

**MY DAY
AT DINGLE
AQUARIUM**



**OCEANWORLD
EXPLORER
NOTEBOOK!**




DINGLE
Oceanworld
MARABEO



discover

This book belongs to:

.....

Age:

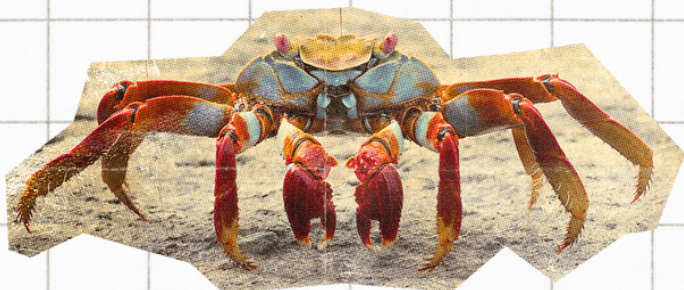
.....

Date of visit:

.....

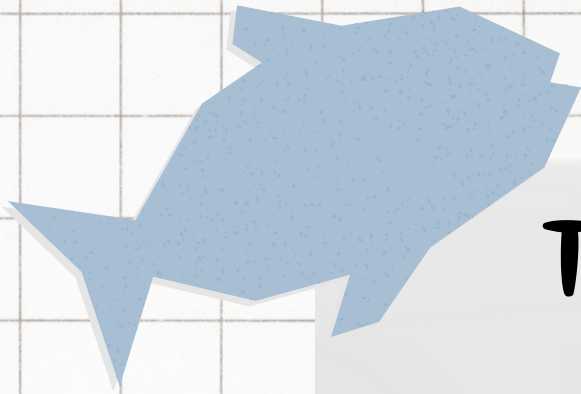


**HI OCEAN EXPLORERS! ARE YOU READY TO
DIVE INTO AN AQUATIC ADVENTURE? READ
ALONG & COMPLETE THE ACTIVITIES TO LEARN
MORE ABOUT YOUR FAVOURITE WILDLIFE &
FRIENDS AT DINGLE OCEANWORLD**



adventure

explore



WELCOME TO THE AMAZON!



The ABCs of the Amazon River:
A is for Amazing
it's the second longest river, after the Nile in Africa!
B is for Big
it stretches over 6,400 km (4,000 mi) & is the largest river in the world by volume
C is for Cross-Country
the river & it's tributaries run through 10 different countries before emptying into the Atlantic!

Did you know that the **black pacu** (*Colossoma macropomum*) is like the underwater gardener of the Amazon? These amazing fish munch on fruits & nuts, helping to spread seeds & keep the rainforest healthy! Their impressively strong teeth, used for crushing hard foods, look like your molars!

AQUARIST TALK: DON'T FORGET TO EAT YOUR VEGGIES! OUR PACU EAT A WIDE RANGE OF FRUIT & VEGGIES TO STAY HEALTHY



Now, don't let the fierce reputation of **red-bellied piranhas** (*Pygocentrus nattereri*) scare you off! Despite their sharp teeth & fast attacks, piranhas are mostly scavengers, feeding on smaller fish & other aquatic creatures. Our little piranha friends are essential to maintaining the balance of the Amazon River ecosystem.



Ripsaw catfish (*Oxydoras niger*) are one of the many catfish species of the Amazon. With a bulky build & fierce set of armor, lined with thorny scales on both sides, this flashy defense system is not to be messed with!



My favorite Amazon fish:

DISCOVER ASIAN SMALL-CLAWED OTTERS



Asian small-clawed otters (*Aonyx cinereus*) are native to the wetlands & mangrove swamps of Southeast Asia. They love to make their homes near rivers & ponds, where they can swim, play, & find plenty of delicious snacks.



Otters are expert hunters. Their **carnivore** diet mainly consists of small fish, crustaceans, & insects.

At Oceanworld our romp is fed many different types of fish, crab, beef (meatballs!) mussels & clams. But you may see them digging in the grass for worms, their favourite treat between feeds!

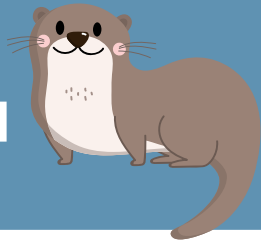
AQUARIST TALK:

GROUPS OF OTTERS ARE CALLED ROMPS OR FAMILIES ON LAND, & MAY BE CALLED A RAFT WHEN IN WATER!

Circle the otters favourite foods!



These chatterboxes have over a dozen distinct **vocalisations** for communication! They use various cues like body language, pheromones (scent) & grooming in addition to sounds to convey messages such as summoning friends, greetings, & sounding alarms.



Help Mekong the otter join his romp for dinner & avoid the man made hazards!



Unfortunately, otters face challenges in the wild. From **habitat destruction**, **water pollution**, & **overfishing**, to the illegal pet trade, man made hazards are seriously impacting these unique creatures!



HUMBOLDT PENGUINS



Spheniscus humboldti



These penguins call the rocky shores & islands of **Chile & Peru** home. They are excellent swimmers & spend much of their time hunting for fish in the cool, nutrient-rich waters of the **Humboldt Current**, which they are named after.

BEAT THE HEAT!

Humboldt penguins have evolved special **adaptations** to cope with heat.

The exposed pink patches of skin around their eyes & at the base of their bills help release heat, cooling the birds down in hot summer weather.



AQUARIST TALK:



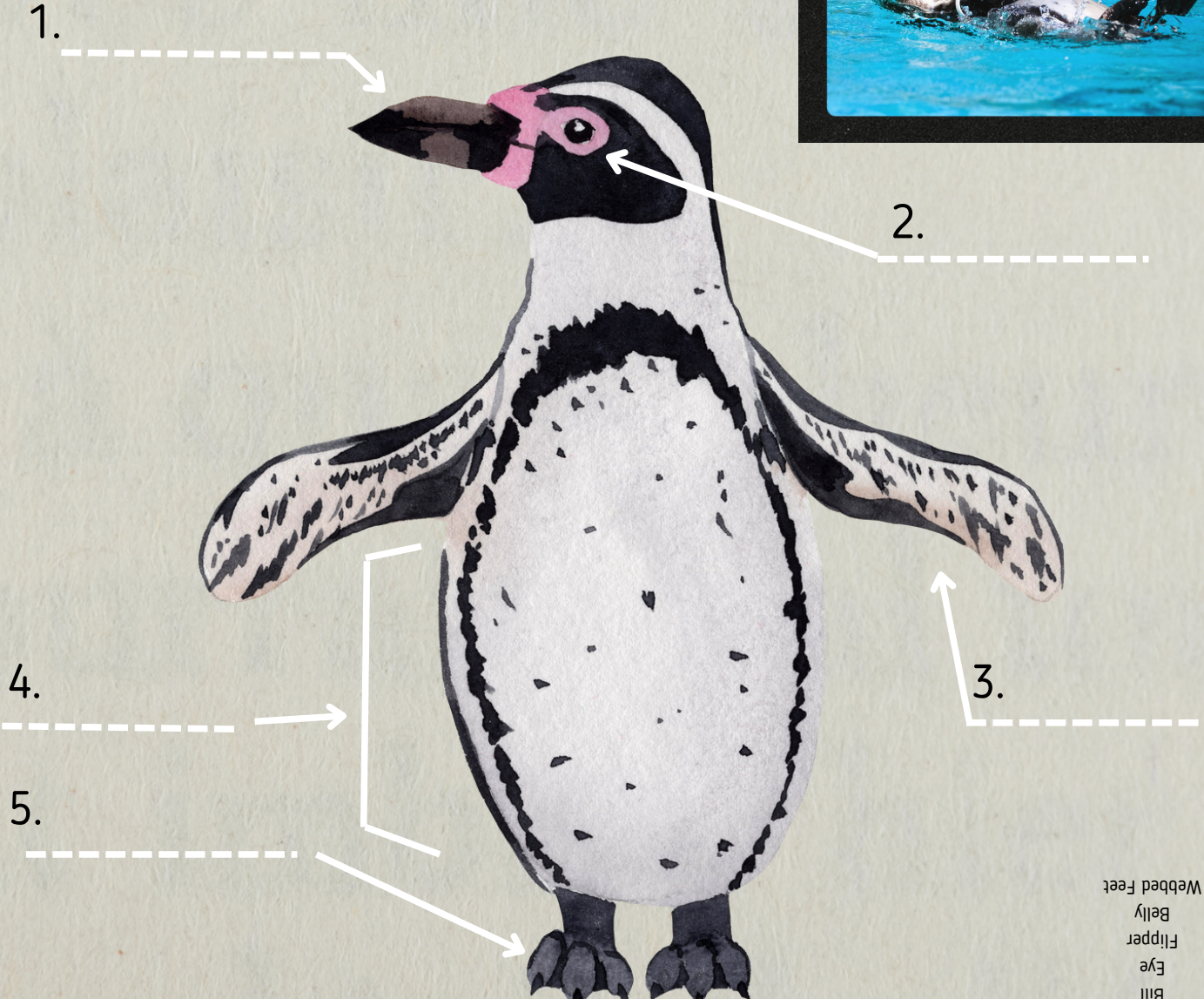
THEY COMMUNICATE WITH EACH OTHER USING LOUD BRAYING SOUNDS, SIMILAR TO A DONKEY!



