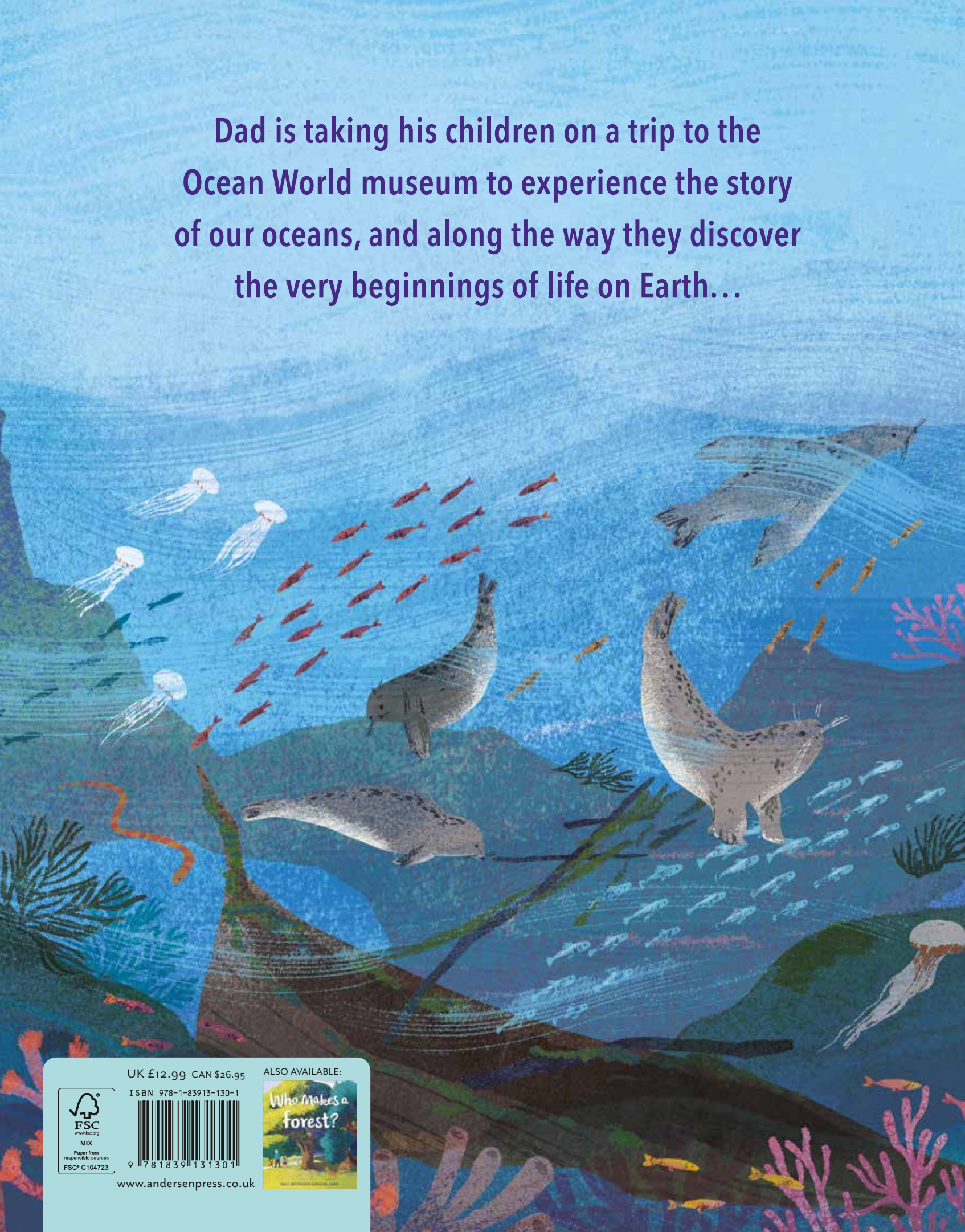


Dad is taking his children on a trip to the Ocean World museum to experience the story of our oceans, and along the way they discover the very beginnings of life on Earth...



