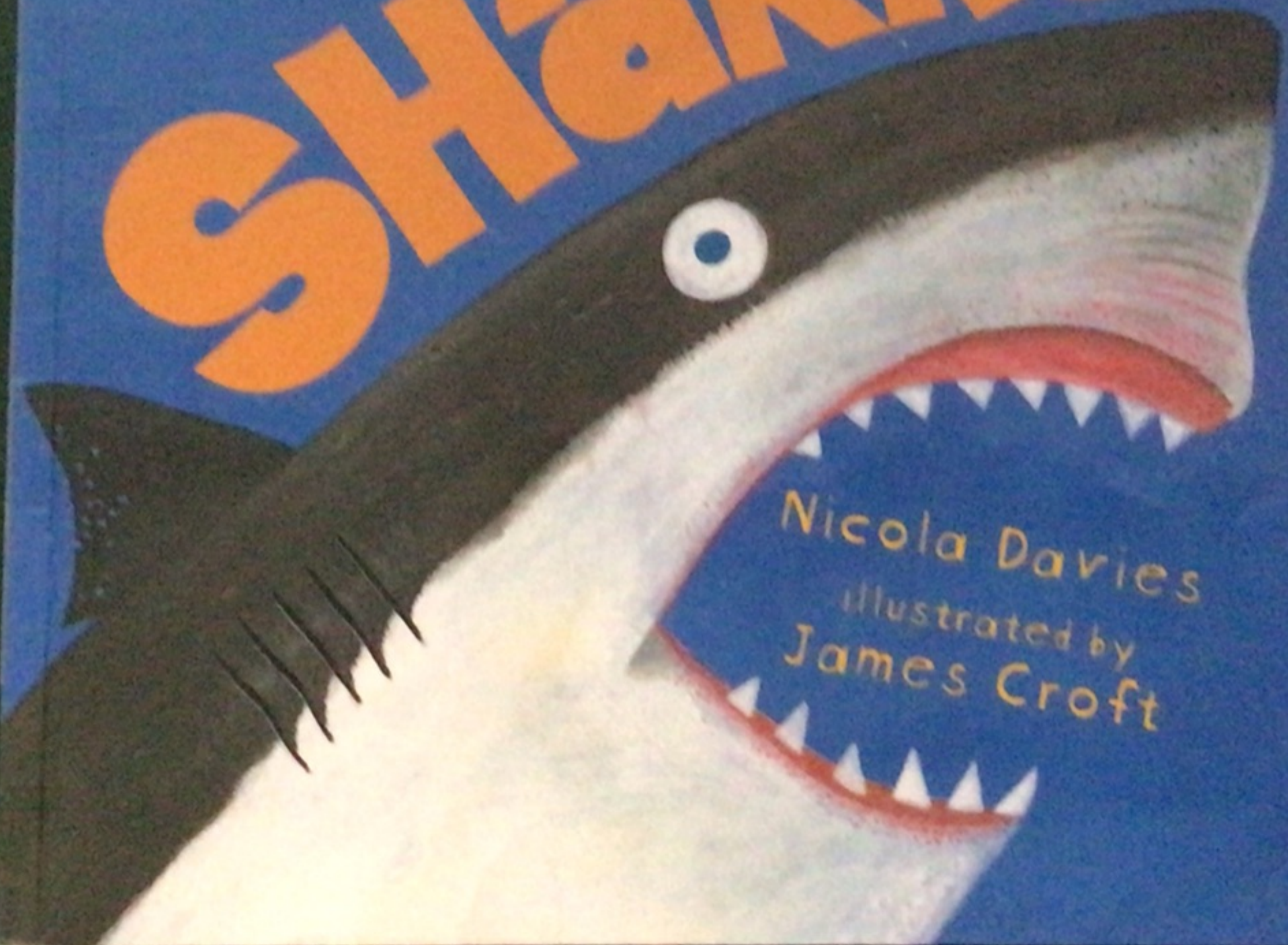




SURPRISING

SHARKS



Nicola Davies

illustrated by
James Croft



LEMON SHARK
3.3 metres



SAND TIGER SHARK
3 metres



PORT JACKSON SHARK
1.2 metres



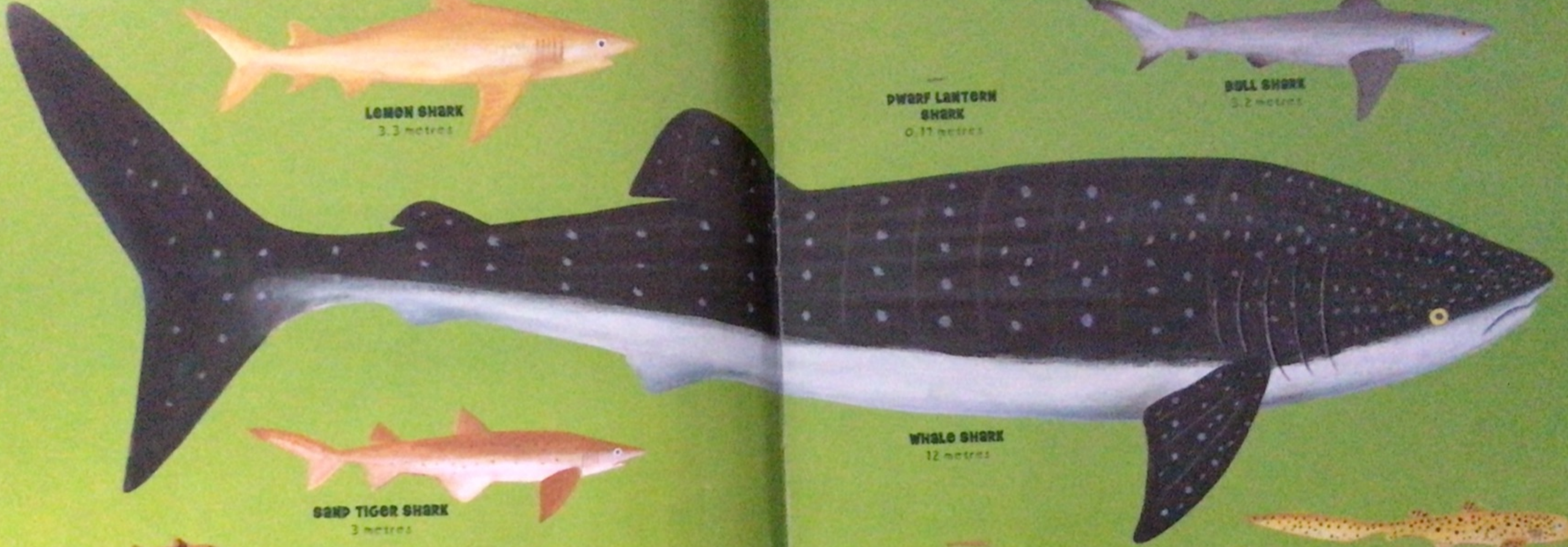
NURSE SHARK
3 metres



Goblin SHARK
3.3 metres



SWELL SHARK
1 metre



WHALE SHARK
12 metres



BULL SHARK
3.2 metres

COOKIE-CUTTER SHARK
0.4 metres



ZEBRA SHARK
2.5 metres



TIGER SHARK
5 metres



You're swimming in the warm blue sea.
What's the one word that turns your
dream into a nightmare?

What's the one word that
makes you think of

a **giant**
man-eating
killer?

SHAAAAARRRKK!



Shark? Yes, it is a shark!

It's a **DWARF LANTERN SHARK**.
The smallest kind of shark in the world, it is
just bigger than a chocolate bar. Not a giant,
certainly no man-eater and only a killer
if you happen to be a shrimp.

You see, **MOST** sharks are not at all what you might expect. After all, who would expect a shark to ...



have built-in fairy lights ...

