

Scientific Report

Phase 12

The Science of Biotechnology

from *Collections 12* (pages 4–7)

Guided Reading Book Link: *Our Earth, Our Future*

Suggested Resources:

- **Rigby Genre Poster Pack—Stage 3** (Reports)
- other resources about the development of biotechnology
- resources about genetics

Synopsis: This text outlines development in the area of biotechnology—technology involving living things. It deals with how we develop immunity to diseases, how drugs have been developed to counteract disease, the inheriting of genes from one generation to the next, the future of this branch of science and the ethics debate that arises because of developments in this area.

Processes: studying the report genre, exploring and evaluating the use of specific language and vocabulary, comprehending facts and making links between facts, researching

Vocabulary: *Specialised vocabulary:* technology, biotechnology, immunology, immunity, names of diseases, pharmacology, pharmacologists, antibiotics, penicillin, bacteria, microbes, bioremediation, genetics, cloning, genome, stem cell therapy, ethics. *Challenging words:* most specialised words, engineering, agriculture, electronics, mass-production, organisms, caught, vaccinated, medicines, pneumonia, chemicals, poisonous, moulds, science

Grammatical Conventions:

- prefixes—“tech”, “anti”, “bio”, “micro”
- use of verbs
- clauses
- defining of words within text
- conjunctions

Spelling Focus:

- names of different sciences
- words containing the trigraph “ion”

Assessment Focus:

- understanding of the features of report genre
- comprehension of text
- ability to use specific vocabulary and spelling words correctly
- ability to research material; (see **Blackline Master 3**)



Guided Reading

Orientation

Discuss and list the names of different sciences and the field of study related to each.

Discuss the meaning of the prefix “bio”.

Recall the features of a report.

Visual Literacy

Look at the page design—the photographs within circles, the border and background to the text.

Discuss the layout of the text—sections and subheadings.

Reading the Text

Skim the text.

- Locate and discuss any unusual or unfamiliar words.

Examine the structure of the text, read the title and the introduction on page 4.

- What does the introduction tell you about technology?
- What do you expect to find out about living things in the text?

Read the section on immunology.

- What is this science?
- What knowledge has this study given to scientists?

Read the section on pharmacology.

- What is this science?
- What was the first antibiotic?
- How are antibiotics useful?

Read the section on bioremediation.

- What is this study?
- What is it used for?

Read the section on genetics and stem cell therapy.

- What are the key features of these sections?
- Locate and discuss clauses in these sections.

Read the remainder of the text.

- What predictions are being made about the future?
- What are some concerns that people have about biotechnology?

Working with the Text

Scientific Report Structure

Recall the structure of a scientific report. Discuss the introduction and the subheadings used within this report and the way the ethics section is used to summarise people's impact upon the science.

Discuss the use of scientific language, listed grammatical conventions, spelling focuses and vocabulary used throughout the text.

Spelling and Vocabulary

Discuss the term "prefix" and the meanings of "anti", "micro", "tech" and "bio". Locate and list text words that begin with these prefixes. Add to the list known words that begin with these prefixes.

Locate text words containing "ion". Discuss the root word from which each of these comes. What other forms of the word can be produced using the same root?

Learning Centre Activities:



1 Blackline Master 3

- completing sentences
- words and their meanings
- conjunctions
- clauses
- verbs
- glossary
- grouping words

- 2 Have students construct an interview that could be carried out between a researcher and a person who believes development in a particular area of medical science is unethical.

Guided Writing

Returning to the Text

Recall the features of this report. Discuss the presentation of information about the past and present developments of biotechnology and opinions about its future development.

Preparing to Write

Ask students to choose one area of medical science to research, such as a particular disease or the development of x-rays. In preparation for writing a report on this topic, ask them to make a timeline of events that show developments in this area.

Joint Construction

Construct an introduction to the report by making a general statement about the chosen area. Using information from other resources and the timeline, continue the report. Ensure that the language used is relevant to the topic being discussed and that the information included shows how changes have been made in this area of medical science.

