



BIG NEWS & ANIMAL NEWS

SUPERBUGS: FIGHTING BACK

WORLD leaders are working together to fight deadly superbugs.

Experts say that some medicines that used to make us better are no longer working. It's known as antimicrobial resistance.

In other words, antibiotic medicine cannot do its job of killing bacteria. The bacteria in infections are becoming resistant to the drugs, so they don't work anymore. People are calling them 'superbugs'.

This is already happening, which is why global leaders met at the United Nations last week to talk about the problem.

Without action now, it's thought that by 2050, antimicrobial resistance will mean ten million people will die every year.

Scientists say part of the problem is that antibiotics are given out to people too often by doctors. Farm animals are also given antibiotics in their food to stop them getting ill – so the medicines pass into the food we eat.

Everywhere in the world, common infections are becoming resistant to the antimicrobial drugs used to treat them. This means longer illnesses and more deaths. But, at last week's meeting, world leaders agreed an action plan to deal with the problem.

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There is no time to wait – antibiotic resistance is a real threat and is fast reaching the point of no return. It is now or never.

The action plan is also looking at water. After we take an antibiotic to treat bacterial infections, the resistant bacteria leaves our bodies in wee and poo. Eventually, this reaches a wastewater treatment plant. With treated wastewater being used in farming, resistant bacteria may find its way into our food as well. So scientists are urgently looking at this problem, too.

In the meantime, we can all help by only taking antibiotics when we really need them.

FEARS FOR PENGUINS

A NEW strain of bird flu has been discovered in Antarctic penguins, leading to concerns that the virus is reaching the area more often than thought before.

The virus was detected first in Antarctica in 2013, but Australian researchers helped to uncover a new strain (variety) of bird flu in a chinstrap penguin in 2015. The new strain showed striking similarities to a North American strain, which means it had been introduced to the area only recently. Before, scientists thought viruses rarely reached Antarctica, but it is now thought that migrating birds are taking the virus there more frequently.

While the bird flu hasn't made the penguins ill, the fact that the virus has arrived in Antarctica worries scientists. They feel that finding out how bird flu reached Antarctica will help them understand how the virus moves around.

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GLOSSARY:

Bacteria – microscopic living organisms that can be found everywhere. They can be dangerous, such as when they cause infection.

Virus – an infective agent that is able to multiply only within the living cells of a host. Viruses are even smaller than bacteria.



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Carefully read this week's '*SUPERBUGS: FIGHTING BACK*' and '*FEARS FOR PENGUINS*' articles and then answer the following questions.

QUESTIONS ON "SUPERBUGS: FIGHTING BACK"

Part A: Find and explain the facts

- A1.** What is antimicrobial resistance?
A2. What are 'superbugs'?

Part B: Deduce and infer information

- B1.** If action isn't taken, what are the consequences of antimicrobial resistance likely to be?
B2. What do scientists believe has caused the problem?
B3. What is being done to address antimicrobial resistance?

Part C: Analyse the writing and presentation

- C1.** Analyse the picture that accompanies this article.
C2. Pick out a sentence that is used to convey the seriousness of the situation and explain the effect that it has on the reader.

QUESTIONS ON "FEARS FOR PENGUINS"

Part A: Find and explain the facts

- A1.** What has been discovered in Antarctic penguins?
A2. Complete the table to show what was discovered in 2013 and what was discovered in 2015:
A3. What is the new strain like?

2013	2015

Part B: Deduce and infer information

- B1.** The penguins haven't become ill so why are scientists worried?
B2. Why are scientists so concerned with finding out how bird flu reached Antarctica?

Part C: Analyse the writing and presentation

- C1.** Think of a different headline for this article and explain your choice.



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AIM OF THE NEWS COMPREHENSIONS

News reports are unique non-fiction texts. Being real, they naturally engage students, and with the range of topics that are covered, help to develop pupils' knowledge and understanding of the wider world outside the classroom.