Humboldt Penguins are facing challenges because of humans! Such as **climate change**, **habitat loss** & **overfishing**. It's important for people to help by protecting their environment & making sustainable choices to ensure these wonderful birds continue to thrive in the wild.



HOW WELL DO YOU KNOW PENGUIN ANATOMY? LABEL BODY PARTS IN THE SPACES PROVIDED!

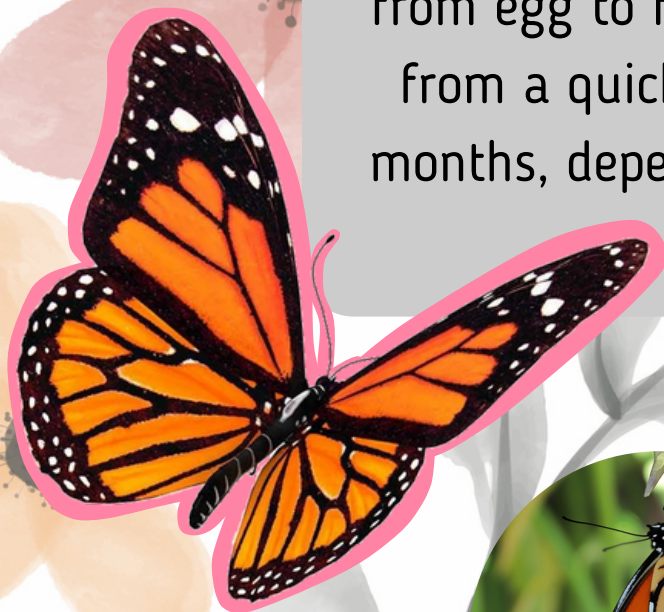


- 5. Webbed Feet
- 4. Belly
- 3. Flipper
- 2. Eye
- 1. Bill

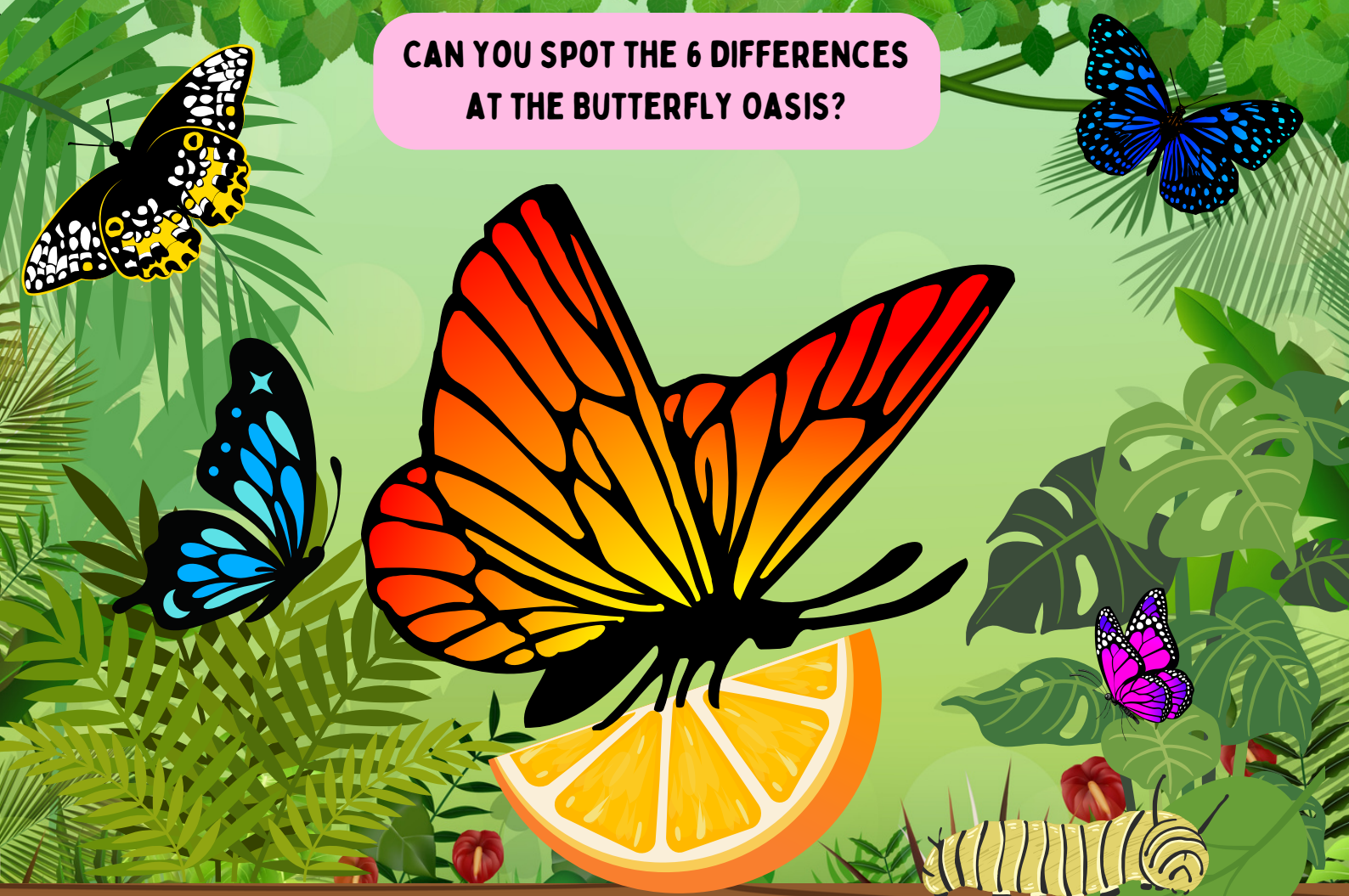
THE LIFECYCLE OF A BUTTERFLY



Eggs are like tiny surprises left by butterfly moms on special plants. Once they hatch, cue the **caterpillar** show - all they do is eat, grow, & repeat! Then comes the **Pupa** (chrysalis) stage in which a magical transformation happens in the cocoon, where they turn themselves into butterfly soup before emerging as magnificent **adults**. The journey from egg to fluttering beauty, lasts from a quick few weeks to a few months, depending on the butterfly species!



CAN YOU SPOT THE 6 DIFFERENCES
AT THE BUTTERFLY OASIS?



