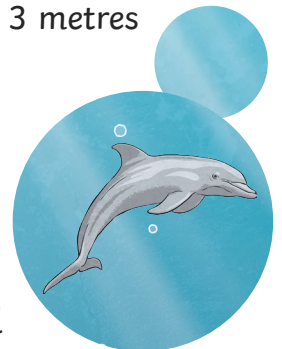
Behaviour and Reproduction

Bottlenose Dolphins

Bottlenose dolphins live in pods which are structured around age, sex and family relationships. Pods can include young male and female dolphins (calves), adult females along with their offspring and adult males, which join a female pod, either alone or in pairs.

Marine biologists have seen female dolphins, known as cows, having more than one mate but they will generally only produce a single offspring which stays with them for three to six years.

Within a bottlenose dolphin pod, there is a social order. Male dolphins will show aggression to build and maintain control by biting, chasing, jaw clapping, smacking their tails on the water, creating bubble clouds with their blowholes, body slamming and raking. Raking is where a dolphin scratches their teeth on another dolphin's skin, leaving light parallel lines which, fortunately, heal rapidly but can leave visible scars.



Hydroplaning Dolphins

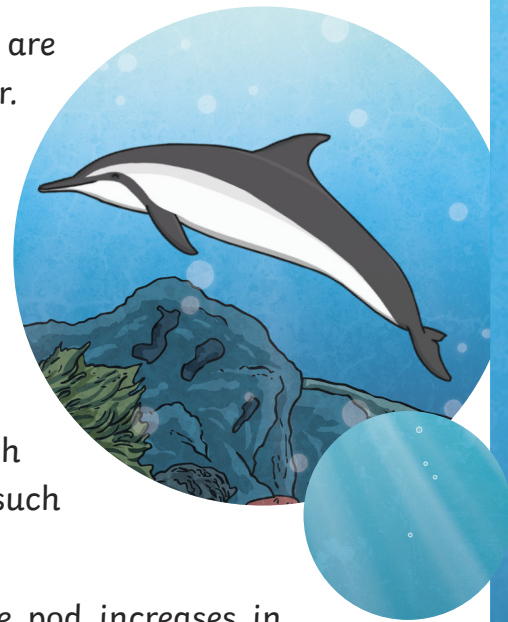
Hydroplaning dolphins can be found in Western Australia. They have adapted their hunting style because the prey of the hydroplaning dolphin swims in shallow waters, only a few centimetres deep, to escape becoming food. As such, the dolphins cannot use the typical dolphin method of tail slapping to stun their prey so they have discovered a way to pump their tails and hydroplane across the beach at a high speed, averaging around 16mph, to catch the fish.

Spinner Dolphins

Spinner dolphins earned their name because they are able to spin many times as they leap out of the water. They do this to communicate, clean themselves or just for fun. Like all dolphins, they use clicks, whistles and touch to communicate with the pod. Spinner dolphin pods gather in great numbers and can be located in the Pacific Ocean, off the coast of Costa Rica, Central America.

Spinner dolphins are commonly seen with tuna fish as the tuna will rely on the dolphins to locate food, such as lanternfish.

As the spinner dolphins close in on their prey, the pod increases in number, sometimes up to 1000 strong. As it is so dark, the dolphins use **echolocation** to uncover the lanternfish. They then surround the fish and drive them to the surface, with some dolphins blocking them from below to stop the prey escaping and returning to the deep. Once they have had their fill of lanternfish, other marine predators, such as stingray, thrive off the remains, making it the perfect hunting strategy.



Glossary

marine biologist - A scientist that studies marine animals or plants.

hydroplane - To glide along the water's surface.

echolocation - A type of sonar.

Questions

1. Which feature of a dolphin gives the appearance of a permanent smile? Tick one.

- stubby noses
 small teeth
 happy eyes
 curved mouths

2. Find and copy one word that means the same as 'one of its kind'.

3. Draw **four** lines and complete each sentence.

In contrast, the bottlenose dolphin has been...

known to reach an average length of 1.2 metres and weigh 50kg (7st 9lb).

Within a bottlenose dolphin pod,...

recorded to reach up to 3 metres in length and weigh a staggering 300kg (47st 2lb).

One of the smaller species, Hector's dolphin, has been...

generally only produce a single offspring which stays with them for three to six years.

Marine biologists have seen female dolphins, known as cows, having more than one mate but they will...

there is a social order.

