

The Story of Alexander Fleming



Vocabulary

antibiotics, bacteria, determined, experiments, infections, inoculation, laboratory, microscope, miracle, penicillin, pneumonia, protecting, puzzling

students one minute to write as many words as they can that include that letter combination.

High Frequency Words

bread, called, fast, itself, laughed, quickly, school, sports, thought, under, years

Divide each word into two parts (syllables where possible) and write each word part on a card. Have students take turns to turn over two cards, then try to match the pair to make a word.

Select a card that represents the beginning of a word. Ask students to add different endings to make new words, e.g. br – bright, brave, brother, bring.

During Reading

Vocabulary in Context

Discuss the meaning of each vocabulary word. Ask students to look at the word *bacteria*. Ask them if this word is singular or plural. Use a dictionary to find the meaning of this word. What do you notice? Talk about the singular word *bacterium*. Explain that we rarely use the singular word because the microorganisms are evident in huge numbers.

Discuss the prefixes *anti-* and *micro-*. How do they change the meaning of the root word? Make lists of words that begin with these prefixes: *anti-*, meaning against or opposed to – antibiotic, anticlimax, anticlockwise; *micro-*, meaning small or minute – microbiology, microfilm, microscope, microphone.

Checking for Meaning

Literal:

What is the name of the group of drugs that fight bacteria? (Antibiotics)

What can happen if a person's body has too many bacteria? (They can become sick and die.)

Before Reading

Motivation / Purpose

The purpose of this text is to retell the events that led to the discovery of penicillin. This text links with the Science theme *Science and Society*.

Text Type

Draw students' attention to the:

- title
- photographs and captions
- box feature
- subheadings
- contents page.

Ask, "What type of book is this?" (Recount). Who is this text about? How will this text be set out?

Visual Literacy

Look at the front cover. Who is this man? What is he doing? What is he using? What is on the back cover? How would these things be seen? Look at the first few pages of the text. Where and when do you think this text is set? What visual clues led you to these ideas? What do the backgrounds of the headings remind you of?

Background Knowledge

What happened to people who got infections before modern medications were developed. What has changed this? If a wound gets infected, what do we do now? What happened then? Talk about how advances in medical science have allowed people to live safer, longer lives.

Phonological Awareness

Ensure students know the following phonological patterns:

- 'c' for /s/: penicillin (p.5), cells (p.5), medicine (p.5), decided (p.8), juice (p.15), excited (p.15), received (p.22) Locate other examples in the text. Remind students that when the c is followed by the letters e or i, the sound is s.
- /or/: forever (p.5), awards (p.7), water (p.8), causes (p.10), thought (p.16), more (p.17), all (p.21), always (p.22)

Make two lists of words where c says s, one with ci words and the other with ce words.

Say one of the letter combinations from above. Give the

Who were the two other scientists who helped Fleming work on his penicillin tests? (The other two scientists were Ernest Chain and Howard Florey.)

Inferential:

When Fleming went to school in London, why did others laugh at the way he spoke?

What might have happened if Fleming hadn't been given a job in St Mary's Inoculation Department?

Why were doctors excited about the process of inoculation? What did they expect would happen?

Response:

How was Fleming's work improved by the assistance of Chain and Florey?

How would Fleming have felt when he received penicillin as a treatment for his pneumonia?

Grammatical Patterns

Make sure students understand the following components of a recount:

- Orientation providing information about 'what', 'who', 'where' and 'when': ... *penicillin was discovered in October 1928 by a doctor, Alexander Fleming.* (p.4)
- A record of events recorded in chronological order: (pp.6–23)
- A reorientation which 'rounds off' the sequence of events. (p.23)
- Personal comments or evaluative remarks: *Fleming's discovery would change medicine forever* (p.5), *Thanks to penicillin, he survived.* (p.23)
- Use of nouns and corresponding pronouns: *Bacteria – they* (p.5), *Fleming – he* (p.6), *Florey's team – they* (p.19)
- Use of action verbs to refer to events: *discovered* (p.5), *laughed* (p.6), *joined* (p.7), *finished* (p.9), *wrote* (p.17)
- Use of the past tense: *spent* (p.6), *went* (p.6), *laughed* (p.7), *joined* (p.7)
- Use of conjunctions and time connectives: *Today* (p.4), *in October 1928* (p.5), *Then, one day*, (p.19), *At the age of 73* (p.23)
- Use of adverbs and adverbial phrases: *quickly* (p.5), *over the countryside* (p.6), *At his school in London* (p.6), *from sick people in the hospital* (p.11), *Unfortunately* (p.16)
- Use of adjectives to describe nouns: *special* (p.4), *water polo* (p.7), *Inoculation* (p.9), *glass* (p.14), *antibiotic* (p.21), *British* (p.23)

Fluency / Punctuation Patterns

These punctuation patterns occur in the text:

- Capital letters are used for proper nouns: *Alexander Fleming, London, Inoculation Department, First World War, St Mary's*
- Use of commas to separate phrases and dependent clauses from the main clause: ... *penicillin was*

discovered in October 1928 by a doctor, Alexander Fleming. (p.4)

- Use of a dash to create a pause in the sentence: *But, there was a time – not that long ago –* (p.4), *On this dish mould had started to grow – the kind found on old bread.* (p.14)
- Use of quotation marks to highlight invented words: *'mould juice'* (p.15)
- Use of an apostrophe to show ownership: *Fleming's love of sports* (p.8), *St Mary's Hospital* (p.8), *Fleming's boss* (p.16), *Fleming's notes* (p.18), *St Paul's Cathedral* (p.23)

Critical Literacy

Why is a recount an appropriate text type to present this type of information? Is there any other way it could be successfully presented?

Linking Visual and Written

Look at the box feature on page 5. Do you think these features are helpful? Why or why not? What other information in this text could go in a box feature?

Why are there black and white photographs in this text? What effect does their use have on the look of this text?

What help are captions? Does every photograph have one? What extra information do they provide?

After Reading

Use the Internet to find out more about the Nobel Peace Prize. What is it for? How often is it awarded? Make up a table of people who have won it, the years it was awarded, and why each person won it.

Select one of these people of interest to you and write a recount about their work.

Activities

Students will:

- correct false statements and sequence events from the text
- circle words spelt incorrectly and rewrite sentences using correct phonic elements
- make word families using given root words
- rewrite a personal recount as a diary.

Comprehension (meaning) Vocabulary (structure) Phonics (visual) Writing (structure)