CICHLIDS OF THE AFRICAN GREAT LAKES

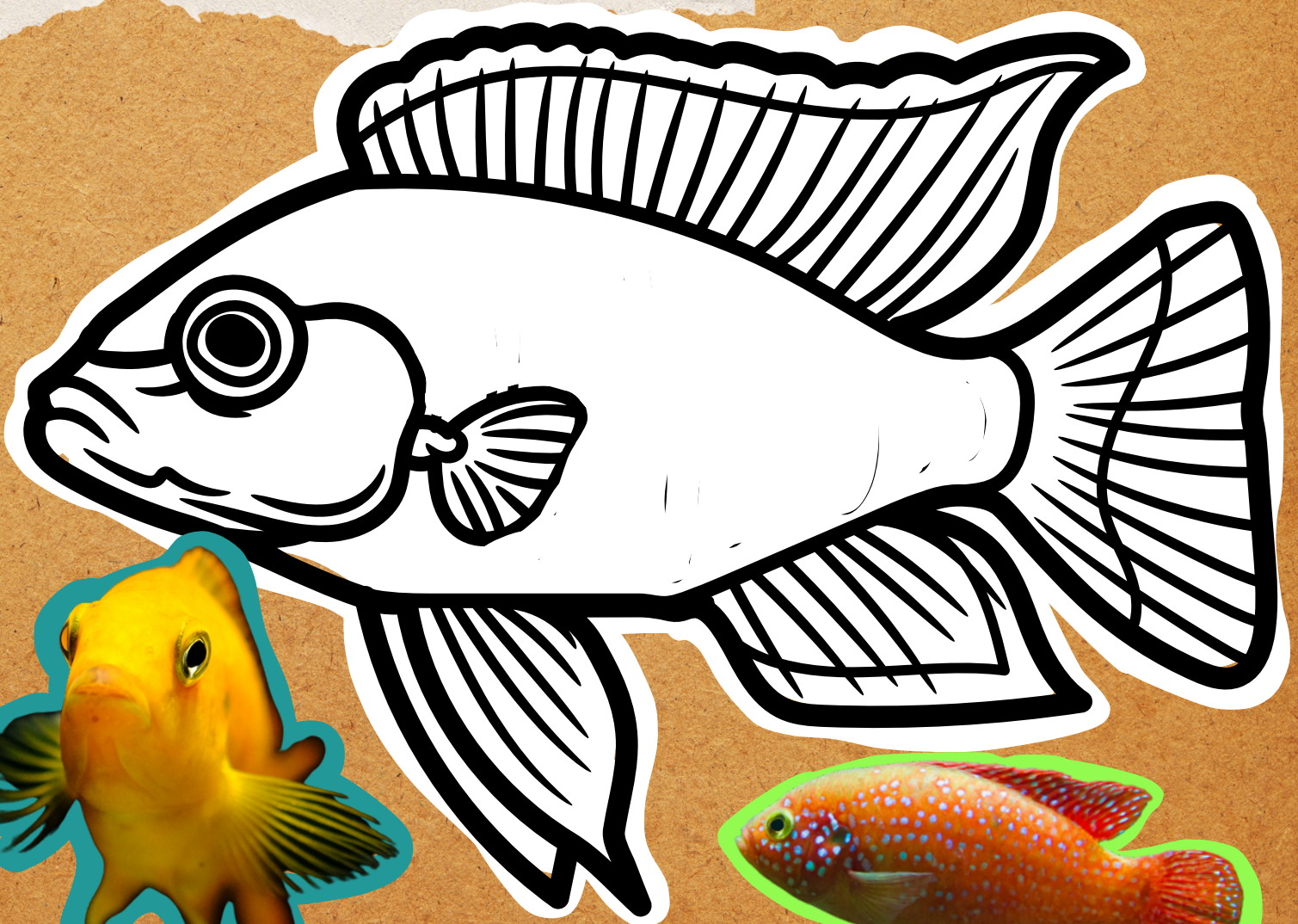


Hey, underwater explorers! Did you know that in the amazing Great Lakes of Africa, especially in the huge Lake Malawi (it's the 9th largest in the world!), there are more than 1000 incredible cichlid species? These clever fish have their own adaptations & behaviours - some love rocking it on rocky shores, some prefer chilling in sandy spots, & others totally embrace the mud! It's like they're the champions of adaptability. And here's the coolest part - these cichlids come in all sorts of jaw-dropping colours, turning the African Great Lakes into a bustling, vibrant underwater community.



Cichlidae

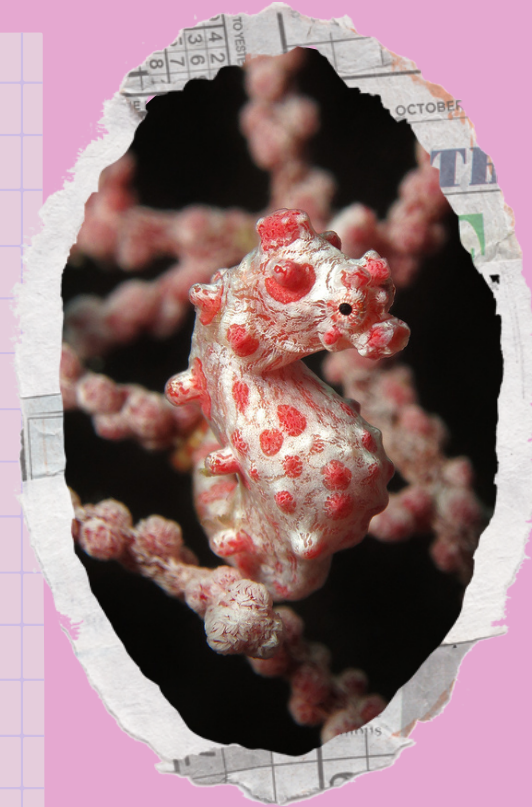
COLOUR & ADD STRIPES, DOTS OR ANY DESIGNS TO CREATE A CICHLID SPECIES OF YOUR OWN!



TINY BUT MIGHTY SEAHORSES



Seahorses (*Hippocampus*) are not your typical fish! They have flesh-covered bony plates in place of scales, eyes that operate independently, & **prehensile tails**, like monkeys. Seahorses can be found in oceans all around the world, from warm tropical waters to cooler temperate seas. They often make their homes near coral reefs, seagrasses, or mangroves, where they can hide due to their great camouflage skills & cling to structures.

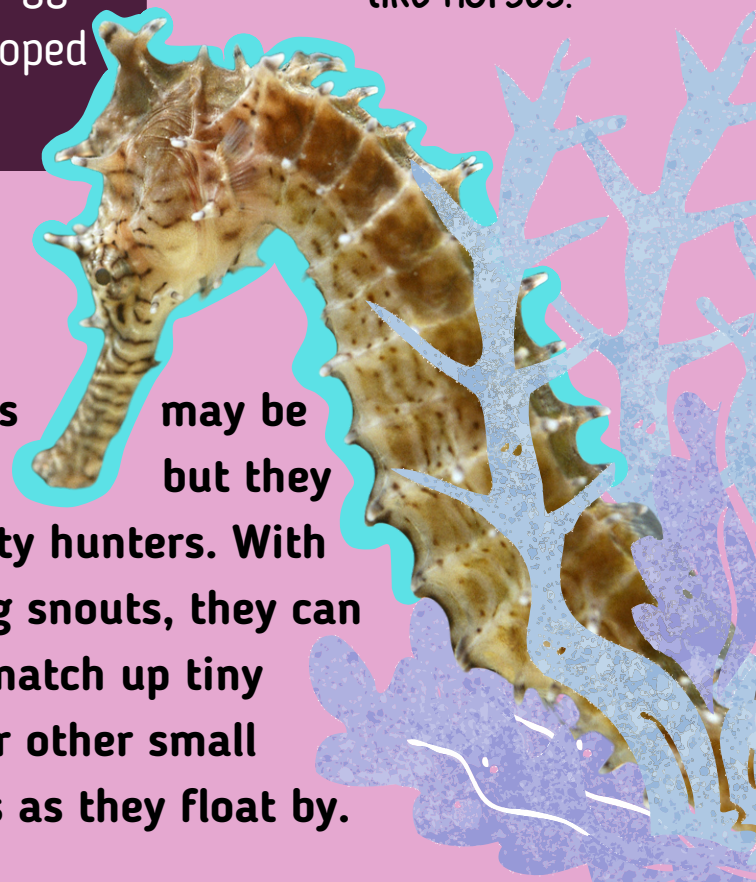


Did you know that seahorse dads are extraordinary parents? It's true! Unlike most animals, the female seahorse puts the eggs in the males '**brood pouch**' until developed & he gives birth to the babies.

AQUARIST TALK-
Groups of seahorses are called a herd, just like horses!



Seahorses may be small, but they are mighty hunters. With their long snouts, they can quickly snatch up tiny shrimp or other small creatures as they float by.