4. Fill in the missing words.

Raking is where a dolphin scratches their teeth on another dolphin's skin, leaving light _____ lines which, fortunately, heal rapidly but can leave _____ scars.

5. Which type of dolphin is found in Western Australia?

6. Summarise what you have learnt about dolphins using 35 words or fewer.

7. Do you think a marine biologist plays an important role in sea life reproduction? Explain your answer.

8. Compare pods to human families. How are they similar or different?

Answers

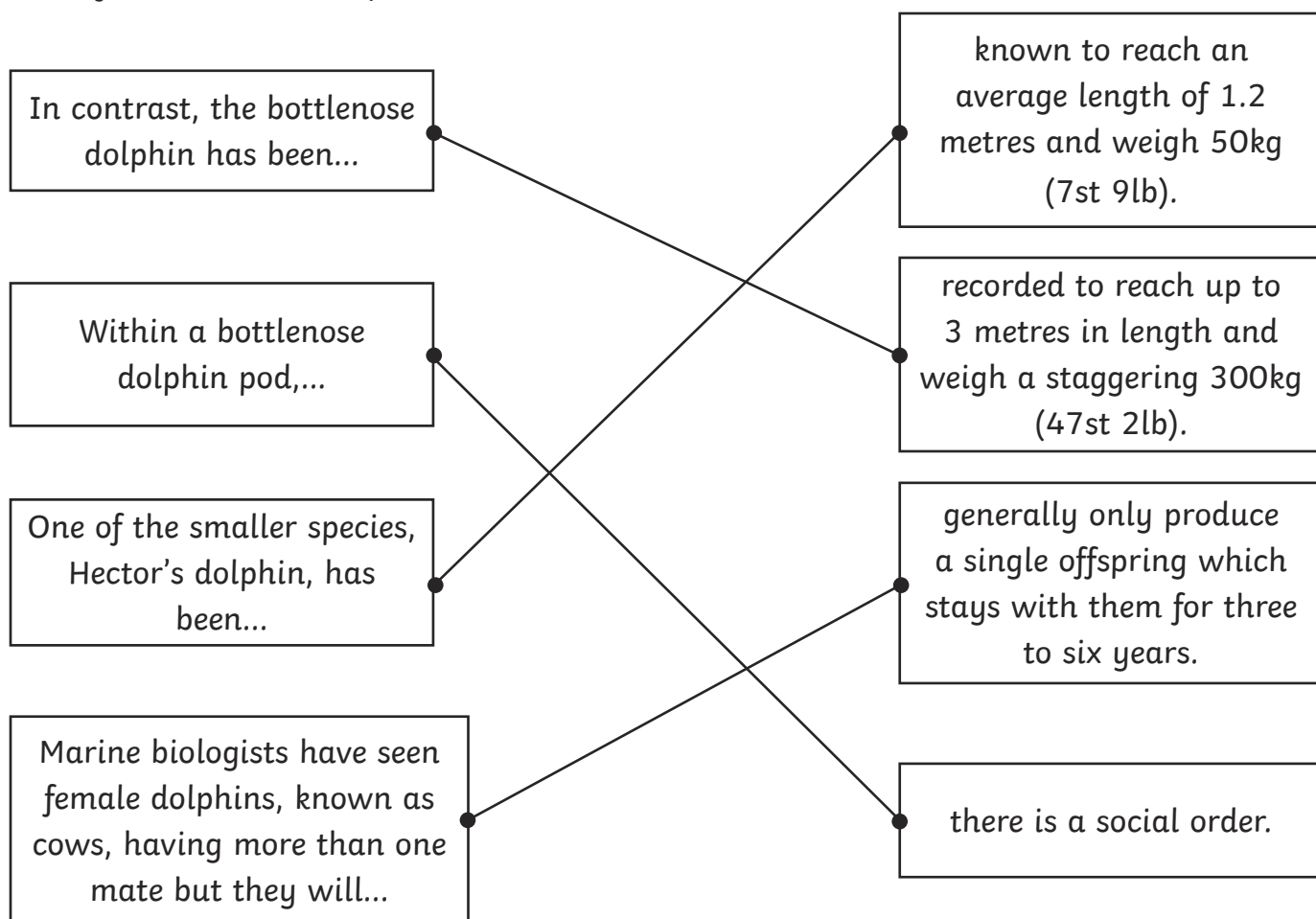
1. Which feature of a dolphin gives the appearance of a permanent smile? Tick one.

