BRAINWAVES

Non-fiction to grab the grey matter!

BLUE SET

Teaching Guide

Contents

**Badger
Publishing**

Introducing Brainwaves

Reading, comprehending and writing non-fiction

The *Brainwaves* series is a resource for teaching the reading, comprehension and writing of non-fiction. Each set of *Brainwaves* has six **non-fiction** books and one Teaching Guide:

Green   - Reading Age 7+   Interest Age 7-13
Orange   - Reading Age 8+   Interest Age 8-13
Purple   - Reading Age 9+   Interest Age 9-14

This Blue set is for pupils with a reading age of 6+ and an interest age of 6-13.

Brainwaves books are full-colour chapter books that grab pupils' attention and encourage their active involvement. Even the most reluctant readers will be motivated to read on because their interests are catered for by the topics chosen, and the design and visual appeal of the books.

Non-fiction is probably the most important kind of writing for success at school and work. Almost everything we write is non-fiction. We write to inform, discuss, explain, persuade, teach, direct and so on. Adults use many strategies to read and write non-fiction, usually without knowing they are doing so. These strategies can be analysed, broken down into simple steps, and **they can be taught**.

The *Brainwaves Teaching Guide* provides the background knowledge you will need to teach a wide range of strategies for reading, writing and understanding non-fiction. There are several **Lesson Plans** for each book in the series devoted to reading, comprehending and writing non-fiction. These lesson plans can be used to teach specific reading, comprehension and writing strategies and skills, or for support when teaching a particular **text type**. They can also be used to address questions that arise during the course of a pupil's own reading or writing and they can be adapted to suit the needs of an individual pupil, a small group or the whole class. Accompanying the lesson plans for each of the *Brainwaves* books are **Copymasters (CMs).** They are directly integrated with the lessons.

Each lesson plan involves the following stages:

- teacher models the strategy
- pupils practise the strategy, first with guidance, then independently
- pupils apply the strategy to real reading, writing and comprehension tasks.

In this way, each lesson is designed to allow gradual release of responsibility from the teacher to the pupil. Guidelines can gradually be done away with as pupils become more competent in using a particular strategy.

The integration of reading and writing with high-interest themes in the areas of **Science and Technology** and **Society and the Environment**, means that the *Brainwaves* books are ideal for use in **literacy** teaching, or for a thematic unit linked to a topic. See the **Overview on page 6** for a helpful list of ways into the books. The Teaching Guide also integrates **activities from other Key Learning Areas**. You can dip into or adapt these activities to the needs or interests of your pupils or a theme you are working on.

Reading and comprehending non-fiction

Pupils usually have more experience with narrative text, generally based on the structure of orientation, complication and resolution. However, even pupils who are comfortable with the narrative form may find non-fiction texts more difficult. One reason for this is that **non-fiction has** a **variety** of structures (see p4). Current research shows that **when pupils are familiar with these structures, their comprehension improves**. Strategies to help you teach these structures are set out on the next page.

Comprehension strategies

Teaching strategies used in *Brainwaves* Blue to help pupils read and understand non-fiction are:

Previewing - pupils use background knowledge, make predictions and set a purpose for their reading.

Self-questioning - pupils generate questions to guide their reading.

Making connections - pupils relate reading to themselves, to the text and to others.

Visualising - pupils create mental pictures while reading.

Knowing how words work - pupils develop their vocabulary, and figure out unknown words by using their knowledge of letters, sounds, sentence construction and their understanding of the meaning of the text.

Monitoring - pupils ask, 'Does this make sense?' and use different strategies if it doesn't.

Summarising - pupils pull together the most important ideas in a text.

Evaluating - pupils make judgements about what they are reading.

Writing non-fiction

In a balanced literacy programme, writing is as important as reading. During the reading sessions, pupils learn comprehension. During the writing sessions, they learn how to think about, plan, draft, revise and share their work as writers. **Guided writing lessons** help you to teach targeted skills and strategies. The **Lesson Plans** give detailed notes showing you how to model strategies and guide pupils through each stage of the writing process.

Questioning and answering techniques

It is most important for comprehension that pupils learn how to ask and answer all kinds of questions, both *literal and higher order*. In this guide, the following terminology is used:[1]

Here **questions** are those whose answers can be found in the text, usually in one sentence. We can point to their answers in the text.

Hidden **questions** are those whose answers can be found in the text, but not in one place. Pupils may need to reorganise, classify, sequence or summarise the information.

Head **questions** require pupils to think, to use their imaginations, past experiences and knowledge, as well as the information from the text. Pupils are asked to make evaluations and judgements about what they read in relation to its truth, accuracy, acceptability, worth, probability and desirability. They often require pupils to 'read between the lines'.

Heart **questions** require pupils to make emotional responses to the content, characters, happenings, language and imagery of the text.

This kind of questioning not only helps assess the extent to which a pupil has understood the text, but actually **teaches comprehension** of the text.

Writing folders

Pupils probably already have writing folders containing their work at various stages of the writing process. Some of the *Brainwaves* writing tasks can be added to these folders to be refined later. Teachers can apply methods outlined in the *Brainwaves* lessons to other written work too. Use the Overview on page 6 to find a lesson in which a particular stage of writing or a particular text type is the focus.