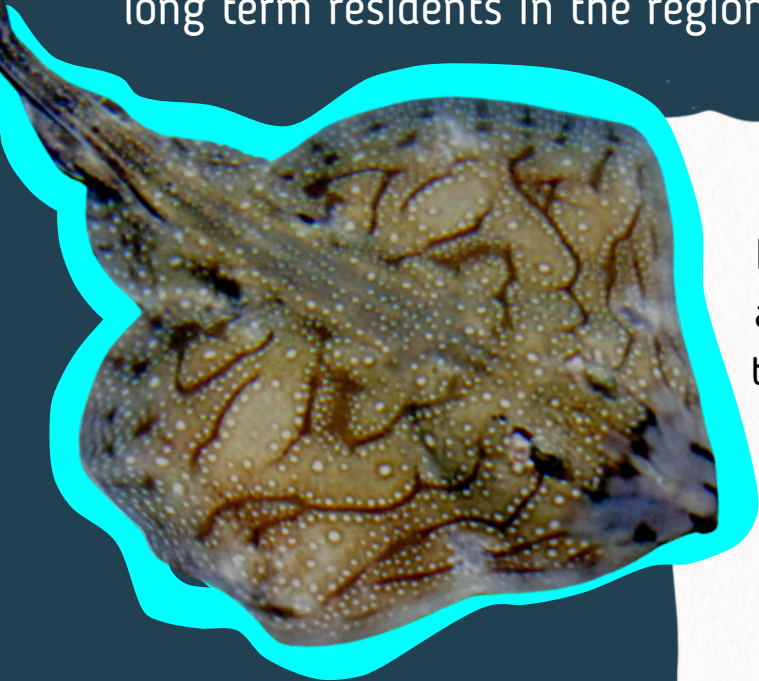


ELASMOBRANCHS: SHARKS, SKATES, & RAYS, OH MY!

Elasmobranchs are a fascinating group of marine creatures that include **sharks, rays, & skates**. These incredible animals have **cartilaginous skeletons**, which are made of flexible & lightweight cartilage (like the tip of your nose & ears!) rather than hard bone.



39 shark species have been documented in Irish waters! Some are migratory & only pass through at certain times of the year like the second largest fish in the world the **basking shark** (*Cetorhinus maximus*), but many are long term residents in the region.



Roc dústriótha –
undulate ray as Gaeilge



Our coastline is also a hotspot for different kinds of rays & skates. Can you believe there are 33 different species swimming around in the ocean near Ireland? Even though some of them have 'ray' in their name, they're all skates because they lay eggs (**oviparous**), while true rays give birth to live young (**viviparous**).

The undulate ray (*Raja undulata*) you got to check out in Oceanworld's Touch Tank is **endangered**, not just in Ireland but all over the world! Some adventurous rays have been spotted south to Mizen Head & north to the Aran Islands, but most are found in Tralee Bay! Nearly 99% of them tagged between 1972-2014 came from that population.

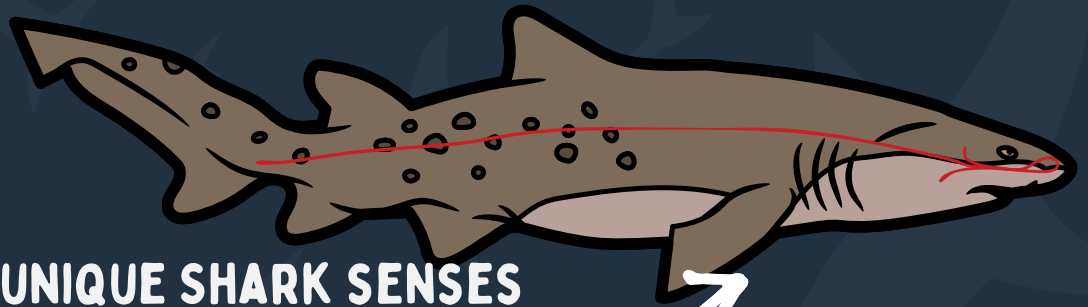
Did you know sharks are older than dinosaurs? They've been patrolling our oceans for **400 million years** & have developed into **more than 500 different species!**



Oceanworld is home to a variety of shark species! Including the large & ferocious looking **sand tiger sharks** found in tropical/temperate waters & smaller native species including **lesser-spotted dogfish** (*Scyliorhinus canicula*) & **greater-spotted dogfish** (*Scyliorhinus stellaris*).



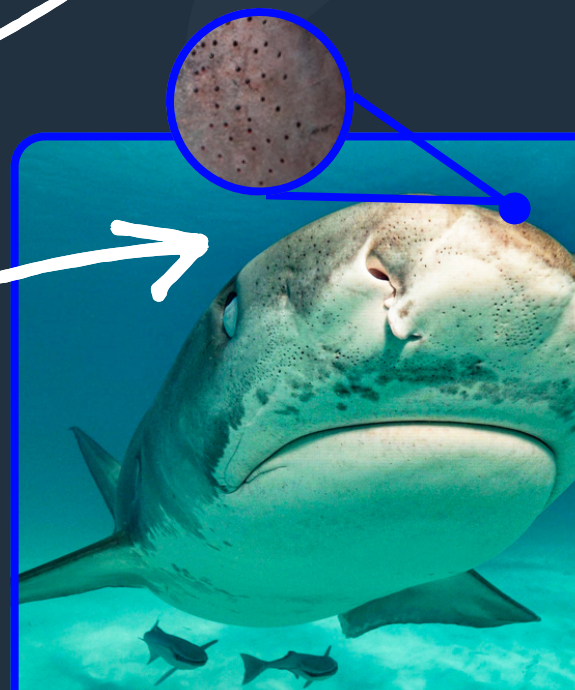
Sand tigers (*Carcharias taurus*) are unique being the only sharks that come to the surface to **gulp air**, but not to breathe! The air ends up in its stomach, making the shark more **buoyant**, so it can float motionless in the water column as it watches for prey.



AQUARIST TALK: UNIQUE SHARK SENSES

PRESSURE CHANGES: The **lateral line** (found in all fish) stretches from snout to tail & alerts sharks to pressure changes, giving spatial awareness & navigational abilities.

ELECTRORECEPTION: The **ampullae of Lorenzini** are tiny jellyfilled pores located on a shark's snout that help it sense electrical signals in the water, including prey & the Earth's geomagnetic field



MARVELOUS SEA TURTLES



Loggerhead
Caretta caretta

Sea turtles are migratory species that interact with a diverse array of marine plants & animals. There are 7 species of sea turtle found all over the world, & females of all species return to the same beach that they hatched on to lay their own eggs.

One of the most recognizable features of sea turtles is their shell, which acts like a super-strong shield! This shell, also known as a **carapace**, helps protect them from predators & the challenges of the deep sea. It's like carrying a cozy home on their backs wherever they go.



Leatherback hatchling
Dermochelys coriacea

Dinner Time!

Loggerhead hatchlings are **omnivores**, eating both plant & animal material. Adults are mainly meat-eating **carnivores**, able to consume hard shelled prey like crabs & mollusc due to their large heads & strong jaws, they also dine upon jellyfish, some types of fish & squid.



Sea turtles are excellent navigators, using the Earth's magnetic field to find their way across vast oceans. Some species even travel thousands of miles during their epic migrations. It's like they have their own underwater GPS system!



Did you know that sea turtles start their life as tiny eggs buried in the sand? Mother turtles carefully dig nests on beaches, lay their eggs, & then cover them up, leaving nature to take its course. When the little turtles hatch, they embark on a daring journey to the sea!



Unfortunately, sea turtles face many challenges, including **habitat loss**, **pollution**, & accidental **capture in fishing gear**. But fear not, young heroes! People around the world are working together to protect these magnificent creatures & ensure they continue to roam our oceans for generations to come. At Oceanworld we nurse sick & injured turtles that wash up on Irish shores back to full health & release them back into the wild where they belong!