- stubby noses
- small teeth
- happy eyes
- curved mouths**

2. Find and copy one word that means the same as 'one of its kind'.

unique

3. Draw **four** lines and complete each sentence.



4. Fill in the missing words.

Raking is where a dolphin scratches their teeth on another dolphin's skin, leaving light **parallel** lines which, fortunately, heal rapidly but can leave **visible** scars.

5. Which type of dolphin is found in Western Australia?

hydroplaning dolphins

6. Summarise what you have learnt about dolphins using 35 words or fewer.

Pupils' own responses, such as: I have learnt that dolphins can be found in oceans, rivers or lakes. Dolphins use echolocation to locate fish in the deep dark ocean.

7. Do you think a marine biologist plays an important role in sea life reproduction? Explain your answer.

Pupils' own responses, such as: Yes, because it is important to document how species exist and be aware if any may become threatened or close to extinction, which would affect reproduction.

8. Compare pods to human families. How are they similar or different?

Pupils' own responses. Accept similarities for family relationships, such as mother and child, a mix of male and female in a family, single or a pair of adult males. Differences could include human families will sometimes contain single or a pair of females.

Dolphins

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Size and Weight

Dolphins vary greatly in size and weight. One of the smaller species, Hector's dolphin, has an average length of 1.2 metres and can weigh 50kg (7st 9lb). In contrast, the bottlenose dolphin has been recorded to reach up to 3 metres in length and weigh a staggering 300kg (47st 2lb).

Behaviour and Reproduction

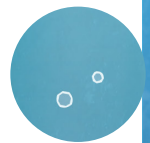
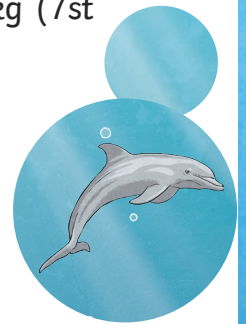
Bottlenose Dolphins

Bottlenose dolphins live in pods which are structured around age, sex and family relationships. Pods can include young male and female dolphins (calves), adult females along with their offspring and adult males, which join a female pod, either alone or in pairs.

Marine biologists have seen female dolphins, known as cows, having more than one mate but they will generally only produce a single offspring which stays with them for three to six years.

Within a bottlenose dolphin pod, there is a social order. Male dolphins will show aggression to establish and maintain dominance by biting, chasing, jaw clapping, smacking their tails on the water, creating bubble clouds with their blowholes, body slamming and raking. Raking is where a dolphin scratches their teeth on another dolphin's skin, leaving light parallel lines which, fortunately, heal rapidly but can leave visible scars for between five and twenty years or sometimes permanently.

Dolphins are very social and emotional creatures, as such, if a bottlenose dolphin is ill or injured, they will either stand by and vocalise to other dolphins to help or physically support the animal and help it to the surface so it can breathe.



Hydroplaning Dolphins

Hydroplaning dolphins can be found in Western Australia. They have adapted their hunting style because the prey of the hydroplaning dolphin swims to shallow waters, only a few centimetres deep, to escape becoming food. However, these dolphins have discovered a way to **hydroplane** across the beach at a high speed, averaging around 16mph, so they can catch their prey.

Spinner Dolphins

Spinner dolphins earned their name because they are able to spin many times as they jump. They do this to communicate, clean themselves or just for fun. Like all dolphins, they use clicks, whistles and touch to communicate with the pod. These pods gather in great numbers and are usually formed as groups of individual dolphins. They can be located in the Pacific Ocean, off the coast of Costa Rica, Central America.



Spinner dolphins are commonly seen with tuna fish as the tuna will rely on the dolphins to locate food, such as lanternfish. This benefits both species and is an example of a symbiotic relationship.

As the spinner dolphins close in on their prey, the pod increases in number, sometimes up to 1000 strong. Within these numbers, they have adapted to create a hunting formation in groups of 20. As it is so dark, the dolphins use **echolocation** to detect the lanternfish in the dark water. They then surround the fish and drive them to the surface, with some dolphins enclosing them from below to stop the prey escaping and returning to the deep. Then, in pairs, they take it in turns to swim through the tightly packed fish, feasting as they go. Dolphins use their teeth to grip prey but they never chew their food. They have two stomachs, similar to a cow; one stomach allows them to store food and the other to digest it. Once they have had their fill of lanternfish, other marine predators, such as stingray, thrive off the remains, making it the perfect hunting strategy.