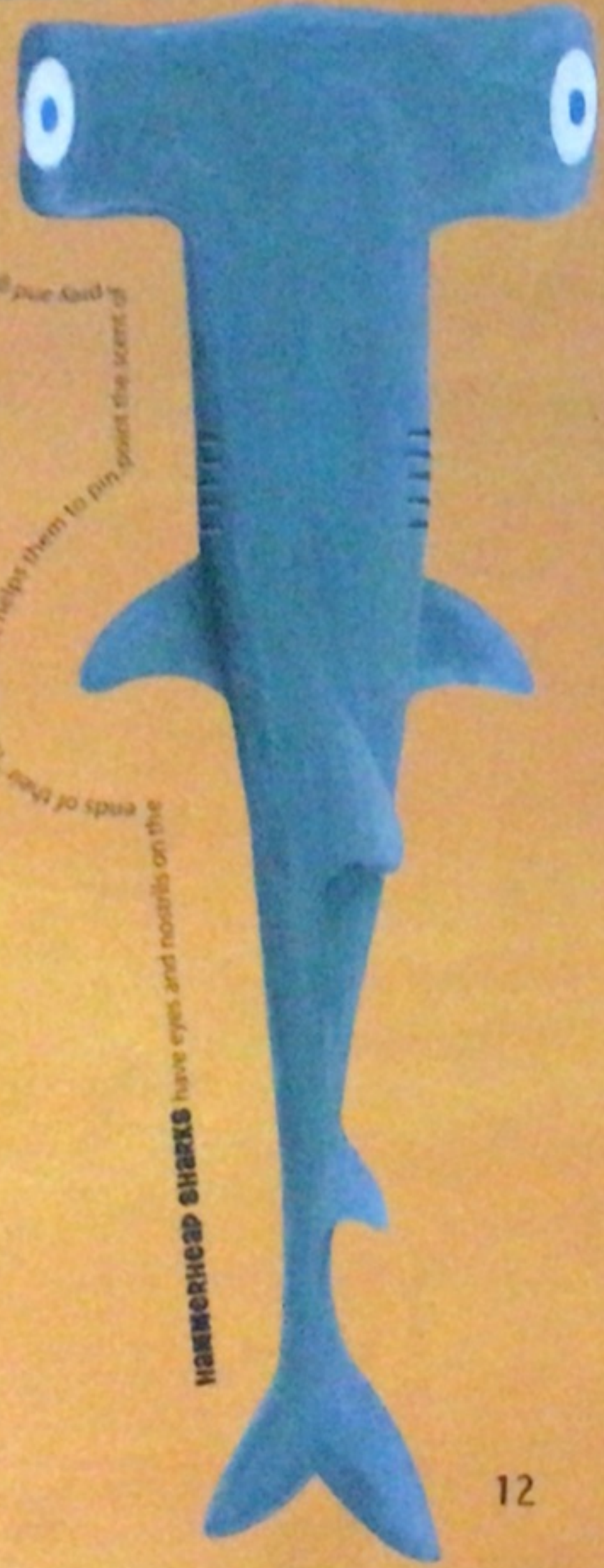
or blow up like a party balloon ...



This Australian shark is called a **WOBBOGONG**. Its patterned skin matches the rocks and corals on the sea floor, so it can sneak up on shellfish, crabs and small fish unseen.



lie on the sea floor like a scrap of old carpet ...



HAMMERHEAD SHARKS have eyes and nostrils on the ends of their "hammers".

It helps them to pin-point the scent of their "prey".

...or look like tools from a monster's **DIY** kit?



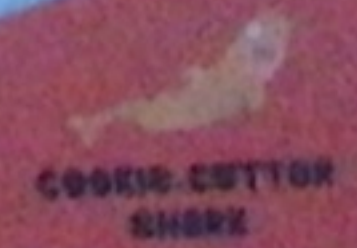
SAW SHARKS root out fish hidden in sand and mud with their "saws".

Then grab them with their needle-sharp teeth.