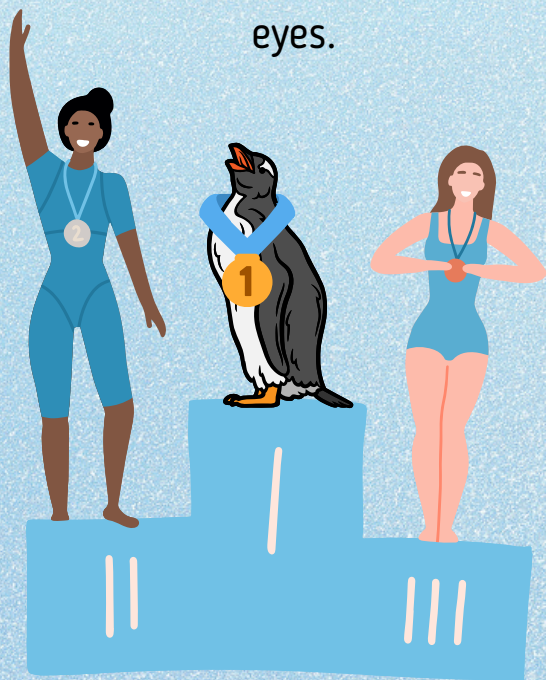
Colour in the giant squid!

This massive cephalopod species dwells in the deep-ocean. Giant squid (*Architeuthis*) can grow to a tremendous size: recent estimates put the maximum size at 12 metres (39 ft). Their diet likely consists of fish, shrimp, other squid, & some might even attack & eat small whales.

GENTOO PENGUINS

Pygoscelis papua

Gentoo penguins, the ultimate divers, call the **Antarctic Peninsula** & nearby icy islands home. Not only do gentoos have the longest tail feathers of any penguin species, but they are distinct for their bright orange beaks, peachy feet & white patch around their eyes.

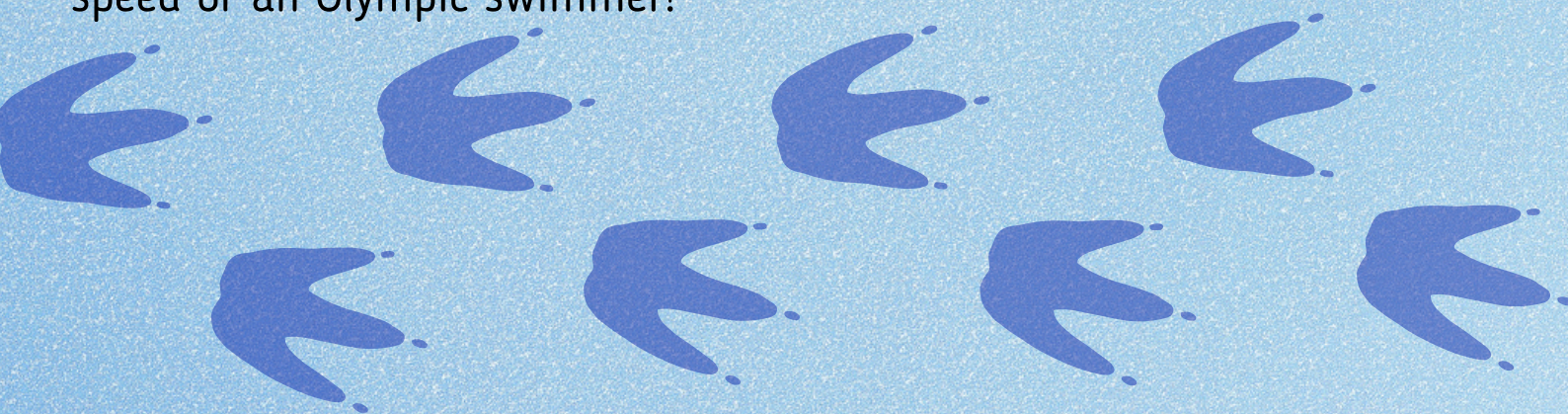


Gentoo penguins are the **fastest** swimming birds! They can dive 450 times a day & swim at speeds of 36 km per hour (22mph). That's 3 times the speed of an Olympic swimmer!

GROUPS OF PENGUINS IN WATER ARE CALLED A RAFT, BUT THOSE MOVING ON LAND ARE A WADDLE! LARGE GROUPS ARE OFTEN CALLED COLONIES OR ROOKERIES.



They have a unique way of getting around on land, called **tobogganing**. They slide on their bellies across the ice & snow, using their flippers to steer.



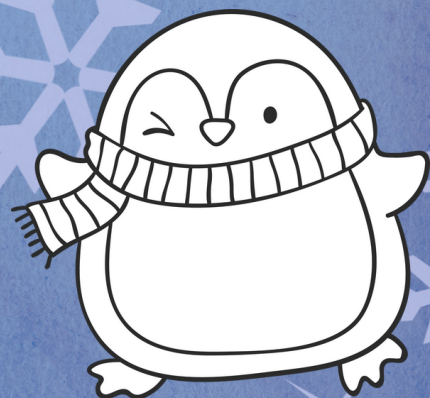
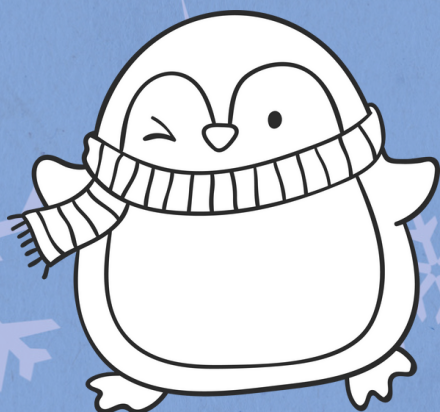
Gentoo penguins mate for life with both parents taking turns to incubate their eggs & caring for their chicks. **Uisce**, named after the Irish word for water, was the first gentoo chick born at Oceanworld! His parents are Sneachta & Fletcher. You can spot him on your next visit to Dingle Aquarium by the tri-coloured arm band (green, white & orange).



HELP THE GENTOO CHICK HATCH FROM THE EGG BY COMPLETING THE MAZE!

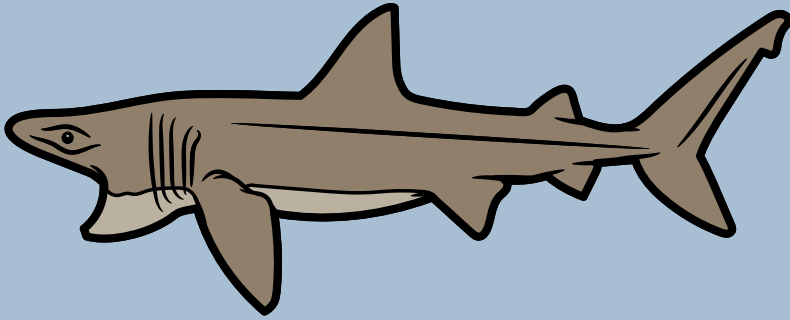


MATCH THE POLAR PENGUINS
DRAW A LINE BETWEEN EACH PAIR OF MATCHING
PENGUINS. THEN HAVE FUN COLOURING THEM IN!

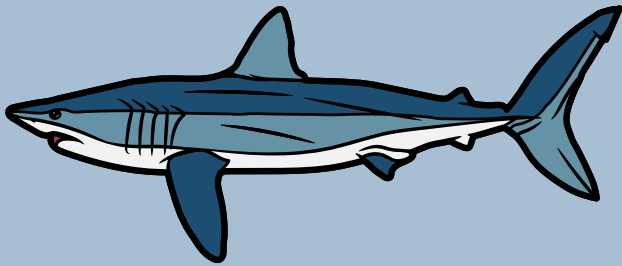


SHADOW MATCH SHARKS IN IRISH WATERS!