The reports are ideal for short, focused comprehension or discussion activities. Along with the opportunity to find fascinating facts and appreciate the opinions of those involved, there is plenty to be inferred and deduced to understand in more depth what is being reported. Like authors, journalists play with language, so news 'stories' are rich nuggets of text to investigate and provide the opportunity for literacy programmes.

TEACHER ANSWER GUIDE

The teacher answers are intended to provide a guide to the reading skill each question is practising. Suggestions are given for a starting point for responses that students would be expected to give at the start of KS3. Further suggestions then give fuller, more developed responses that students will work towards by the end of KS3, in preparation for the non-fiction elements of GCSE English Language.

TEACHER ANSWERS**Questions on "SUPERBUGS : FIGHTING BACK"****Part A**

A1. What is antimicrobial resistance?

READING SKILL-Find and explain information

Possible answer**Starting point**

- Antimicrobial resistance is when medicines used to make us better are no longer working.

Development

- It is when antibiotic medicine cannot do its job of killing bacteria.

A2. What are 'superbugs'?

READING SKILL-Find and explain information

Expected response

- The bacteria in infections that are becoming resistant to drugs are being called 'superbugs'.

Part B

B1. If action isn't taken, what are the consequences of antimicrobial resistance likely to be?

READING SKILL- Infer information and justify with evidence from the text

Possible answer**Starting point**

- It is likely that there will be longer illnesses and deaths because globally, common infections are becoming resistant to the antimicrobial drugs used to treat them. Indeed, it's thought that by 2050, antimicrobial resistance will mean ten million people will die every year.

Development

READING SKILL- Infer information based on own knowledge

- Antimicrobial resistance threatens medical procedures such as organ transplantation, cancer chemotherapy and major surgery such as caesarean sections. This is because without effective antimicrobials for the prevention of infections, such procedures become very high risk.
- Antimicrobial resistance is likely to drain health care resources and increase the cost of health care because people will need to stay in hospital for longer and it is likely that more people will require intensive care.

B2. What do scientists believe has caused the problem?

READING SKILL- Infer information and justify with evidence from the text

Possible answer**Starting point**

- Scientists believe that part of the problem is that antibiotics are given out to people too often by doctors. For example, when they are given to people with viral infections like colds and flu.

Development

- Furthermore, sometimes farm animals are given antibiotics in their food to stop them getting ill and this medicine then passes into the food that we eat.

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- Resistant bacteria may also find its way into our food because treated wastewater is used in farming. After we take an antibiotic to treat bacterial infections, the resistant bacteria leaves our bodies in our wee and poo and goes to a wastewater treatment plant. That water may then be used by farmers to irrigate fields of food crops.

B3. What is being done to address antimicrobial resistance?

READING SKILL- Infer information and justify with evidence from the text

Possible answer

Starting point

- Global leaders met at the United Nations last week to talk about the problem. They agreed an action plan.

Development

READING SKILL- Infer information based on own knowledge

- This is important because according to the World Health Organization, “single isolated interventions have limited impact.” Therefore, countries need to work together to conduct further research into the problem and to develop new responses.
- Whilst this work is being done, we can all help to address the problem by only taking antibiotics when we really need them.

Part C

C1. Analyse the picture that accompanies this article.

READING SKILL- Identify benefits of text organisation and presentation

Possible answer

Starting point

- The main picture is of a large spoon full of tablets. The tablets are a range of shapes, sizes and colours and they are recognisable as medicine.

Development

- Showing all the different coloured tablets together makes the image stand out on the page. Furthermore, the image is unusual as you don't normally see so many different tablets grouped together. This helps to highlight the concern that too many medicines and antibiotics are being given out.
- The use of the spoon is also effective because we use spoons to eat our food. Therefore, having all of the tablets on a spoon helps to hammer home the message about how antibiotics are getting into our food chain. This is shocking because people don't like to think of their food being contaminated by drugs.