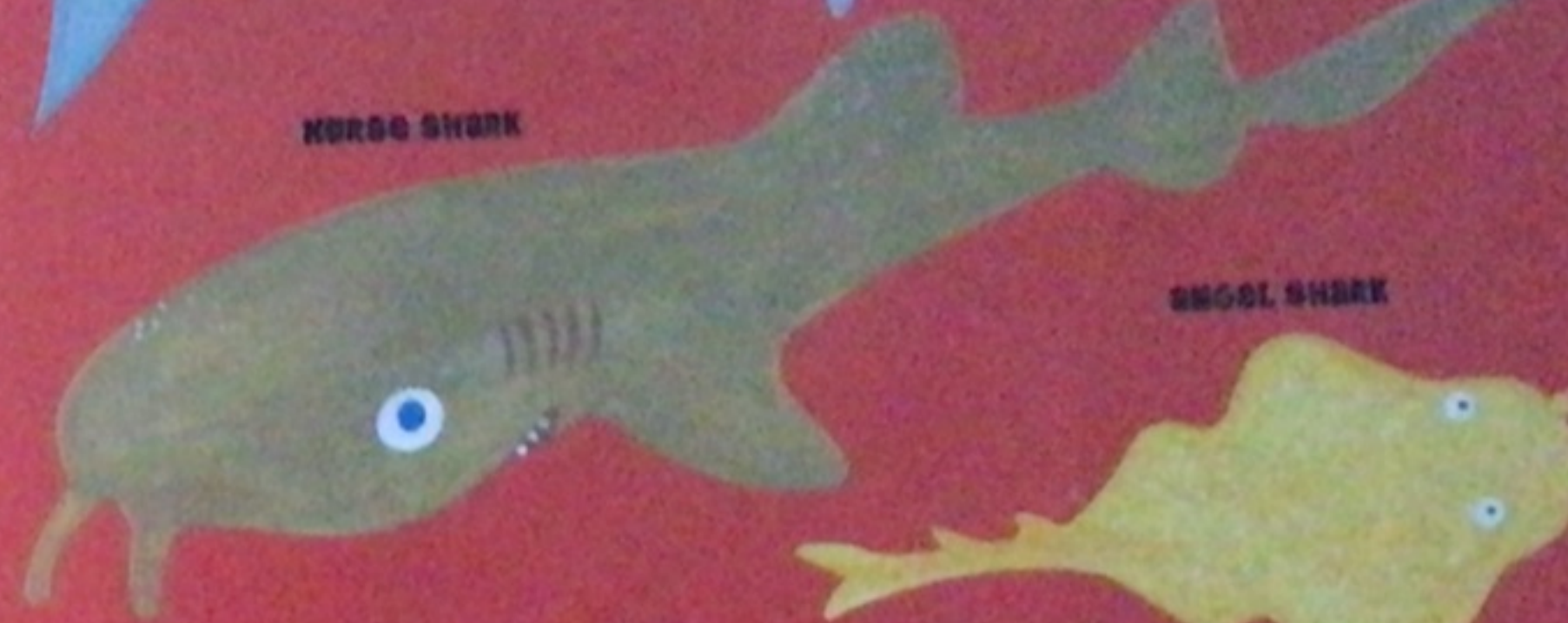
In fact, sharks come in all sorts of shapes and sizes.



BLUE SHARK



COOKIECUTTER SHARK



NURSE SHARK



FROG SHARK



Goblin SHARK

How can such different animals all be sharks?
 Look carefully and you'll see
 all the things they share.



FINS AND TAIL FOR SWIMMING
 A shark's tail fin are bigger at the top than of the bottom, unlike other fish's tails. Their tails push them through the water and the fins help them to swim, left or right, up or down.