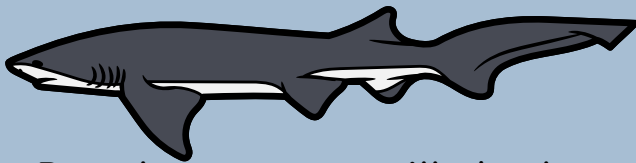
Draw a line to match the shark to the correct silhouette



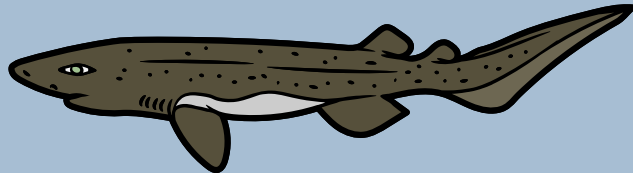
Basking shark (*Cetorhinus maximus*)



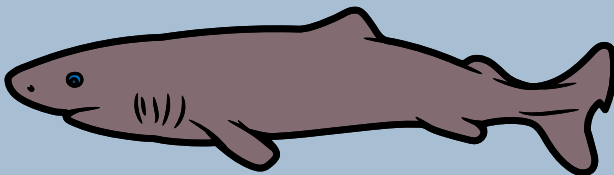
Shortfin Mako (*Isurus oxyrinchus*)



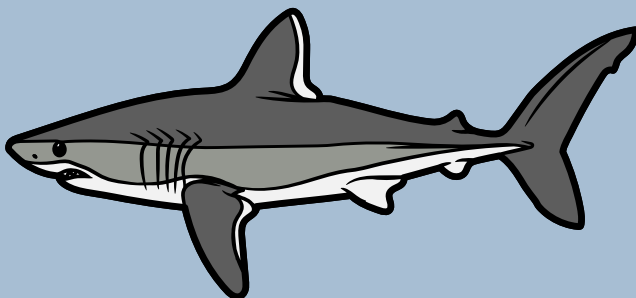
Broadnose seven-gill shark
(*Notorynchus cepedianus*)



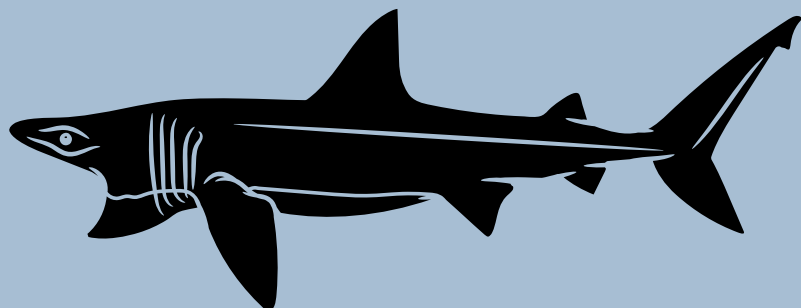
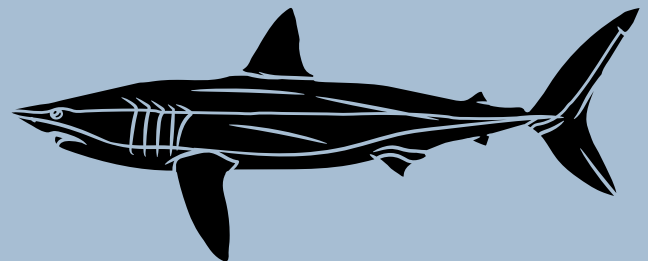
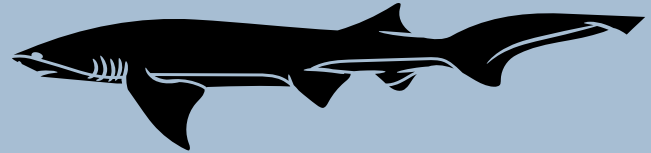
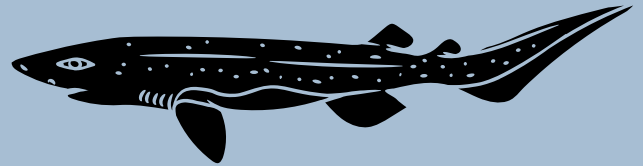
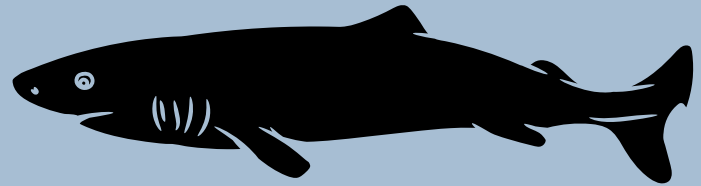
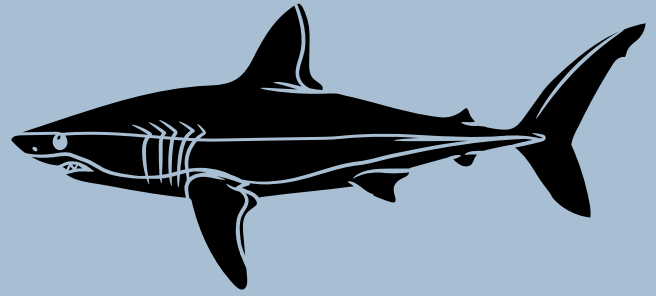
Bramble shark (*Echinorhinus brucus*)



Greenland shark (*Somniosus microcephalus*)

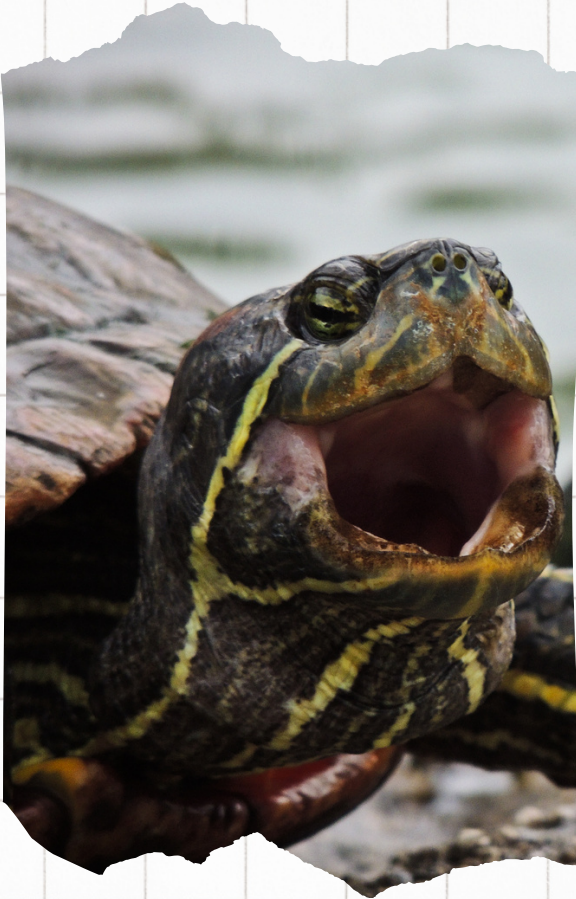


Porbeagle (*Lamna nasus*)

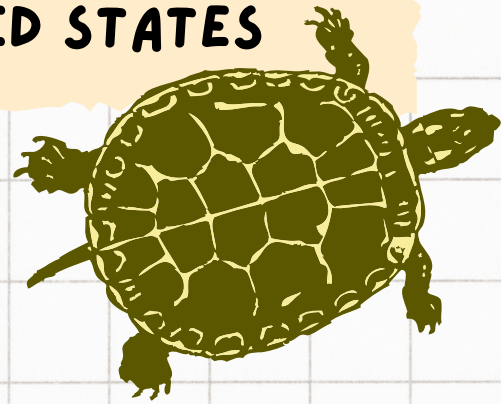


YELLOW-BELLIED SLIDER

Trachemys scripta scripta

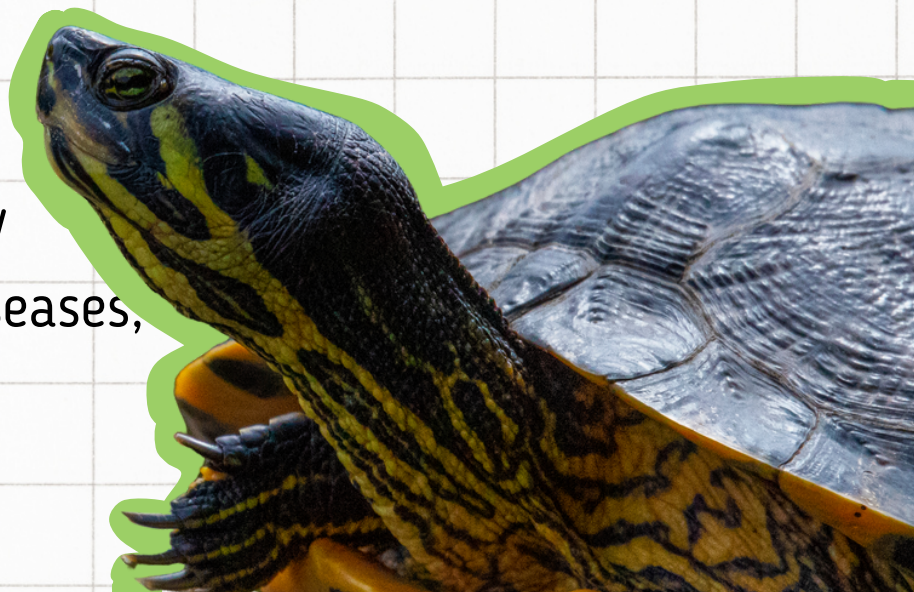


THE YELLOW-BELLIED SLIDER IS A TERRAPIN, A SEMI-AQUATIC, FRESHWATER BASKING TURTLE NATIVE TO THE UNITED STATES



Terrapins have become an **invasive species** in Ireland! Some people bought small, cute hatchlings for pets, but when they grew & became difficult to care for, they were released into local ponds or waterways. Not only is this bad for the native animals in the environment, but also the terrapin! All of the terrapins at Oceanworld are rescued unwanted pets.