Information Report

Phase 10

Drug Testing in Sport

from *Collections 10* (pages 8–9)

Guided Reading Book Link: *Surf's Up!*

Suggested Resources:

- **Rigby Genre Poster Pack—Stage 3** (Report)
- factual texts about sport

Synopsis: Some athletes try to take a short cut by using performance-enhancing drugs. The use of these drugs is banned by sporting bodies. This report describes the legitimate and illegal drugs used by some athletes, their effects and the testing that is used to detect the drugs.

Processes: exploring factual text, exploring the report framework, identifying topic-specific vocabulary, exploring language, spelling and grammar, researching information

Vocabulary: *Specialised vocabulary:* substance, penalties, stimulants, diuretics, hormones, erythropoietin, amphetamines, cocaine, caffeine, ephedrine, salbutamol, asthma, legitimate, pentathlon, addictive, steroids, professionally, testosterone, analysed.
Challenging words: Seoul, Canadian

Grammatical Conventions:

- technical and topic-specific vocabulary
- proper and common nouns
- noun groups
- adjectives—comparing
- use of acronyms
- antonyms
- punctuation—dashes, commas, capital letters

Spelling Focus:

- plural endings
- suffix “ness”—alertness, tiredness
- “ive” spelling pattern—competitive, aggressive
- base words and endings

Assessment Focus:

- knowledge of report structure
- understanding of grammatical features
- ability to read with understanding
- comprehension of text; (see **Blackline Master 4**)



Guided Reading

Orientation

Invite students to share what they know about sport, Olympic Games and drug testing.

Revise the structure and features of an information report.

Visual Literacy

Discuss the layout of the pages. Examine the photographs and the use of a background picture and discuss how they relate to the text.

Reading the Text

Have students read the opening paragraphs.

- What information is provided?
- What is the report describing?
- How do some athletes take short cuts?
- Why are the use of PEDs banned?
- What happens if an athlete is found to have taken a banned substance?

Read the first three paragraphs of the section on the kinds of drugs athletes can use.

- What drugs are permitted?
- What do stimulants do?

Read the two paragraphs on the use of painkillers and diuretics.

- What do these drugs do?

Read the two paragraphs on steroids and other hormones.

- What do steroids do to muscles?
- What do steroids do to athletes?

Read the two paragraphs on testing.

- How are tests carried out?
- Why is one sample frozen?
- Why is taking PEDs risky?

Working with the Text

Information Report Structure

Discuss how this text fits the structure of an information report (general statement, description, then conclusion).

Identify and discuss grammatical conventions used in the text, such as technical and topic-specific language, proper and common nouns, noun groups, adjectives, acronyms, antonyms.

Spelling and Vocabulary

Locate nouns in the text. Identify and group different types of nouns, such as common and proper. Emphasise the need for capital letters for proper nouns.

Identify noun groups in the text. Discuss the use of adjectives in building up noun groups.

Explore the first sentence in some paragraphs. Discuss how it sets the context for the rest of the paragraph.

Identify comparing adjectives, such as “bigger”, “stronger”, “more aggressive”, “more competitive”.

Identify antonyms in the text, such as “increase–reduce”.

Identify the “ive” spelling pattern and list words from the text (competitive, aggressive, addictive). Discuss the part of speech—adjectives.

Identify the acronym “PED” for performance enhancing drugs.

Locate words in the text with the suffix “ness” (“alertness”, “tiredness”). Discuss the suffix “ness” forming nouns of quality or state. Brainstorm and list other words that end with “ness”.

Study punctuation. Identify the dash as a punctuation marker to indicate a break or pause in a sentence.

Learning Centre Activities:



1 Blackline Master 4

- completing sentences
- identifying key points
- summarising main points
- spelling
- suffixes
- designing a brochure

- 2 Have students research and make notes about a sporting event involving a drug controversy. Ask them to note where this happened, the sport concerned, the athlete and the outcome.

Guided Writing

Returning to the Text

Revise the structure and features of an information report and how this text fits that structure.

Preparing to Write

Brainstorm facts about the researched event. Organise facts under selected subheadings.

Joint Construction

With students’ input, jointly construct an opening statement. Check against the information in the text. Continue using collected facts to write sentences under the subheadings. Draft and revise sentences for each of the topic paragraphs keeping in mind the elements of an information report.