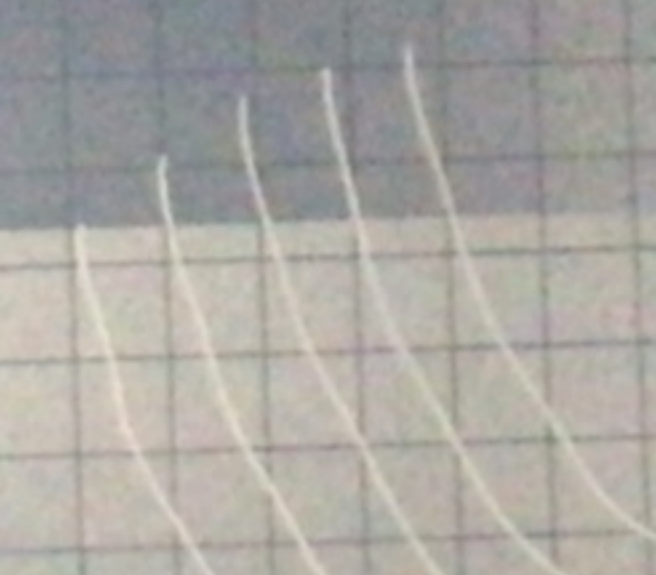
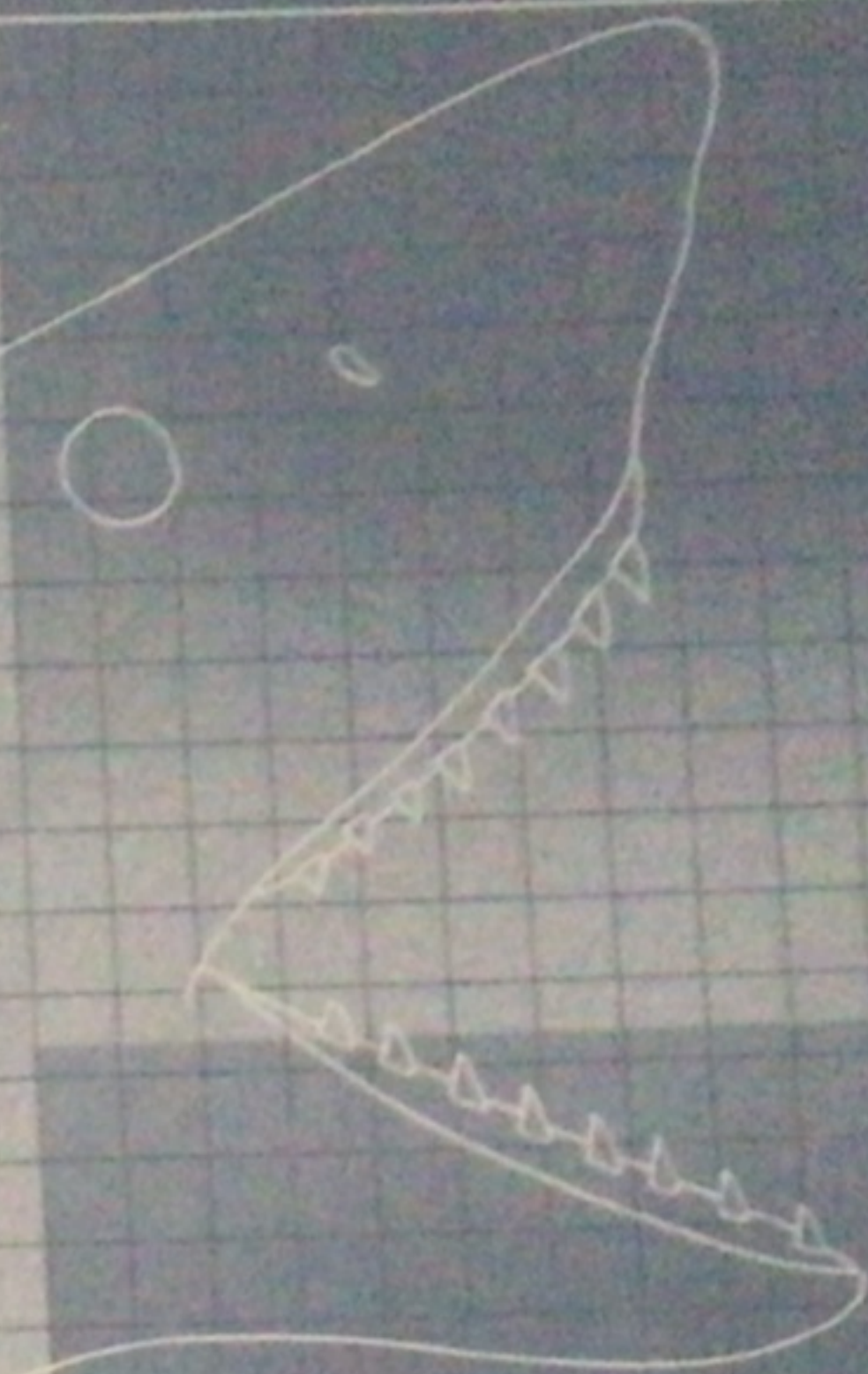
PECTORAL FIN

Outside:

SKIN AS TOUGH AND SCRATCHY AS SANDPAPER
 A shark's skin is covered with tiny tooth-like scales that help it to be hard-wearing.