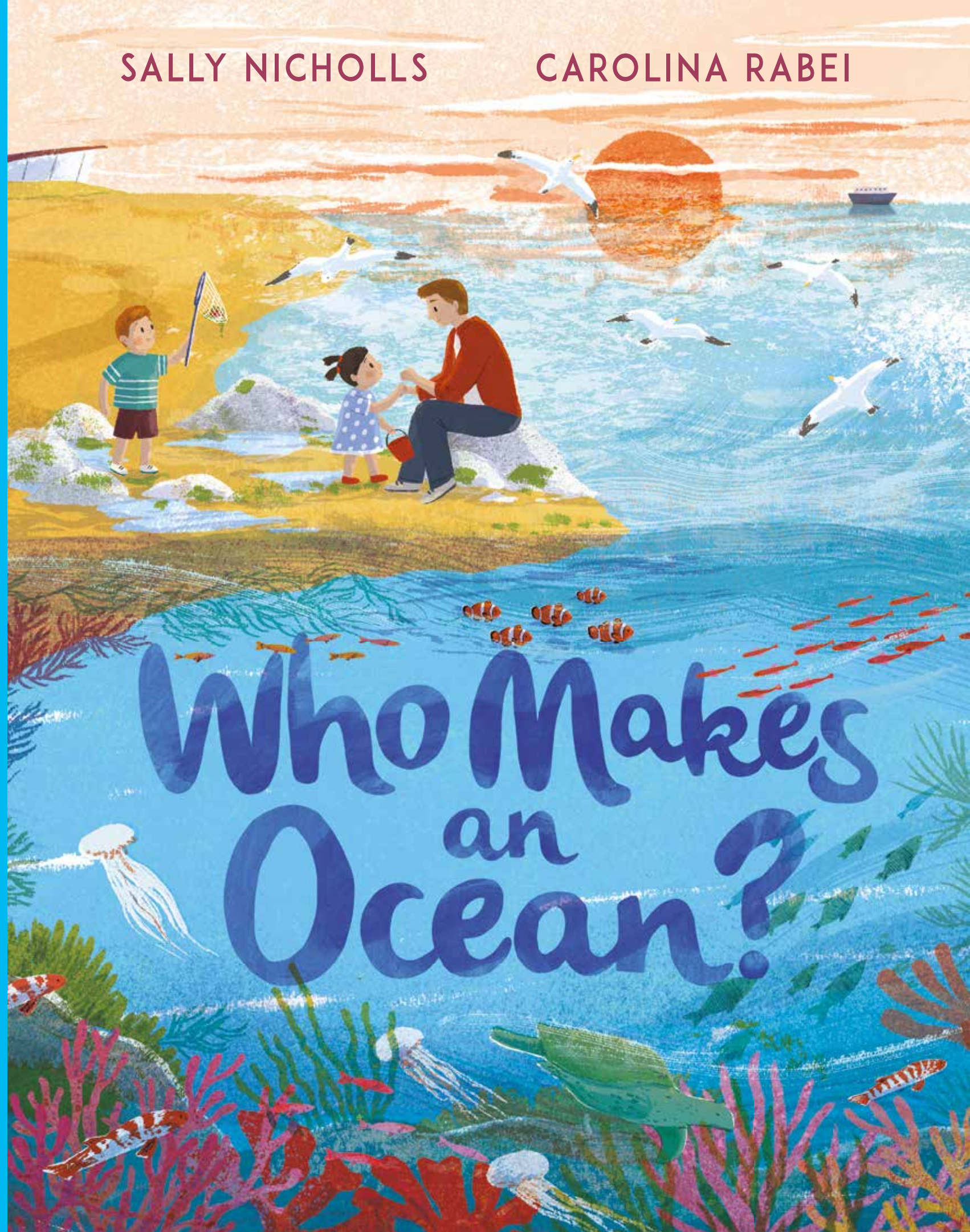
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Who Makes an Ocean?