Information Report

Criminals Ride the Internet

from *Collections 11* (pages 10–11)

Guided Reading Book Link: Mystery@bob001.com

Suggested Resources:

- **Rigby Genre Poster Pack—Stage 3** (Reports)
- information about Internet shopping

Synopsis: This report provides an insight into cyber-crime—the way criminals make use of the Internet for illegal gain.

Processes: exploring factual text, exploring report framework, locating words

Vocabulary: *Specialised vocabulary:* Internet, email, online, credit cards enjoyment, crimes, cyber-crime, cyberspace, money, computers, cyber criminals, gang, retail shops, fake, stolen, credit card fraud. *Challenging words:* convenience, illegally transfer, prevalent, accounts, purchase, statement, rejected, sales staff

Grammatical Conventions:

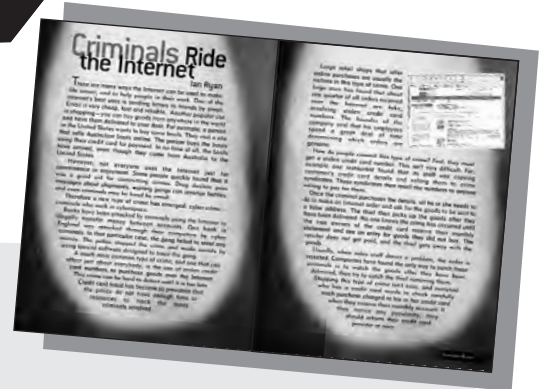
- use of present tense
- objective stance of writer
- topic paragraphs
- organisation of information
- use of noun groups to expand information
- variety of sentence structures for different effects

Spelling Focus:

- words with multiple meanings

Assessment Focus:

- knowledge of report structure
- grammatical features of report structure
- location of words with multiple meanings; (see **Blackline Master 5**)



Guided Reading

Orientation

Ask students what they already know about the use of the Internet, credit card use and problems their families may have encountered with electronic cards or purchases.

Discuss the framework and features of an information report.

Visual Literacy

Note the photograph and background chosen by the designer to accompany this text. Why would more imaginative illustrations be inappropriate?

Reading the Text

Read through the text and note the topics addressed by the author. (Students will discover an introduction followed by cyber-crime, credit card fraud and retail shopping.)

- How does the author introduce the subject?
- Why is it introduced in this way?
- What is the author assuming the reader already knows?
- What new information has the reader been given?
- What could a retail store do to minimise the occurrence of credit card fraud?
- What could a consumer do to minimise credit card fraud?
- What effect does this kind of fraud have on the store? What effect does it have on banks? What effect does it have on the consumer?

Working with the Text

Information Report Structure

Discuss how this text conforms to an information report structure. Compare this report to other types of reports. What differences are there? What similarities are there?

Spelling and Vocabulary

Locate words that have more than one meaning, or words that have different shades of meaning. “Type”, for example, can be used as in “A new type of crime”, and as in “Type the words on the screen”. (Words that are spelt the same, but have totally different meanings, are called homonyms.)

Discuss the different word meanings and how these may have originated. Consider the root words and whether the root words come from Latin, Greek or other origins.

Locate the technical words related to computers and computer use. Discuss which words were in use a hundred years ago and what the meanings were then compared to today.

Consider other words that have changed as the time and culture has changed.

Learning Centre Activities:



1 Blackline Master 5

- words and meanings
- locating information
- writing questions for a survey
- carrying out a survey
- words in context
- noun groups

- 2 Have students select a partner or a group and discuss the effects of credit card fraud. Select three students to be interviewed on this subject: one representing a bank, one a store and one a consumer. Have students prepare questions for the representatives of the different sections of the community.

Guided Writing

Returning to the Text

Recall the text and how the author addressed the subject. Consider a new information report based on class activities regarding the effect of credit card fraud. Research and prepare notes on the topic areas.

Preparing to Write

Organise notes into topic areas. Rationalise the notes, eliminating irrelevant information and adding or expanding new information.

Joint Construction

With students' input, jointly construct an information report on the effects of credit card fraud.

Make constant reference to the features of an information report as the text is constructed.