Stages in the writing process

Prepare, **O**rganise, **W**rite, **E**dit, **R**evise, **S**hare.[2]

Easy to teach, as the beginning letters of each stage together spell the word **P O W E R S** .

Prepare: Choose the topic, then read, research, discuss and brainstorm it to gather thoughts and ideas. Determine the audience and purpose of the piece and write the main idea.

Organise: Separate the content from the process of *sequencing*. Use a *planning sheet* to list the key words, or take notes on the content. Cross out ideas not relevant to the **t**opic, **a**udience and **p**urpose (TAP). Group ideas that could go together in one sentence. Number the ideas in the order in which they are to be written.

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1 Based on work by Graham, L & Wong, BYL 1993, UNE.
2 Raphael, TE, Kirschner, BW & Englert, CS 1988.

Write: Write in sentences using paragraph form. Take a new paragraph for each new point or feature.

Edit: *Clarify and improve* the work. Do this at whole piece, paragraph, sentence and word levels. Use a checklist. Check for topic sentences, clear ideas and supporting details, logical order and linking words. Read the piece aloud or think about how the writing will sound to a partner.

Revise: Polish the style, spelling, grammar and punctuation. Add a heading and the date. Write neatly with correct letter formation.

Share: Make the piece available for others. This provides motivation for revising and proofreading again. Not all writing needs to be published. Edit again and revise if necessary.

Pupils will probably not complete all stages in one session. Each session they should think about which stage they are at, and apply the strategy for it.

Features of good writing

The Writing Lessons in this guide teach some basic features of good writing, including:

Clear, focussed ideas and details.

Organisation that shows coherent structure, sequencing and idea development.

A tone and point of view appropriate to the purpose and audience.

Word choice that is appropriate to the purpose and audience and effectively conveys the message.

Fluency of sentences so that the writing has flow and rhythm, and is easy and enjoyable to read.

Conventions of punctuation, capitalisation, spelling, paragraph breaks, grammar and usage.

Factual text types

Pupils need to keep their **purpose and audience** in mind, as this determines the text type or structure of their writing. Most writing combines several text types, e.g. an information report may have description and recount elements embedded in it. Pupils need to recognise different text types, and name the forms and language features they use, in order to use them in their own factual writing.

Factual text types include:

Description: to describe the features of a particular thing.

Recount: to tell what happened, to record past experiences and judge their importance, or to record a series of events in chronological order.

Instructions: to tell how to do something.

Explanation: to explain stages or steps something goes through, or how or why something happens.

Information report: to present factual information or to describe a class of things in general terms.

Discussion: to look at different points of view on an issue, to present different opinions, or to examine an issue and make recommendations.

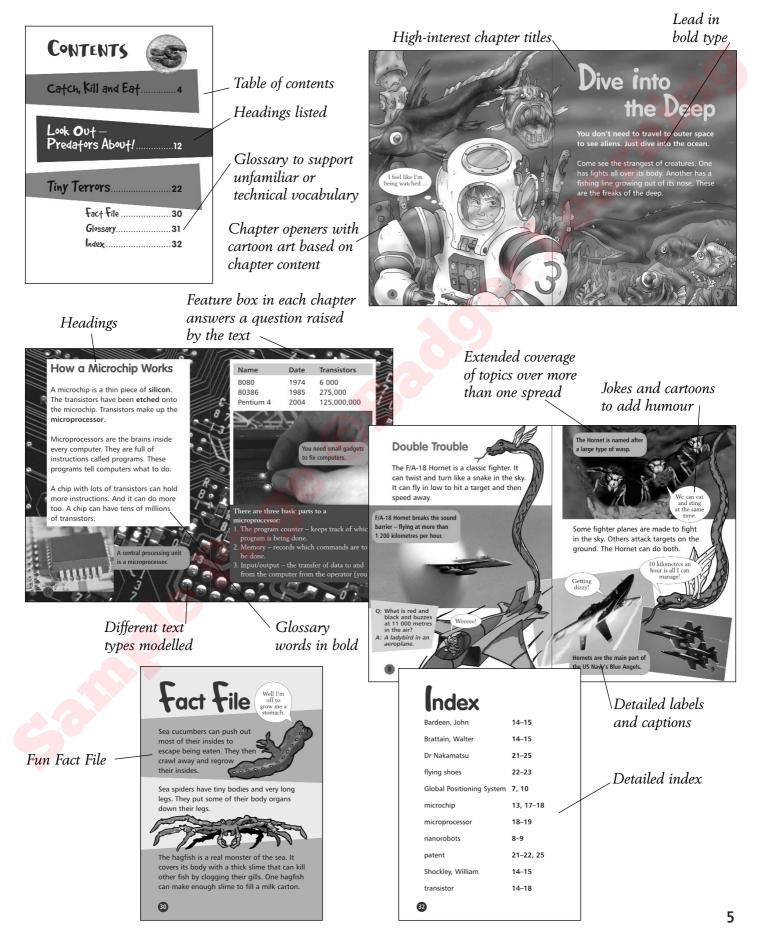**Argument:** to argue for or against a point of view.