Glossary

marine biologist - A scientist that studies marine animals or plants.

hydroplane - To glide along the water's surface.

echolocation - A type of sonar.

Questions

1. How many species of dolphins currently exist?

- 57
 28
 36
 61

2. Summarise why you think Hector's dolphins are smaller than bottlenose dolphins in 35 words or fewer.

3. Find and copy **two** actions a bottlenose dolphin could perform to show aggression.

- _____
- _____

4. How long can scars caused by raking be visible?

5. Draw **four** lines and complete each sentence.

However, these dolphins have discovered a way to **hydroplane...**

be found in Western Australia.

They have adapted their hunting style because the prey of the hydroplaning dolphin swims to...

they are able to spin many times as they jump.

Spinner dolphins earned their name because...

shallow waters, only a few centimetres deep, to escape becoming food.

Hydroplaning dolphins can...

across the beach at a high speed, averaging around 16mph.

6. Fill in the missing words.

These pods gather in great numbers and are _____ formed as groups of _____ dolphins.

7. Summarise what you have learnt about dolphins using 35 words or fewer.

8. Why do you think dolphins use raking to maintain control? Explain your reason.

9. Using the text, compare pods to human families. How are they similar or different?

Answers

1. How many species of dolphins currently exist?

- 57
- 28
- 36
- 61

2. Summarise why you think Hector's dolphins are smaller than bottlenose dolphins in 35 words or fewer.

Pupils' own responses, such as: Hector's dolphins may not have such a complex pod structure which helps protect them from predators and also help to hunt for prey. Therefore, they may eat less prey over a lifetime which could stunt their growth.

3. Find and copy **two** actions a bottlenose dolphin could perform to show aggression.

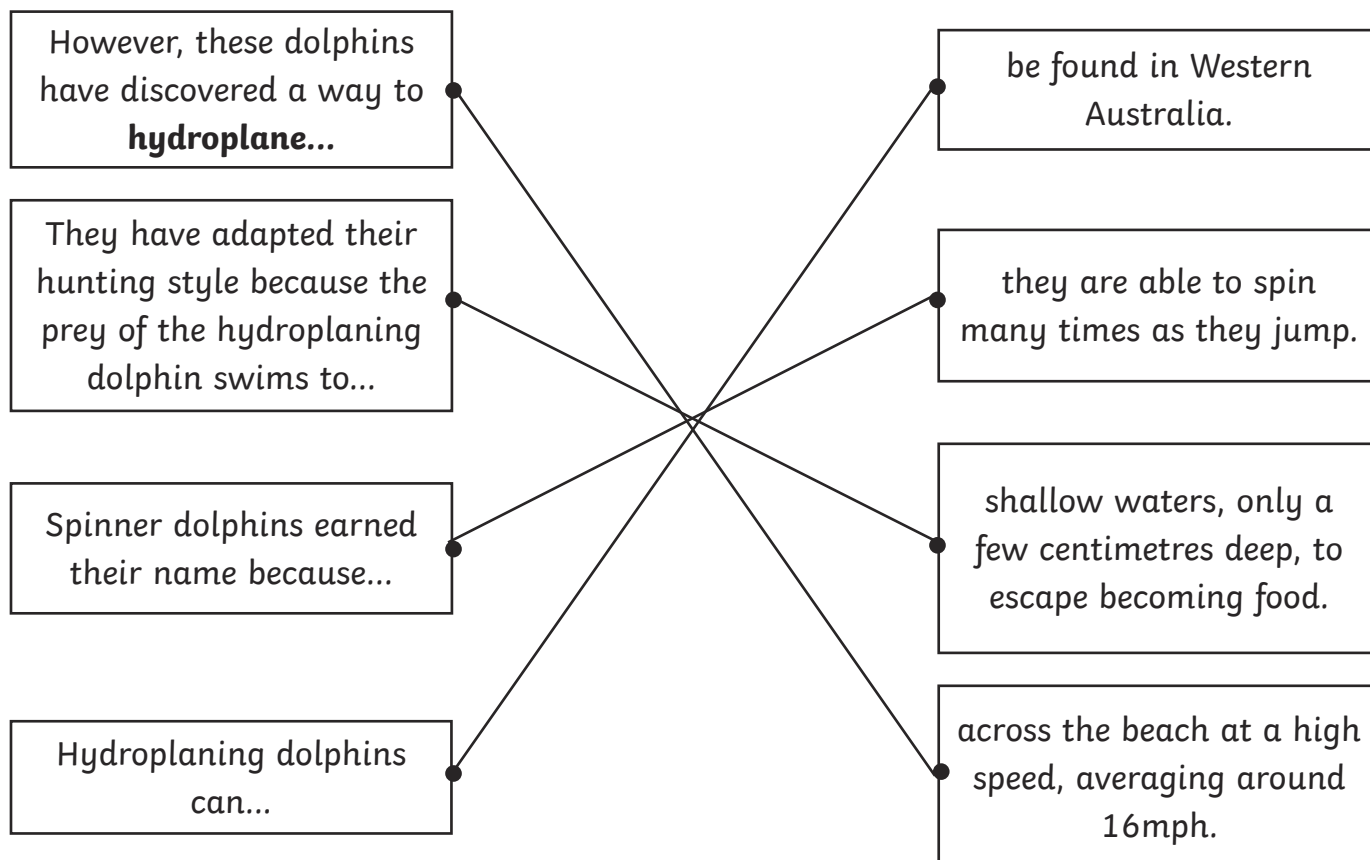
Accept any two of the following:

- **biting**
- **chasing**
- **jaw clapping**
- **smacking their tails on the water**
- **creating bubble clouds with their blowholes**
- **body slamming**
- **raking**

4. How long can scars caused by raking be visible?

Raking scars can be visible between five and twenty years or sometimes permanently.

5. Draw **four** lines and complete each sentence.



6. Fill in the missing words.

These pods gather in great numbers and are **usually** formed as groups of **individual** dolphins.

7. Summarise what you have learnt about dolphins using 35 words or fewer.

Pupils' own responses, such as: I have learnt that dolphins can be found in oceans, rivers or lakes. Dolphins use echolocation to locate fish in the deep dark ocean.

8. Why do you think dolphins use raking to maintain control? Explain your reason.

Pupils' own responses, such as: I think dolphins use raking to maintain control because it leaves scars and as they are emotional marine animals it could affect the dolphins mentally. Therefore, allowing the dominant dolphin to gain control.

9. Using the text, compare pods to human families. How are they similar or different?

Pupils' own responses will vary. Answers should include links to the text such as, but not limited to:

Similarities - some associations (mothers and offspring living together or young male and female mix), an order of hierarchy or helping injured friends or family.

Differences - offspring leaving mother age 6 or adult females also live alone or in pairs.

Dolphins

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Size and Weight

Dolphins vary greatly in size and weight. One of the smaller species, Hector's dolphin, has an average length of 1.2 metres and weighs 50kg (7st 9lb). In contrast, the bottlenose dolphin has been recorded to reach up to 3 metres in length and weigh a staggering 300kg (47st 2lb).

Behaviour and Reproduction

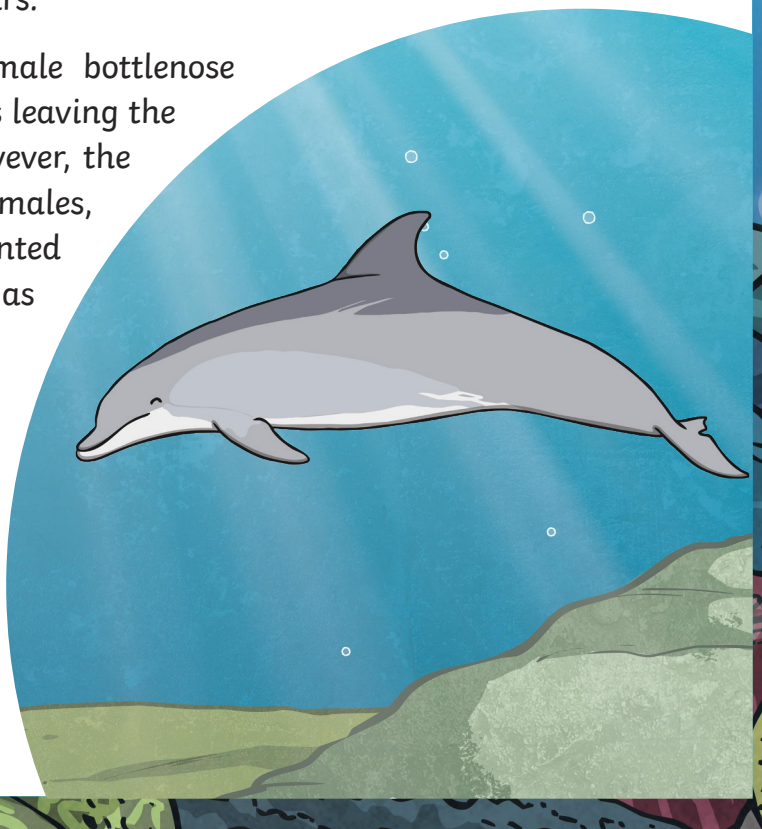
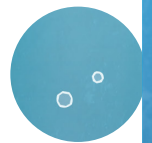
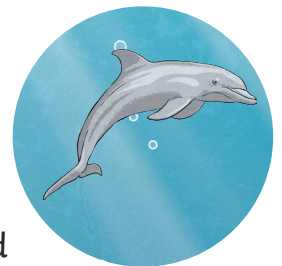
Bottlenose Dolphins