Information Report

Precious Treasures

from *Collections 12* (pages 10–13)

Guided Reading Book Link: *The Galapina Treasures*

Suggested Resources:

- **Rigby Genre Poster Pack—Stage 3** (Reports)
- pictures of famous pieces of art work
- factual texts about museums and galleries

Synopsis: This factual text tells us about some of the famous museums in the world and their historical and valuable treasures. There are facts about the Museum of Qin Terracotta Warriors in China. It tells of the famous painting of Vincent Van Gogh called *Irises*, housed in the J. Paul Getty Museum in America. In the British Museum in the United Kingdom (the oldest museum in the world) there are treasures from the famous *Sutton Hoo* burial ship.

Processes: studying and evaluating the report genre, exploring and evaluating the use of specific language and vocabulary, comprehending facts and making links between facts, researching

Vocabulary: *Specialised vocabulary:* museum, treasure, warriors, names of museums, famous people, art pieces and places, buried, terracotta, soldiers, paintings, sculpture, photographs, mummies, archaeologist. *Challenging words:* wonderful, weapons, ceiling, warriors, carriages, guardians, asylum, suicide, committed, mysterious, cauldron, proper nouns

Grammatical Conventions:

- use of adjectives
- proper nouns
- verbs with the suffixes “ing” and “ed”
- use of the comma in complex sentences

Spelling Focus:

- names of things found in museums
- words containing the vowel digraph “ea”

Assessment Focus:

- understanding features of the report genre
- comprehension of text
- using specific vocabulary and spelling words correctly
- understanding and using listed grammatical conventions
- ability to research material
- ability to use a dictionary effectively; (see **Blackline Master 6**)



Guided Reading

Orientation

Discuss museums and make a list of artefacts that can be found in these “houses of treasures”.
Question the students about museums and galleries

that they may have visited and famous pieces housed in them.

Discuss how art pieces become famous and the techniques used to locate some of these pieces from the past.

Visual Literacy

Discuss the photographs of famous art works and the information in the captions beneath them. Draw attention to the layout of the text, such as the headings for each section.

Reading the Text

Examine the structure of the text, read the title, introduction and glance at the pictures.

- Ask students to make predictions about the content of the text—places, treasures, famous artists, and so on.
- Skim the text and locate and discuss any unfamiliar words.

Read the section on the buried warriors.

- Where is the Museum of Qin Terracotta Warriors located?
- What description was written about Qin Shi Huang's tomb?
- What discoveries were made in 1974 and 1976?
- Why haven't archaeologists uncovered the tomb?

Read the section on Vincent Van Gogh's *Iris*s.

- Where can the painting *Iris*s be found?
- What do you discover about Van Gogh?
- How many paintings did Van Gogh complete during his year in the asylum?

Read the section on the *Sutton Hoo* burial ship.

- What can be found in the British Museum?
- What did Basil Brown find during his excavations?
- What were the latest discoveries at the *Sutton Hoo* site?

Working with the Text

Information Report Structure

What features of this text indicate that it is a report? What is the opening statement that is built upon throughout the text? How does the author make use of chronological developments in different sections of the text?

Locate and discuss the use of listed grammatical conventions, specific spelling and vocabulary.

Spelling and Vocabulary

Make a list of all the text words that name things that can be found in museums. Discuss the letter and sound combinations in each. Group the treasures according to different criteria, such as

two- and three-dimensional objects, paper or canvas creations, pottery creations, and so on.

Locate and list "ea" words in the text. Discuss the different sounds produced by the "ea" combination in each of the words. Add other words to each group of different sounds.

Discuss and use dictionaries to help find meanings for listed vocabulary.

Discuss the features of the listed challenging words. Have students share ideas about how they can remember the spelling of these words.

Learning Centre Activities:



1 Blackline Master 6

- writing summary paragraphs
- researching and reporting on an artist
- writing a description of a painting
- use of adjectives and proper nouns
- commas in complex sentences
- words used in different contexts
- creating a crossword

- 2 Have students compile a list of famous museums throughout the world. Ask them to write the name of the museum, the city and the country in which it is found and a famous piece from each.

Guided Writing

Returning to the Text

Recall the features of this information report. Discuss how this text fulfils the requirements of the report genre. Why is it called an information report?