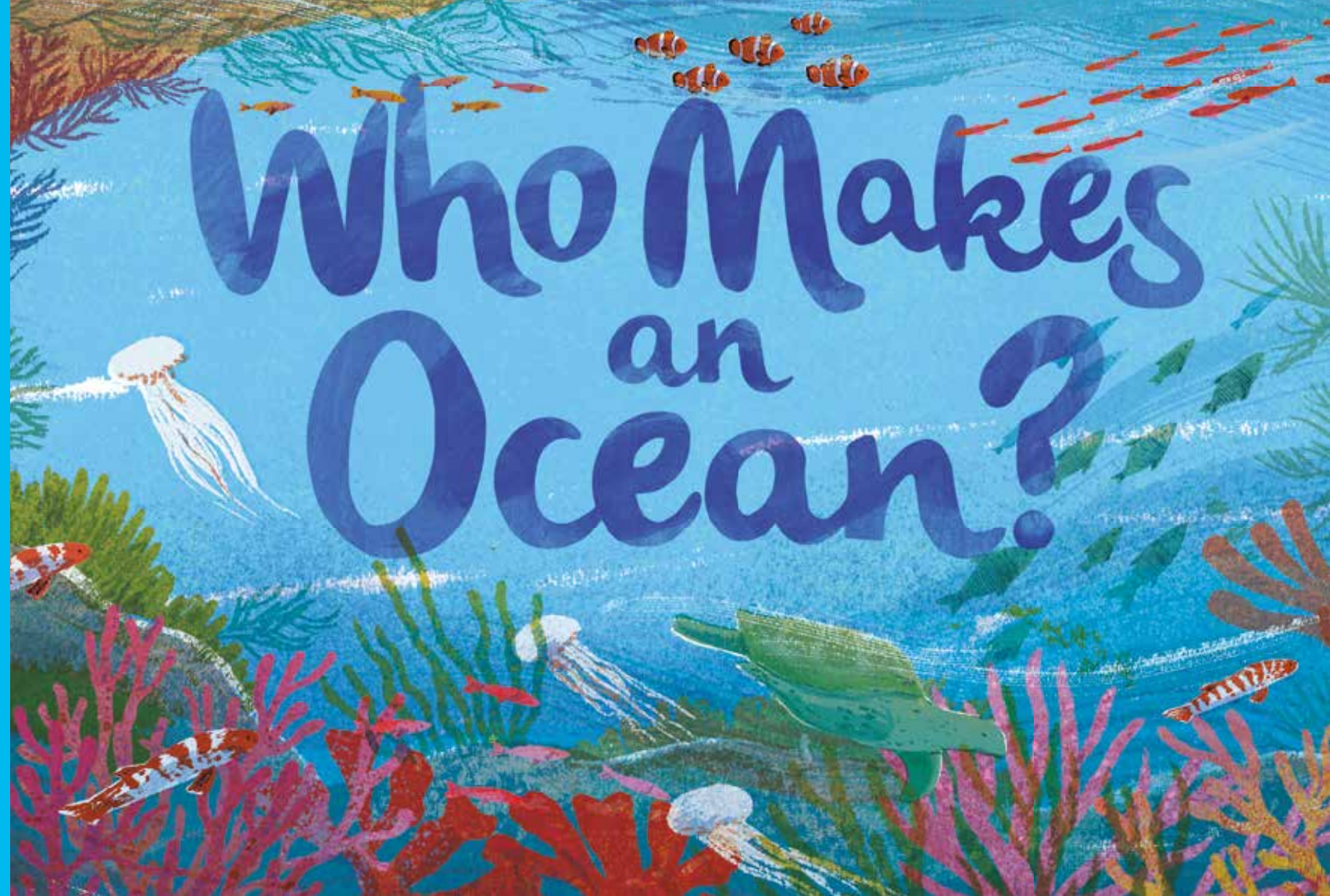
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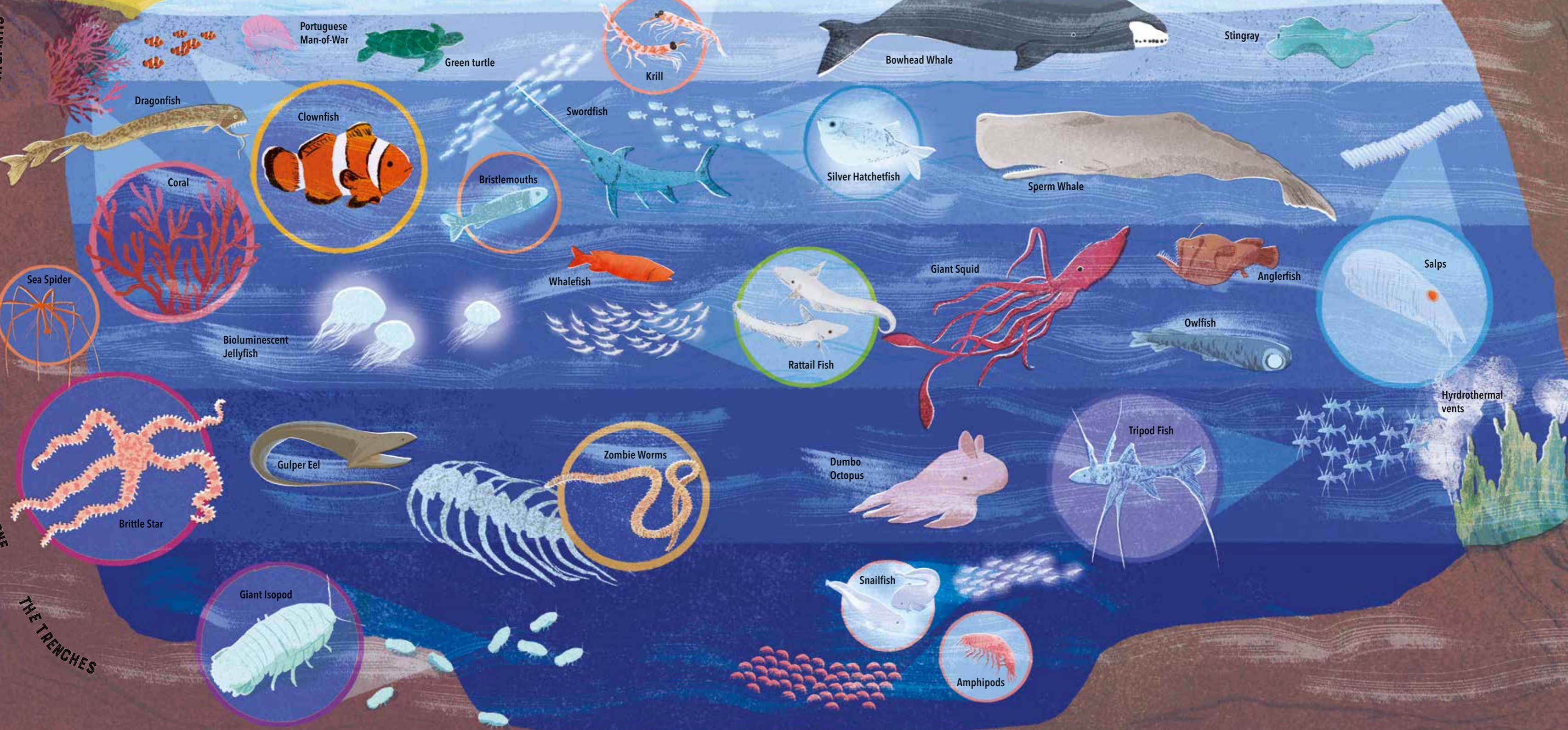
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# SANDY BEACH COASTAL ECOSYSTEM