When invasive species are introduced to a new area, they can bring diseases, overpopulate, & harm native species.



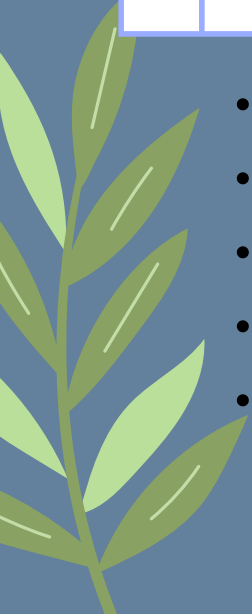
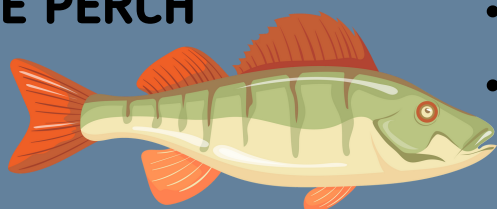
Invasive Species in Ireland-Crossword



A	F	R	I	C	A	N	C	L	A	W	E	D	T	O	A	D
T	W	X	T	E	Z	C	H	P	R	N	Y	Q	E	F	G	K
E	Z	E	B	R	A	M	U	S	S	E	L	U	N	S	A	R
R	M	B	K	Y	A	Q	B	F	O	H	I	Z	C	D	L	O
R	I	V	A	W	H	I	T	E	P	E	R	C	H	E	P	A
A	D	F	J	P	R	M	V	T	Q	X	E	G	U	C	I	C
P	K	I	L	L	E	R	S	H	R	I	M	P	W	E	S	H
I	A	M	E	R	I	C	A	N	B	U	L	L	F	R	O	G
N	L	O	R	U	D	D	Y	D	U	C	K	X	P	M	V	C

- TERRAPIN
- AFRICAN CLAWED TOAD
- AMERICAN BULLFROG
- CHUB
- WHITE PERCH

- ROACH
- TENCH
- DACE
- RUDDY DUCK
- KILLER SHRIMP
- ZEBRA MUSSEL



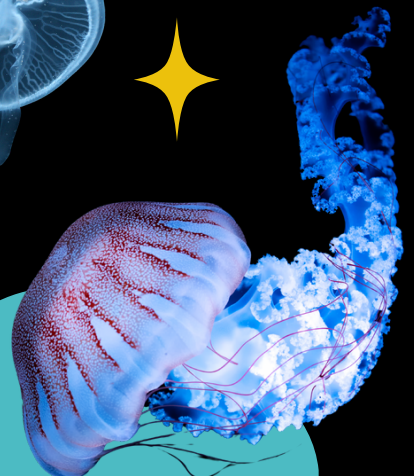
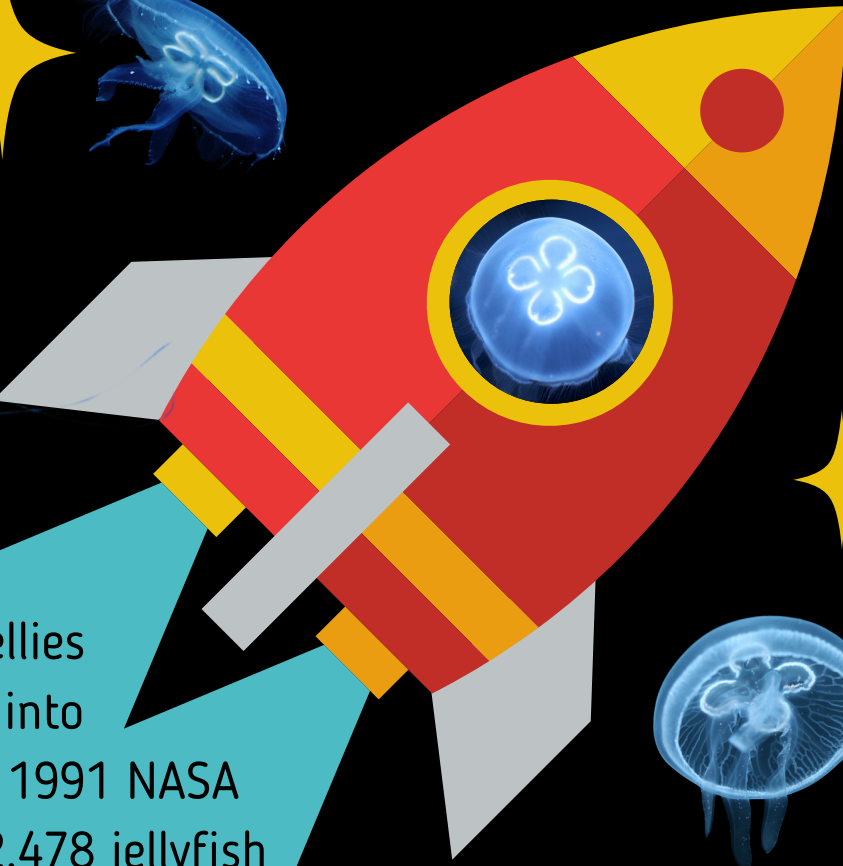
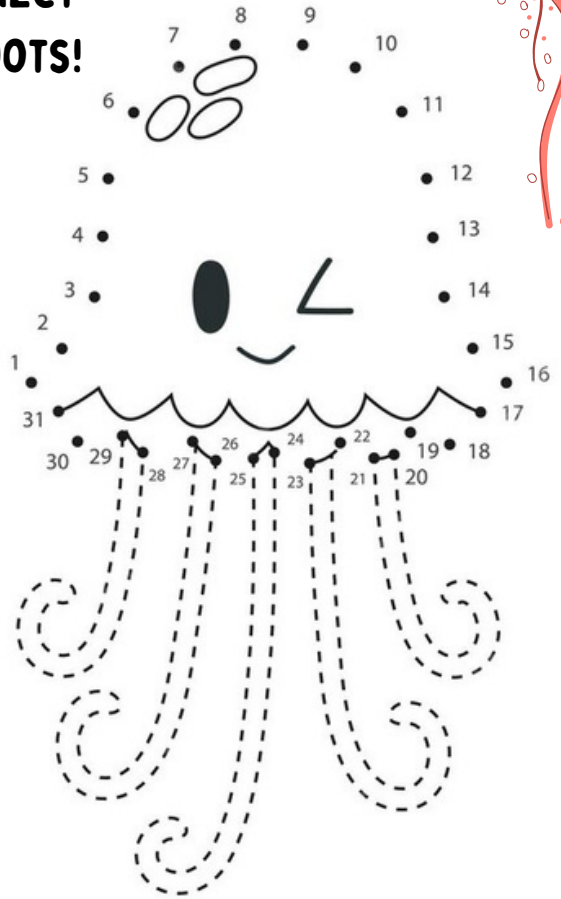
SMUGLAIRE ROIN

the word for jellyfish as
Gaeilge means 'seal snot!'