Preparing to Write

Have students research and prepare to write an information report about a thing or a collection that is housed within a museum or gallery of their choice. Ask them to take notes on who made or created the piece, the country from which it came, the period to which it belonged and famous people associated with the piece.

Joint Construction

Construct the introduction to the report. Use students' notes to continue the report. Check that adequate detail has been included, that information is factual and that spelling and grammar are correct.

Sports Report

Phase 10

Riding the Waves at the World Championships

from *Collections 10* (pages 10–11)



Guided Reading Book Link: *Surf's Up!*

Suggested Resources:

- factual texts about surfing, surfing competitions

Synopsis: This sports report gives some details of the competitors at the surfing competition, the Billabong. It includes various surfers' comments about the event.

Processes: exploring factual text, exploring the report framework, identifying topic-specific vocabulary, researching information, exploring language, spelling and grammar

Vocabulary: *Specialised vocabulary:* quarter-finals, tournament, eliminating, inaugural, opponent, Cavaliers. *Challenging words:* significance, consecutive, dominance, fortunate, guaranteed

Grammatical Conventions:

- topic-specific language
- past tense
- proper and common nouns
- use of punctuation
- verbs—action, saying, feeling, relating
- direct speech

Assessment Focus:

- knowledge of report structure
- understanding grammatical features
- ability to read with understanding
- comprehension of text; (see **Blackline Master 7**)

Spelling Focus:

- “ion” words
- word building—champ, champion, championship
- “ate” endings as in “fortunate”

Guided Reading

Orientation

Invite students to share what they know about surfing and sporting competitions.

Revise the structure and features of a sports report.

Visual Literacy

Discuss the layout of the pages. Examine the photographs and discuss how they help us to understand the text. Identify what is in each photograph. Discuss the beach background and its relevance to the text.

Reading the Text

Have students read the opening paragraph.

- What information is provided?
- What is the report describing?

Read the next three paragraphs.

- What did Anderson win?
- What stopped her competing in 1998?

Read the paragraph about Beachley.

- What was her score?

Read the paragraphs about Occhilupo.

- Who is the current world champion?

Read the paragraphs about Wills and Campbell.

- What country are they from?
- Who achieved the higher score?
- How do you know they're friends?
- What would it be like to win a world championship?

Working with the Text

Sports Report Structure

Discuss how this text fits the structure of a sports report.

Identify and discuss grammatical conventions used in the text, such as topic-specific language, past tense, proper and common nouns, punctuation, types of verbs and direct speech.

Spelling and Vocabulary

Identify the present tense of the past-tense verb "snuck". Discuss this type of colloquialism.

Locate nouns in the text. Identify and group different types of nouns such as common and proper. Emphasise the need for capital letters for proper nouns.

Study punctuation. Identify the comma as a punctuation marker that indicates separation between parts of a sentence. Identify the ellipsis as a punctuation marker that indicates the omission from a sentence of a word or words. Identify the quotation marks used for direct speech.

Locate verbs in the text. Identify and group different types of verbs, such as action, saying, feeling and relating. Compile lists.

Identify the word building in champ-champion-championship. Discuss the base words and endings.

Skim the text to locate words with the "ion" spelling pattern (expression, session, champion).

Identify the "ate" ending in "fortunate". Discuss the spelling and pronunciation. Brainstorm and list other words.

Learning Centre Activities:



1 Blackline Master 7

- word definitions and dictionary skills
- past-tense verbs
- sentence writing
- spelling
- base words
- punctuation
- researching

- 2 Have students research and make notes about one of the surfing champions mentioned in the report or another that they know of. Ask them to note the surfer's name, country, previous placings, injuries and other details. They can then write a script for a TV sports report giving this information and indicating what graphics should be shown to accompany each part of the report.

Guided Writing

Returning to the Text

Revise the structure and features of a sports report and how this text fits that structure.

Preparing to Write

Brainstorm facts about the researched surfing champion. Organise facts under selected subheadings.

Joint Construction

With students' input, jointly construct an opening statement. Check against the information in the text. Continue using collected facts to write sentences under the subheadings. Check vocabulary, punctuation, grammar, spelling and sports report style.