## THE EARTH COULD BE SAVED BY ANT-IBIOTICS!

FUNGUS-FARMING ants could help solve our antibiotic problem, new research has found.

Before Alexander Fleming discovered the antibiotic penicillin in 1928, bacterial infections were one of the biggest killers on the planet.

Over that time, bacteria have evolved and developed, and become increasingly resistant to antibiotics, meaning the medicine doesn't make us better. But it turns out that leafcutter ants might be the solution to that problem!

Leafcutter ants are known as 'fungus-farmers'. They cultivate fungus 'gardens', and protect their crop from parasitic fungi that would otherwise destroy their farms.

To fight against these parasitic fungi, the ants use an antimicrobial substance that's produced by bacteria in their nests.

This antimicrobial defence works by constantly evolving and changing – making it almost impossible for the parasitic fungus to evolve quickly enough to become resistant.

While there's still work to be done, the researchers say that the discovery could "help combat the rise of antibiotic resistance." Fungus crossed!



# AROUND THE WORLD IN A TINY CHOPPER PATINET

## JAMES Ketchell (above) has become the first person to travel all the way around the world in a gyrocopter.

A gyrocopter is a lot like a helicopter, except it's tiny and has an open top, meaning that Ketchell was completely exposed to the elements!

His journey, which covered 24,000 nautical miles over 175 days, is actually Ketchell's fourth endurance test.

He rowed across the Atlantic in 2010, climbed Everest in 2011, and cycled around the world in 2013.

"Climbing Everest and rowing the Atlantic was easy compared to this," said Ketchell, "as some of the terrain is so barren and remote.

It's beautiful, but if I had a problem, I wouldn't want to think about what would happen."

There were a couple of close calls too. While flying over Canada, a thunderstorm forced him to make an emergency landing.

"It was a James Bond moment," Ketchell explained.

"Lightning was coming down all around me, and I landed on a road. These burly truckers, who aren't fazed by anything, their jaws just dropped."

### GLOSSARY

parasitic – An organism living as a parasite. A parasite lives on an animal or plant from another species and feeds from it

antimicrobial – A substance that kills microorganisms or stops their growth

nautical - Relating to ships, sailing or sailors

burly - A strong and heavily built person



### Questions on: Big News: 'The Earth could be saved by ant-ibiotics'

### Part A: Find and explain the facts

A1. Fill the gaps to complete the sentence about the discovery	v ot	: penicillin
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Before Alexander	discovered the	$_{-}$ penicillin in
	infections were one of the bigg	est killers on the

A2. What are known as 'fungus-farmers'?

### Part B: Deduce and infer information

- B1. Explain what our "antibiotic problem" is.
- B2. How might fungus-farming ants help solve the problem?

### Part C: Analyse the writing and presentation

C1. Comment on the use of language in "Ant-ibiotics" and "Fungus crossed!".

### Questions on: Big News: 'Around the world in a tiny chopper'

### Part A: Find and explain the facts

- A1. What is a gyrocopter?
- A2. Who has become the first person to travel all the way around the world in a gyrocopter?
- A3. Complete the table by listing the other endurance tests he has completed.

YEAR	ENDURANCE TEST
2010	
2011	
2013	

### Part B: Deduce and infer information

- B1. Why did Ketchell find travelling around the world in a gyrocopter the hardest of his endurance tests so far?
- B2. Why does he describe the emergency landing as a "James Bond moment"?
- B3. Why is it significant that the landing caused the jaws of "burly truckers" to drop?

### Part C: Analyse the writing and presentation

C1. Ketchell is directly quoted in this article. What effect does this have on the reader? Explain your answer.

### Part D: Writing task

Imagine that Ketchell has advertised for someone to accompany him on his next endurance test. Write a letter applying for the position. In your letter you should include:

- Why you want to do an endurance test
- What relevant skills and qualities you have
- Why he should choose you to accompany him