Bottlenose dolphins live in pods which are structured around age, sex and family relationships. Pods can include young male and female dolphins (calves), adult females along with their offspring and adult males, which join a female pod, either alone or in pairs.

Marine biologists have seen female dolphins, known as cows, having more than one mate but they will generally only produce a single offspring which stays with them for three to six years.

The bonds between male and female bottlenose dolphins are short lived, with males leaving the mother to raise the calf alone. However, the bond between two or three adult males, known as bulls, have been documented to be very strong and last as long as 20 years.

Within a bottlenose dolphin pod, there is a hierarchy. Male dolphins will show aggression to establish and maintain dominance by biting, chasing, jaw clapping, smacking their tails on the water, creating bubble clouds with their blowholes, body slamming and



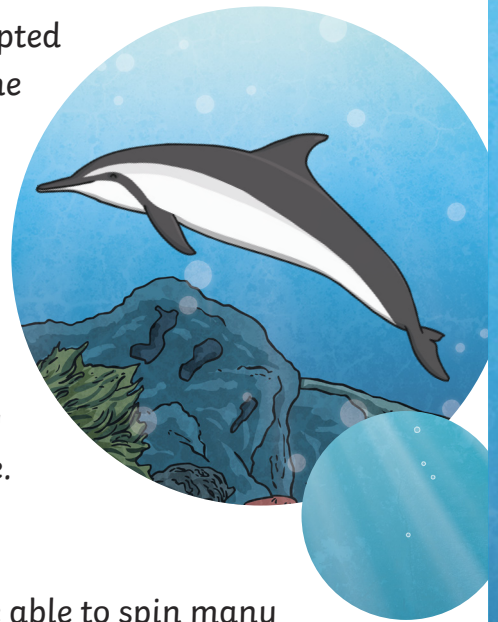
raking. Raking is where a dolphin scratches their teeth on another dolphin's skin, leaving light parallel lines which, fortunately, heal rapidly but can leave visible scars for between five and twenty years or sometimes permanently.

Dolphins are very social and emotional creatures, as such, if a bottlenose dolphin is ill or injured, they will either stand by and vocalise to other dolphins to help or physically support the animal and help it to the surface so it can breathe.

Hydroplaning Dolphins

Hydroplaning dolphins can be found in Western Australia.

They are incredibly intelligent and have adapted their hunting style. This is because the prey of the hydroplaning dolphin swims in shallow waters, only a few centimetres deep, to escape becoming food. However, these dolphins have discovered a way to hydroplane (glide along the water's surface) across the beach at a high speed, averaging around 16mph. Accuracy is key as they glide to within centimetres of the water's edge and risk becoming stranded on the shore (beached) with a wrong move.



Spinner Dolphins

Spinner dolphins earned their name because they are able to spin many times as they jump. They do this to communicate, clean themselves or just for fun. Like all dolphins, they use clicks, whistles and touch to communicate with the pod. Spinner dolphin pods gather in great numbers and are usually formed as groups of individual dolphins. They can be located in the Pacific Ocean, off the coast of Costa Rica, Central America.

