Life in the ocean: answers

What your child practised: gills and lungs, streamlined bodies and other ocean adaptations (Year 6 science).

Page 1 · Warm up

shark **G** · dolphin **L** · goldfish **G** · seal **L** · blue whale **L** · sea turtle **L** (turtles are reptiles and breathe air)

Page 2 · Try it together

Usually: torpedo 1st, ball 2nd, pancake 3rd. The streamlined shape meets the least water resistance. Small lumps can be close, so race twice.

Page 2 · A. Match

streamlined body → swim fast using less energy
blubber → keep warm in cold water
dark back, pale belly → hard to spot from above or below
flippers → paddle through the water
air pockets → float up towards the sunlight

Page 3 · B. The table

cod: **gills**, **water**
dolphin: lungs, **air**
shark: **gills**, water
killer whale: **lungs**, **air** (it's a kind of dolphin, a mammal)

Page 3 · C. Explain

A fish's gills take oxygen from water; in air they stop working. A dolphin breathes air with lungs, so it can't get oxygen underwater; it must come up to the surface.

Page 3 · D. Shapes

Shape 3, the torpedo. Its smooth, pointed shape lets water flow past easily, so there is less water resistance.

Challenge: No. Dolphins are mammals. They have lungs and breathe air through a blowhole, so they must swim up to the surface to breathe. You can see them come up for air; fish don't need to.

Watch out for

- **"Dolphins and whales have gills."** Living in water doesn't make an animal a fish. Ask: "Does it come up to breathe?"
- **"Fish breathe water."** Fish take in water, but their gills take the oxygen out of it.
- **Sharks.** Sharks are fish, with gills, even though they are big and streamlined like dolphins.

Going further (5 minutes, no paper)

- **Gills or lungs?** Take turns naming sea animals (crab, seal, octopus, penguin, whale shark…). The other says "gills" or "lungs" and why.
- **In the game:** Chapter 5, Rainforest adaptations, explores rain, shade and crowded trees.