# ANTARCTIC COASTAL ECOSYSTEM

SUNLIGHT ZONE  
TWILIGHT ZONE  
MIDNIGHT ZONE  
ABYSSAL ZONE  
THE TRENCHES



Seals

Kittiwakes

Dolphins

Algae

Emperor Penguins

Seals

Dolphins

Portuguese Man-of-War

Green turtle

Krill

Bowhead Whale

Stingray

Dragonfish

Clownfish

Swordfish

Silver Hatchetfish

Sperm Whale

Coral

Bristlemouths

Whalefish

Giant Squid

Anglerfish

Salps

Sea Spider

Bioluminescent Jellyfish

Rattail Fish

Owlfish

Hydrothermal vents

Brittle Star

Gulper Eel

Zombie Worms

Dumbo Octopus

Tripod Fish

THE TRENCHES

Giant Isopod

Snailfish

Amphipods

# OUR OCEANS

Do you know why Earth is known as the Blue Planet? Earth has more sea than land by area, and with over two-thirds of its surface taken up by ocean, it appears blue from space!

It's thought that life on Earth started in the oceans, 3–4 billion years ago, alongside hydrothermal vents deep at the bottom of the sea. Now, the oceans are home to a vast array of life, from microscopic organisms in their billions to Antarctic blue whales, Earth's largest animals. Different types of plants and animals live in different parts of the ocean depending on their needs. The ocean can be divided up into six basic ecosystems:

**COASTAL ZONE** Coastal habitats around the world include estuaries, rocky shores, sandy beaches, coral reefs, mangroves, kelp forests and more. These are rich and diverse in life, and are very different depending on their geography and location.

**SUNLIGHT ZONE** Up to 200m deep, there's plenty of light and oxygen here, and it's fairly warm, which is perfect for a lot of animals and plants. It's thought that around 90% of marine life lives here.

**TWILIGHT ZONE** At 200–1,000m deep, it's darker and cooler here, and the pressure is higher than at surface level. Creatures that live here often have large eyes to help them see.

**MIDNIGHT ZONE** At 1,000–4,000m deep, no light can reach this far down so it's completely dark, it's cold, and the pressure is even higher. Many creatures that live here create their own light. This is called bioluminescence.

**ABYSSAL ZONE** Around 4,000–6,000m deep, it's completely dark, near-freezing, and the pressure is very high. Much of the seabed is in the Abyssal Zone, and many of the animals here feed on the remains of larger animals from the higher zones.