Spinner dolphins are commonly seen with tuna fish as the tuna will rely on the dolphins to locate food, such as lanternfish. One of the most numerous fish on the planet, these glowing creatures live in the dark depths of the ocean during the day and by the surface at night – this is when the dolphins strike.

As the spinner dolphins close in on their prey, the pod increases in number, sometimes up to 1000 strong. Within these numbers, they have adapted to create a hunting formation with 20 dolphins circling the school of fish. As it is so dark, the dolphins use echolocation (a type of sonar) to detect the lanternfish and communicate. They then surround the fish and drive them to the surface,

with some dolphins enclosing them from below to stop the prey escaping and returning to the deep. They then take it in turns to swim through the group of fish in pairs and feed as they go, joined by the tuna fish. Dolphins use their teeth to grip prey but they never chew their food. They have two stomachs, similar to a cow; one stomach allows them to store food and the other to digest it. Once they have had their fill of lanternfish, other marine predators, such as stingray, thrive off the remains, making it the perfect hunting strategy.

Spinner dolphins will also swim alongside other species as their size of number will intimidate predators, such as sharks, and increase their protection. This benefits both species and is an example of a symbiotic relationship.

Questions

1. Dolphins belong to which animal family?

- seal
- otter
- whale
- lanternfish

2. Draw **four** lines and complete each sentence.

In contrast, the bottlenose dolphin has been recorded to reach...

species of dolphins found in oceans, rivers or lakes around the world – each with unique identities and characteristics.

There are currently an impressive 36...

an average length of 1.2 metres and weigh 50kg (7st 9lb).

One of the smaller species, Hector's dolphin, has been documented to reach...

up to 3 metres in length and weigh a staggering 300kg (47st 2lb).

According to marine biologists, they are...

socially skilled, intelligent and emotional marine animals that can live for up to fifty years.

3. In the first paragraph, the author says that marine biologists have observed dolphins to be socially skilled, intelligent and emotional marine animals. Discuss how this is similar to humans.

4. Using what you know about bottlenose dolphins, why do you think they are larger than Hector's dolphins?

5. Find and copy one word which means 'a system in which members are ranked against status'.

6. Why do you think dolphins use raking to maintain control? Use the text to support your answer.

7. Fill in the missing words.

Dolphins are very social and emotional creatures, as such, if a bottlenose dolphin is ill or injured, they will either stand by and _____ to other dolphins to help or _____ support the animal and help it to the surface so it can breathe.

