

# Ocean evolution



## KNOW:

The ocean made the earth habitable

The ocean's density means it supports the biggest animals that ever existed, and the smallest...

## A fish caught in time

**What is a fish?** How would you describe it to someone who didn't know? Hard isn't it? But important considering we all descended from the fishes!



The story of the Coelacanth (left) is one of the greatest tales of ocean evolution. Watch the video and discuss: [https://www.youtube.com/watch?v=\\_\\_Woo6L1b1O](https://www.youtube.com/watch?v=__Woo6L1b1O)

They might not be the most photogenic of fish, but they can tell us much about how we evolved from the ocean and onto land. A four limbed dino fish, they have remained unchanged for millions of years.

Imagine what it would be like to swim in the prehistoric ocean... Take a dive (if you can) using the VR headset... What can you see? Who do you meet? A predator, prey, or a long lost distant relative...?

## Mindful moment...

Imagine what it's like to be a fish. Imagine how it feels to move through water, use your fins and swim...!

## Evolutionary oddballs

There are many freaky fish and wacky whales in the story of ocean evolution. But there are some pretty cool tiny things too, that oxygenate the oceans, like planktonic diatoms and marine algae. Imagine you are an 'Evolutionary Oddball' what would you choose? What would your super powers be? Create your own top trump card (agreeing the power categories as a team) and then get the group to compete with each other. Use the template (right) if you like, or write down/memorise your scores and then pair up and duel with each other! Who comes out on top?!

Name: Cyanobacteria	
Strength	/100
Predation	/100
Speed	/100
Beauty	/100
Intelligence	/100

## The whale that walked

After fish walked onto the land, they evolved dramatically, but then returned to the sea... why? Was it to have more space, or find more food? Discuss.

Ask the question: What is the largest animal that has ever lived? A: The blue whale. But how did it get so big? Discuss.

Watch the video: [https://youtu.be/\\_OSRkT\\_9vw?si=Kwaf86HF5pEKD6Ck](https://youtu.be/_OSRkT_9vw?si=Kwaf86HF5pEKD6Ck)

Create an evolutionary time line of the key moments in the evolution of marine species (see resources below to start). Make it as big and as visual as you can.



Ambulocetus natans

## Extra resources

- <https://ocean.si.edu/ocean-life/fish/coelacanth>
- <https://ocean.si.edu/through-time/ocean-through-time>