**THE TRENCHES** These are the deepest, darkest and coldest parts of the ocean, where the pressure can be 110 times that of the surface. The deepest trench is the Mariana Trench in the Pacific Ocean, at 11,000m deep! There is life here, but only creatures highly adapted to withstand the temperature and pressure can thrive.

**Earth has five named oceans:** the Pacific, Atlantic, Indian, Arctic and Southern Oceans. Although each of them has their own characteristics, all of the world's oceans are interconnected. It's estimated that these oceans are home to between 50% and 80% of all life on Earth, and with less than a fifth of their waters already explored, there's much more to discover...

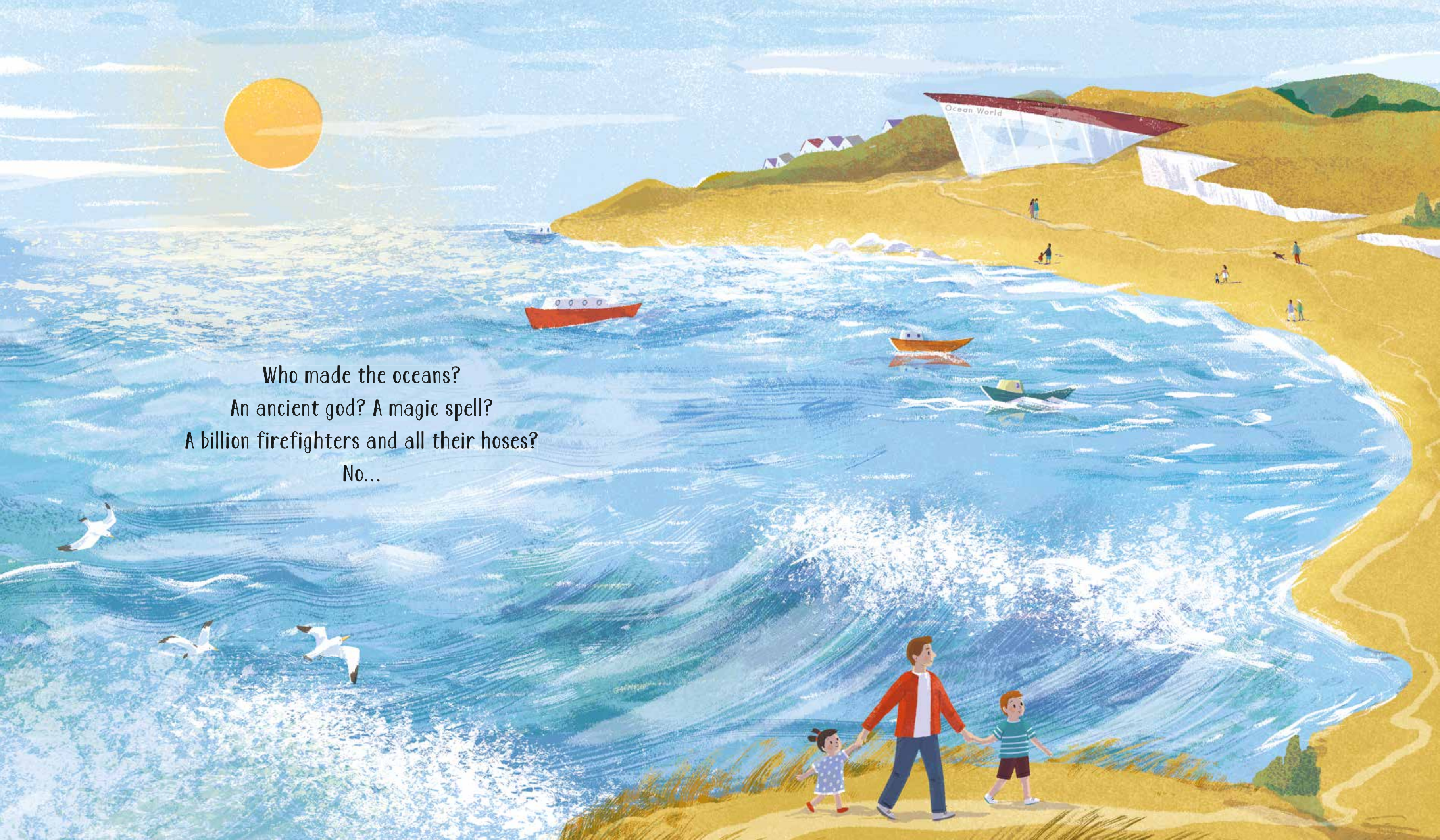


# Who Makes an Ocean?

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Who made the oceans?  
An ancient god? A magic spell?  
A billion firefighters and all their hoses?  
No...