8. Why have hydroplaning dolphins adapted their unique hunting technique?

9. Compare the hydroplaning dolphin and spinner dolphin hunting techniques.

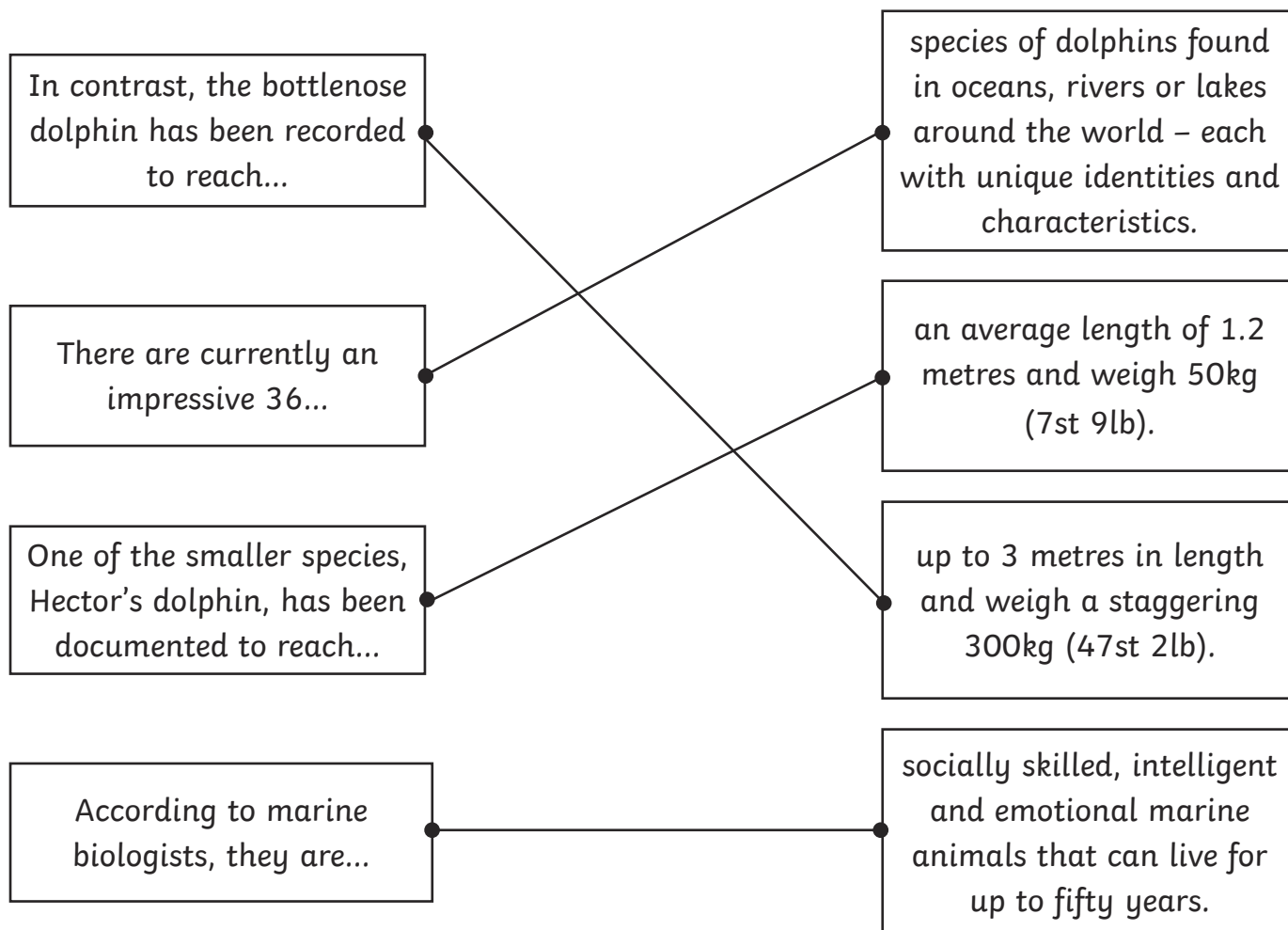
10. Summarise what you have learnt about dolphins using 35 words or fewer.

Answers

1. Dolphins belong to which animal family?

- seal
- otter
- whale**
- lanternfish

2. Draw **four** lines and complete each sentence.



3. In the first paragraph, the author says that marine biologists have observed dolphins to be socially skilled, intelligent and emotional marine animals. Discuss how this is similar to humans.

Pupils' own responses, such as: Humans are socially skilled as we are able to communicate with other humans. Humans are intelligent as we are able to develop new skills and extend our knowledge. Humans are also emotional animals and we feel empathy for people we care about.

4. Using what you know about bottlenose dolphins, why do you think they are larger than Hector's dolphins?

Pupils' own responses, such as: I think bottlenose dolphins are larger because they have a complex pod system which will help protect them against predators. Bottlenose dolphins also have a unique hunting technique which helps them catch a high volume of prey compared to Hector's dolphins, which may catch less prey.

5. Find and copy one word which means 'a system in which members are ranked against status'.

hierarchy

6. Why do you think dolphins use raking to maintain control? Use the text to support your answer.

Pupils' own responses, such as: I think dolphins use raking as a dominance strategy to maintain control because it leaves scars which would affect the dolphins emotionally. Therefore, allowing the dominant dolphin to gain control.

7. Fill in the missing words.

Dolphins are very social and emotional creatures, as such, if a bottlenose dolphin is ill or injured, they will either stand by and **vocalise** to other dolphins to help or **physically** support the animal and help it to the surface so it can breathe.

8. Why have hydroplaning dolphins adapted their unique hunting technique?

The prey is close to the beach making it difficult to be caught.

9. Compare the hydroplaning dolphin and spinner dolphin hunting techniques.

Pupils' own responses, such as: The hydroplaning dolphins and spinner dolphins have very different hunting techniques. The hydroplaning dolphins glide along the shallow water's surface onto the fish, whereas the spinner dolphins circle their prey in deep water, driving the fish upwards whilst staying below, like a net.

10. Summarise what you have learnt about dolphins using 35 words or fewer.

Pupils' own responses, such as: I have learnt that dolphins can be found in oceans, rivers or lakes. Dolphins use echolocation to locate fish in the deep, dark ocean.