SKIN



GILL SLITS

GILL SLITS FOR BREATHING WATER
 Inside the gill slits there is a very thin layer of skin that lets oxygen from the water get into the shark's blood, just as our lungs let oxygen from the air into our blood when we breathe.

Inside:

JAWS THAT CAN POP OUT THROUGH THE MOUTH, LIKE A JACK-IN-THE-BOX. Sharks' jaws aren't part of their heads like ours are. Instead they're held on by a kind of living rubber band, so the jaws can shoot forward fast to grab prey.

JAWS

TEETH

ROWS AND ROWS OF SPARE TEETH—SO THAT THE SHARK IS NEVER WITHOUT ITS BITE. A shark can have up to 3,000 teeth, all in rows one behind the other. As one tooth wears away, the one behind moves forward to replace it. So sharks always have sharp teeth and use more than 20,000 in their lifetime.



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A BENDY, BONELESS SKELETON THAT HELPS STOP IT SINKING.

Sharks' skeletons are made of a tough kind of the stuff called cartilage—the same thing that your ears and the end of your nose are made of. Cartilage floats in water like a rubber ball.

SKELETON

But it isn't the basic body plan that makes sharks sharks.

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it's the **sharkish** way they behave!
Sharks are always hungry and they're
always on the lookout for their next meal.
Some even start **killing**
before they're born.

SAND TIGER SHARKS

give birth to just two
live young — which is all
that's left after those two
have eaten the other six
babies in their mother's belly.



Some sharks lay eggs and some give birth to live
young. But all baby sharks are just like their
parents, with **sharp teeth** and
the ability to hunt right from the start.



POGON lay eggs called "mermaid
eggs" which are shaped like a ring in the
water to keep them safe in storms.



PORT JACKSON SHARKS

lay eggs like goldfish, which
they lay in rock crevices.



Sharks' senses are fine-tuned, ready for the tiniest hint that might mean **food!**

Sharks have tiny holes to let sound into their inner ears. They can hear sounds that are too low for our ears to pick up.

Sharks' eyes are on the sides of their heads, so they can see almost as well behind them as they can in front!

The whole of a shark's skin is sensitive in the same way that your fingertips are. You can tell hot from cold, rough from smooth, moving from still. A shark can also get all sorts of information from the movement and temperature of the water all around its body.

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To a hungry shark, the faintest trail of clues is as clear as a restaurant sign.

A shark's nostrils are just under the tip of the snout. Water flows into them as the shark moves forward, bringing any scents with it.

Gel-filled pits in a shark's nose can detect food. Every animal has nerves, which are like cables carrying electrical messages around the body. The shark's gel pits can sense this electricity.

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BOOBING BUBBLES ... look in each
 2,000 liter of plankton
 about water on lower. Plankton
 is the name for the many
 kinds of tiny animals and
 plants that drift around the
 sea with the wind and tide.



And when at last they're close enough for the kill,
 they feel the **crackle** of their prey's living
 nerves, so they bite in just the right place ... no
 matter what the prey! Whether it's **plankton** ...

or **people!** Oh yes, it's true - some sharks
 do kill people, about six of us every year.



The **GREAT WHITE** is
 one of just three species
 of shark that attack people
 regularly. The other two are
 the **BULL SHARK** and the
TIGER SHARK. In fact, only
 30 of the 500 different kinds
 of shark have ever attacked humans.
 Crocodiles, elephants, dogs and
 even pigs kill more people every
 year than sharks do!

But every year **people** kill
100 million
sharks.