C2. Pick out a sentence that is used to convey the seriousness of the situation and explain the effect that it has on the reader.

READING SKILL- Recognise effect of language choices

Possible answer

Starting point-an appropriate sentence is chosen/simple comment on effect.

Developed response- an appropriate sentence is chosen/clear and detailed explanation of effect.

(Students only need to choose and analyse one sentence. Award other selections if a convincing explanation is provided.)

ANIMAL NEWS

Sentence	Effect
“Without action now, it’s thought that by 2050, antimicrobial resistance will mean ten million people will die every year.”	The use of the statistic “ten million” conveys to the reader how serious the situation is because that is a lot of lost lives. It may only be a prediction but with so many lives at stake there will be an unwillingness to take the risk that it won’t become a reality. Therefore the sentence serves as a warning and the implication that something can still be done about the situation makes it seem more urgent.
“There is no time to wait — antibiotic resistance is a real threat and is fast reaching the point of no return.”	The emphasis on there being “no time to wait” and that the point of no return is “fast” being reached shows how serious the situation is because it introduces the possibility that we may not be able to resolve the problem. The reference to antibiotic resistance being a “real threat” is also used to hook sceptics. People are bombarded with bad news stories all of the time and often such stories are exaggerated. Therefore the use of the phrase “real threat” makes the reader view the dangers associated with antimicrobial resistance as genuine.
“It is now or never.”	This is a short, blunt sentence. It makes the situation seem serious because it is a call for action before it is too late. It also reinforces the previous reference to there being “no time to wait” and thus it hammers the point home.

Questions on “FEARS FOR PENGUINS”**Part A**

A1. What has been discovered in Antarctic penguins?

READING SKILL-Find and explain information

Expected response

- A new strain of bird flu has been discovered in Antarctic penguins.

A2. Complete the table to show what was discovered in 2013 and what was discovered in 2015:

READING SKILL-Find and explain information

Possible answer

2013	2015
Expected response <ul style="list-style-type: none"> • When the bird flu virus was first detected in Antarctica. 	Starting point <ul style="list-style-type: none"> • When a new strain of bird flu was uncovered. Development <ul style="list-style-type: none"> • It was discovered in a chinstrap penguin by Australian researchers

ANIMAL NEWS

A3. What is the new strain like?

READING SKILL-Find and explain information

Possible answer

Starting point

- The new strain showed striking similarities to a North American strain.

Development

- This means that it had been introduced only recently to the area.

Part B

B1. The penguins haven't been made ill so why are scientists worried?

READING SKILL- Infer information and justify with evidence from the text

Possible answer

Starting point

- Even though the bird flu hasn't made the penguins ill, scientist are worried that the virus has arrived in Antarctica.

Development

- Scientists had thought that viruses rarely reached Antarctica and so this is a worrying development.

B2. Why are scientists so concerned with finding out how bird flu reached Antarctica?

READING SKILL- Infer information and justify with evidence from the text

Possible answer

Starting point

- Scientists are concerned with finding out how bird flu reached Antarctica because they hope that it will help them to understand how the virus moves around.

Development

- It is thought that migrating birds might be taking the virus there more frequently.

Part C

C1. Think of a different headline for this article and explain your choice.

READING SKILL - Consider contextual factors

Possible answer

Starting point - an appropriate headline is suggested/simple comment on effect.

Developed response - an appropriate headline is suggested/clear and detailed explanation of effect.

Headline	Explanation
Fiendish flu follows feathered friends (Award all appropriate suggestions)	<ul style="list-style-type: none"> The use of alliteration helps the headline to flow since it is quite long. Furthermore, the length of the headline is appropriate because it isn't for a front page article. The reference to the flu virus as "fiendish" makes it sound threatening and complex which prepares the reader for the fact that there are different strains and that it has reached Antarctica. The mention of how the flu "follows feathered friends" supports the assertion in the main body text that migrating birds may be the reason that the virus is being detected more frequently in Antarctica.