Jellyfish (*Scyphozoans*) are not really fish – they're **invertebrates!**

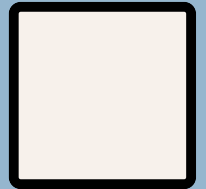
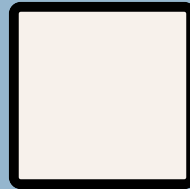
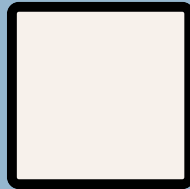
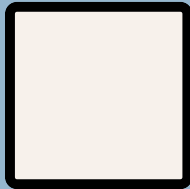
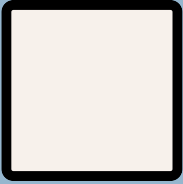
Instead of bones, they have a gelatinous, soft body made of 95% water, which is why they're called 'jellyfish'

CONNECT
THE DOTS!



Did you know jellies have been sent into outer space? In 1991 NASA launched over 2,478 jellyfish polyps into orbit! They wanted to see how being raised in a low gravity situation would change jellyfish behaviour once they were back on Earth.

COLOUR THEN COUNT THESE SPECIES FOUND IN IRISH WATERS!



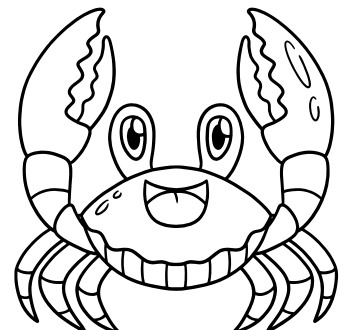
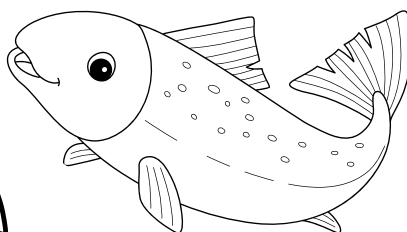
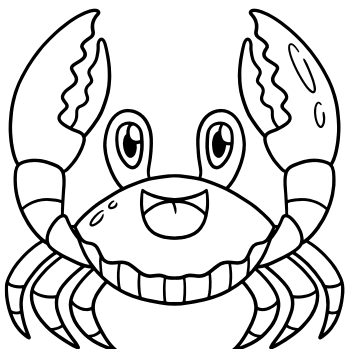
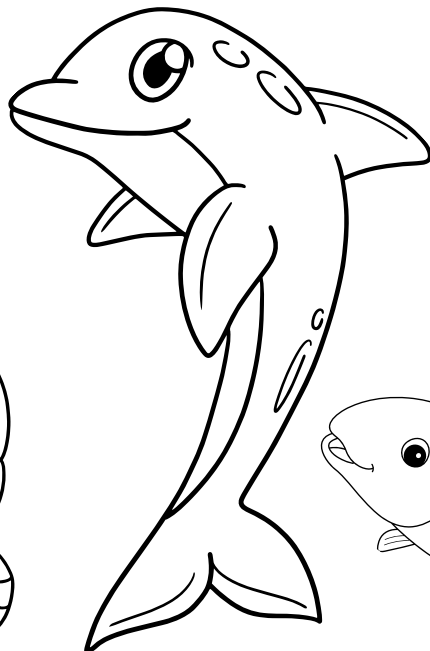
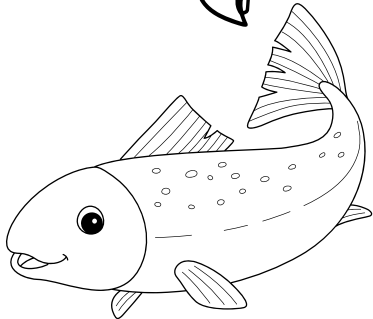
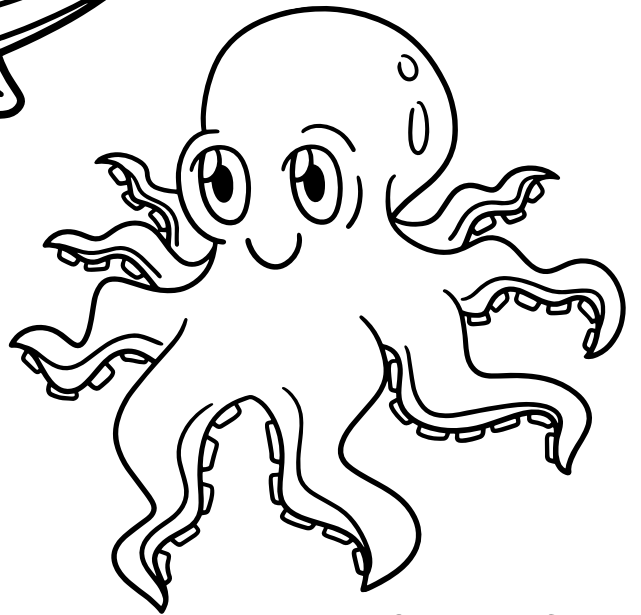
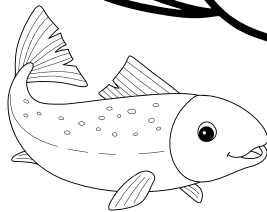
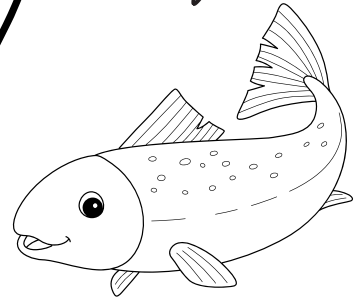
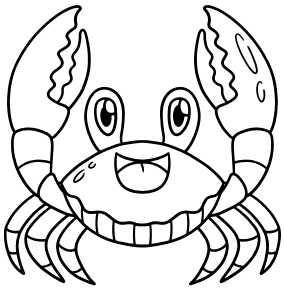
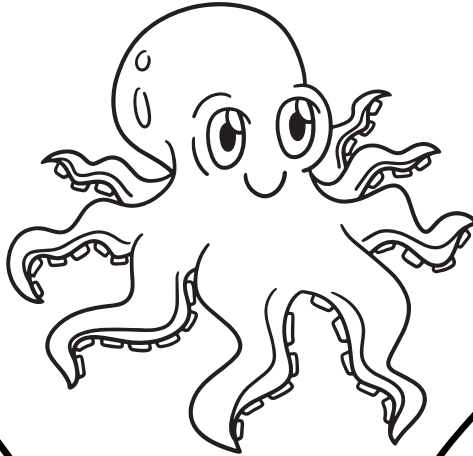
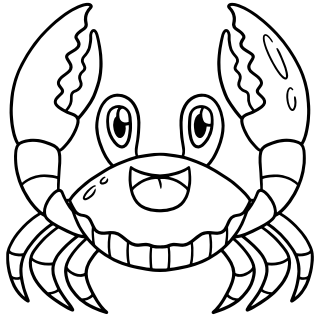
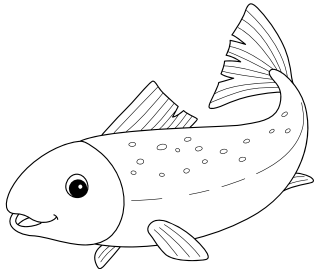
dolphin

salmon

octopus

crab

whale



DID YOU KNOW THAT EVERY YEAR, ABOUT 8 MILLION TONS OF PLASTIC END UP IN THE OCEAN? THAT'S LIKE DUMPING A TRUCKLOAD OF PLASTIC INTO THE WATER EVERY MINUTE! YIKES!

SAVE OUR OCEANS

Marine pollution, a mixture of chemicals & waste, mainly comes from land sources & is carried into the ocean by water, wind or even dumped by humans! This kind of pollution causes harm to the health of various organisms & the environment.

Oil Spills can be disastrous for the ocean. They create a harmful slick on the water's surface, affecting fish, birds, & the entire ecosystem.

Large areas of floating garbage, called '**trash islands**,' form in some parts of the ocean due to currents carrying & collecting debris from all over the world!

Keep
THE OCEAN
clean

Sea animals can mistake plastic for food. Turtles, for example, might think a floating plastic bag looks like a tasty jellyfish. Eating plastic can be really bad for their health!



**HELP SAVE OUR SEAS! CAN YOU FIND THE 8 PIECES
OF TRASH & DEBRIS POLLUTING THE OCEAN?**



Be an
EXPLORER

DISCOVER MORE ABOUT OUR OCEANS &
ANIMALS ON THE EDUCATION TAB AT
WWW.DINGLE-OCEANWORLD.IE