Shark tooth
necklace

Machine gear

24

Cattle feed

Sharkskin wallet

Fertilizer

Shark-fin soup

Sharkskin shoes

After shave

Skin cream

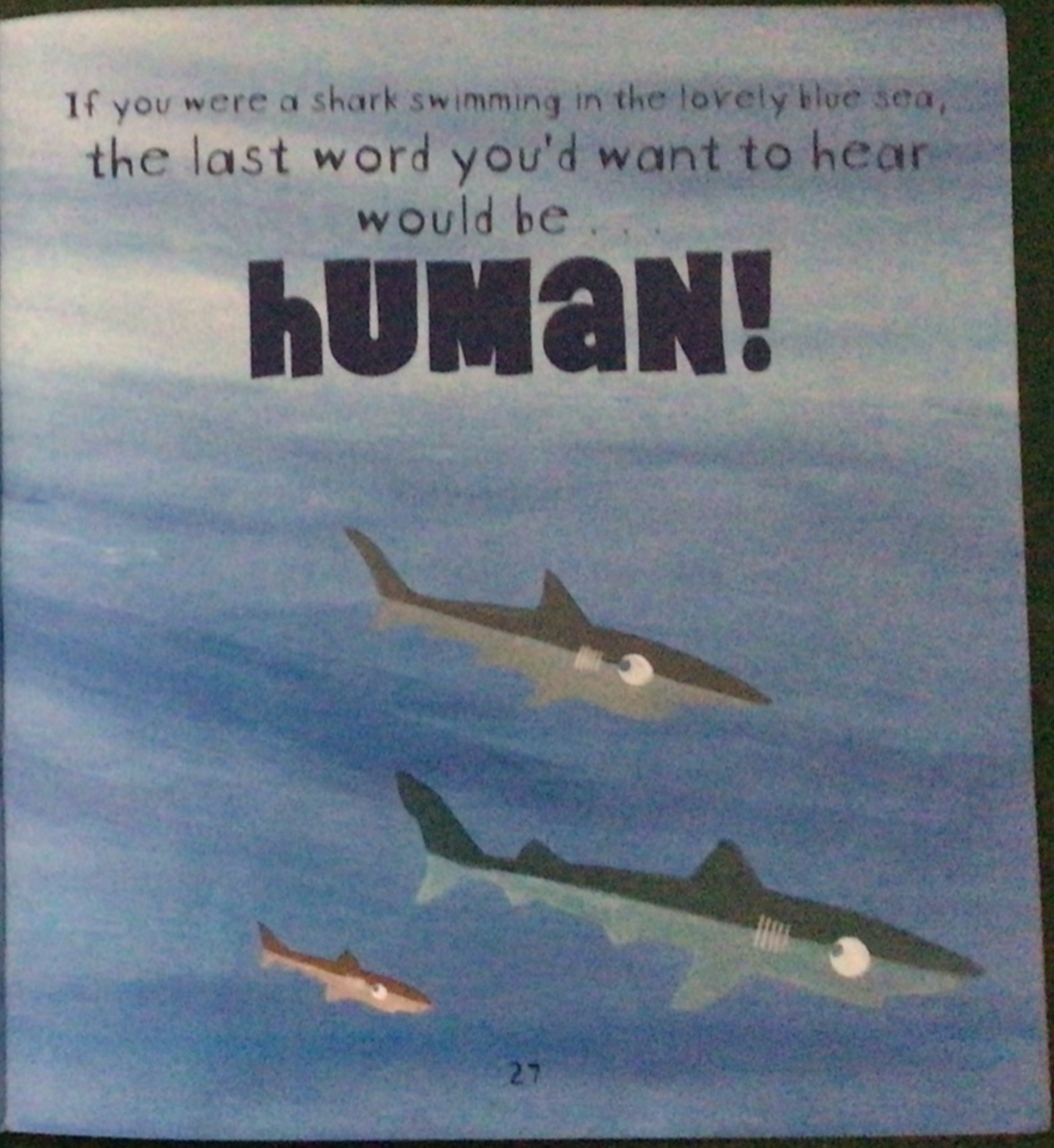
Fish and chips





If you were a shark swimming in the lovely blue sea,
the last word you'd want to hear
would be . . .

hUMAN!





