

Nets That Catch the Fog

PASSAGE · NON-FICTION

SKILLS TRAINED

Working memory

Delayed recall

Comprehension

HOW TO USE THIS SHEET

About 15 minutes

- 1 Read the passage twice, slowly. Take about four minutes.
- 2 Turn to the next page and cover this one. No looking back.
- 3 Write what you remember, then mark it on the last page.

The Atacama Desert in northern Chile is the driest place on earth that is not covered in ice. Some weather stations there have been waiting for rain since the day they were built. A few patches of its ground have probably not been properly wet for hundreds of years.

And yet, most mornings, the hills near the coast disappear. A thick white fog rolls in off the Pacific Ocean and hangs on the slopes until the sun burns it away. The people of the coast have a name for it. They call it the *camanchaca*.

The *camanchaca* is not rain. It is a cloud sitting on the land, and it is full of water droplets far too small and too light to fall. Lichens and cacti on those hills live on it: the fog settles on them, and they drink.

In the 1980s, scientists in Chile and Canada asked an obvious question. If a cactus can catch fog, why can't we?

Their answer was a net. They stretched fine plastic mesh between two wooden posts, four metres high and eight metres wide, and faced it into the wind. As the fog blew through, droplets caught on the threads. They met other droplets, grew heavy, and ran down into a gutter along the bottom of the net.

The gutters fed a pipe, and the pipe ran downhill to a fishing village called Chungungo, which until then had had its water delivered by lorry. Ninety-four nets were raised on the hill above the village. On a good day they gave fifteen thousand litres of water — enough for every house, and for vegetable gardens besides.

Fog catchers need almost nothing to run. There is no engine, no electricity and no fuel. The wind does the carrying and gravity does the rest, and the only real work is walking up the hill to mend a torn net.

Nets like these have since been tried on other dry coasts and mountainsides around the world. Each one is doing something that sounds impossible and is not: taking a drink from a cloud.

Cover the passage before you start.

Looking back turns this into a copying exercise. Getting it slightly wrong from memory is what makes it work.

PART A Tell it back

Write down everything you can remember about the fog of the Atacama and how people catch it. Order does not matter. Keep writing until you run out.

PART B 5 questions

- 1 What is the *camanchaca*, and where does it come from?

- 2 How big was each net, and what was it made of?

- 3 How many nets were raised above Chungungo, and how much water could they give on a good day?

- 4 Why does a fog catcher need no engine, electricity or fuel?

- 5 The nets were made of *mesh*. What is mesh, and why would it work better here than a solid sheet of plastic?

PART C Mark your own work

Now go back to the passage. Tick every answer you got right. You do not need the same words as the answer below — if you wrote the same idea in your own words, it counts.

- ☐ 1 • The thick white fog of the Chilean coast. It rolls in off the Pacific Ocean and hangs on the hills until the sun burns it away.
- ☐ 2 • Four metres high and eight metres wide, made of fine plastic mesh stretched between two wooden posts.
- ☐ 3 • Ninety-four nets, giving about fifteen thousand litres of water on a good day.
- ☐ 4 • Nothing has to be pumped or driven. The wind blows the fog into the net by itself, and gravity pulls the collected water downhill through the pipe to the village.
- ☐ 5 • Mesh is a net-like material full of small holes. The fog has to pass through it so the droplets can catch on the threads; a solid sheet would simply block the wind and the fog would slide around it.

FACTS RECALLED IN PART A

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QUESTIONS CORRECT

— / 5

DATE

THE STRATEGY Link it to what you know

When you meet a new fact, hook it onto something you already have in your head — the fog net is a spider's web, the gutter is the one on your roof. A fact tied to three things you already know has three different paths back to it, so when one path fails, another one still works.

WHERE YOU ALREADY DO THIS

What is something you learned quickly because it reminded you of something you already knew?

FOR THE PARENT OR TEACHER • This sheet trains recall, not reading speed. Resist prompting during Part A — the effort of retrieving a half-remembered fact is exactly what builds the memory, and a child who is rescued too early never does that work. Compare the Part A count across several sets rather than chasing a score on any single one.