Ocean Investigators | Years 3 to 6

Stand Up Straight

Kelp Forest | Film: Buoy Ahoy! Kelp Forest | Game: Reach for the Sun



Our question

Which stipe shape holds Goldie's blades up best?

You need: Three identical paper strips (about 4 cm by 20 cm), sticky tape, paper clips, Blu Tack, a ruler

What to do

1. Make three stipes from identical strips: one left flat, one folded in half along its length, one rolled into a tube and taped.
2. Stand each one upright in the same-sized lump of Blu Tack. That is the holdfast.
3. Hook paper clips onto the top one at a time. These are the blades.
4. Count how many clips each stipe holds before it bends over.
5. Repeat three times and work out the average.

Fair test: Keep these the same: the paper, the size of the strips, the Blu Tack and the clips.

Our results

Stipe shape	Trial 1	Trial 2	Trial 3	Average
Flat				
Folded				
Rolled tube				

Think about it

- Which shape was strongest? Why?
- Some kelp have little air balloons to help them float. Goldie doesn't. What holds her up instead?
- How does each part of Goldie (holdfast, stipe, blades) help her survive?

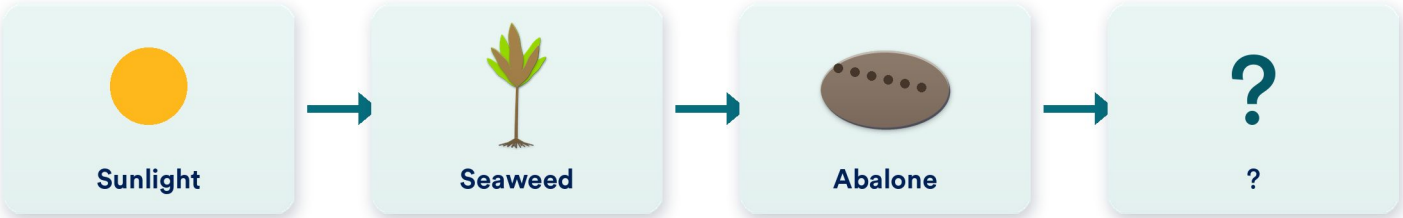
Curriculum link: Year 5: structural adaptations that enable survival. Year 4: producers and consumers in food chains.

Goldie's Forest

From the film

- Kelp forests stretch along more than 8,000 km of coast, about as far as driving from Perth to Sydney and back. Together they are called the Great Southern Reef.
- In early 2011, for more than ten weeks, the sea off WA stayed more than two degrees warmer than normal.
- Along about 100 km of coast, the kelp forests disappeared. Warm-water fish then nibbled young kelp, making it harder to grow back.
- Abalone, a kind of sea snail, munch on bits of seaweed that drift by.

Food chain



Your turn

1. Finish the food chain: Sunlight → seaweed → abalone → ? Research what eats abalone.

2. Which living thing in your food chain is the producer? Which are consumers?

3. How many days is 'more than ten weeks'? Why might a long heatwave be worse than a short one?

4. Use a map or online tool to check how far it is to drive from Perth to Sydney. Does 'there and back' match 8,000 km?

5. People who spot a fish a long way from home can tell scientists. Design a fish-spotting record card. What should it ask?