BLUE SHARK
3.2 metres



BASKING SHARK
9 metres



HAMMERHEAD SHARK
4 metres



MAKO SHARK
3.9 metres



SPOTTED DOGFISH
1 metre



WOBBEGONG SHARK
1.3 metres



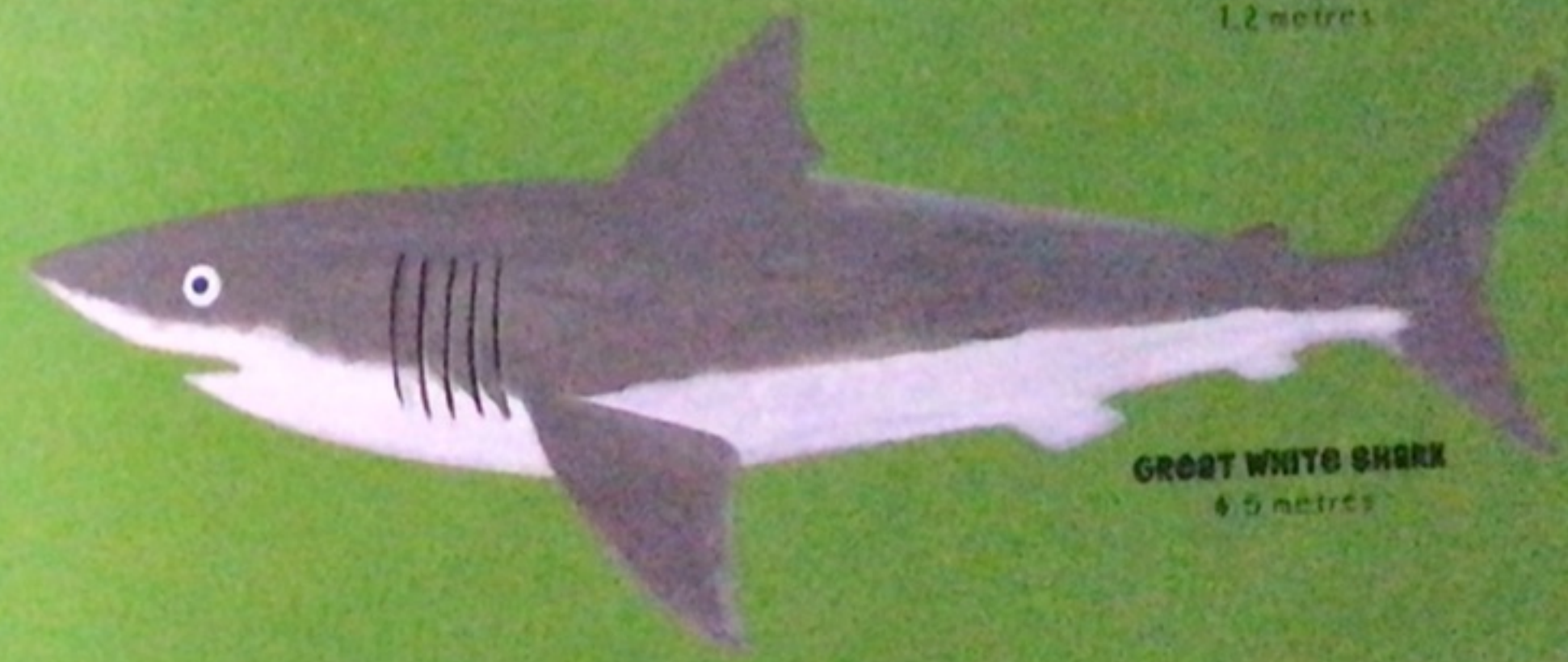
ANGOL SHARK
1.5 metres



THRESHER SHARK
4.5 metres



SAW SHARK
1.2 metres



GREAT WHITE SHARK
4.5 metres

Nature Storybooks
Every wonderful word is true!

If someone says "SHARK!", do you think
giant, man-eating killer? Then you're in for a big surprise!
Most real sharks are not at all what you might expect...

"I was caught hook, line and sinker." *The Guardian*



Nature Storybooks support KS 1-2 Science