Persuasion: to persuade people to accept a point of view, or to act in a particular way.

Response: to summarise a text, respond to a text or work of art, or to analyse a text or work of art.

Non-fiction text supports in Brainwaves

The layout and text of every *Brainwaves* book supports pupils' reading of non-fiction. Pupils can spend more time on making connections with the text than on decoding it.

Contents

Table of contents

Headings listed

Glossary to support unfamiliar or technical vocabulary

Chapter openers with cartoon art based on chapter content

High-interest chapter titles

Lead in bold type

Dive into the Deep

You don't need to travel to outer space to see aliens. Just dive into the ocean.

Come see the strangest of creatures. One has lights all over its body. Another has a fishing line growing out of its nose. These are the freaks of the deep.

I feel like I'm being watched …

Headings

Feature box in each chapter answers a question raised by the text

How a Microchip Works

A microchip is a thin piece of **silicon**. The transistors have been **etched** onto the microchip. Transistors make up the **microprocessor**.

Microprocessors are the brains inside every computer. They are full of instructions called programs. These programs tell computers what to do.

A chip with lots of transistors can hold more instructions. And it can do more too. A chip can have tens of millions of transistors.

Name	Date	Transistors
8080	1974	6 000
80386	1985	275,000
Pentium 4	2004	125,000,000

You need small gadgets to fix computers.

There are three basic parts to a microprocessor:
1. The program counter – keeps track of which program is being done.
2. Memory – records which commands are to be done.
3. Input/output – the transfer of data to and from the computer from the operator (you

A central processing unit is a microprocessor.

Different text types modelled

Glossary words in bold

Extended coverage of topics over more than one spread

Jokes and cartoons to add humour

Double Trouble

The F/A-18 Hornet is a classic fighter. It can twist and turn like a snake in the sky. It can fly in low to hit a target and then speed away.

F/A-18 Hornet breaks the sound barrier – flying at more than 1 200 kilometres per hour.

Q: What is red and black and buzzes at 11 000 metres in the air?
A: A ladybird in an aeroplane.

Weeeee!

Getting dizzy!

The Hornet is named after a large type of wasp.

We can eat and sting at the same time.

Some fighter planes are made to fight in the sky. Others attack targets on the ground. The Hornet can do both.

10 kilometres an hour is all I can manage!

Hornets are the main part of the US Navy's Blue Angels.

Detailed labels and captions

Fact File

Well I'm off to grow me a stomach.

Sea cucumbers can push out most of their insides to escape being eaten. They then crawl away and regrow their insides.

Sea spiders have tiny bodies and very long legs. They put some of their body organs down their legs.

The hagfish is a real monster of the sea. It covers its body with a thick slime that can kill other fish by clogging their gills. One hagfish can make enough slime to fill a milk carton.

Fun Fact File

Index

Detailed index

Brainwaves Blue Set Overview
INTEREST AGE: 6+ READING AGE: 6+ INTEREST AGE: 6–13

Themes	Modelled Text Structures *Page references are to pupil books*	Modelled Visual Literacy Features *Page references are to pupil books*	Guided Comprehension Lesson Focus	Non-fiction Writing Lesson	Integrated Activities
Predators Being preyed upon Camouflage Survival Food chain	Description 6-7, 16-17, 20-21 Explanation 10-11 Factual recount 6-11, 14-21 Information report 6-11, 24-27	Break-outs 9, 15, 17, 21, 24, 26, 29 Diagram 10-11, 29 Labelled photo 7 Table 21	Previewing, self-questioning, making connections, knowing how words work, summarising, evaluating. Literal and higher order questioning CM 1	Process: preparation, organisation, writing, sharing Text type: explanation, designing and writing a warning sign Feature of good writing: all features CM 1, CM 2	Visual Arts CM 3
Dinosaurs Excavation sites Rivalry between fossil hunters Sedimentary rock Finding and preserving fossils Work done by museums	Factual recount 6-7, 10-11, 16-19, 28-29 Description 14-15, 24-29 Explanation 28-29 Break-outs 7, 19, 24, 27-28	Captions 7-9, 24-26, 29 Cartoon 6-7 Diagram 14-15, 24-27 Illustration 24-25 Labelled diagram 14 Map 10-11 Table 21 Timeline 8-9	Knowing how words work which involves all strategies CM 4	Process: preparation, organisation, writing, editing, sharing Text type: instruction Features of good writing: organisation, word, choice, fluency, conventions CM 5, CM 6	English/Maths CM 6
Ocean zones Creatures that live in the ocean Defence methods Strange features Adaptation to lack of light Survival Hunting methods	Factual recount 6-19, 22-25 Explanation 7-10, 22-25, 28-29	Break-outs 7-9, 11, 15 Labelled diagram 6 Illustrations 7-11 Jokes 10-11, 19, 25 Sign and caption 7 Speech bubble 11, 19, 24, 27	Knowing how words work CM 7	Process: preparation, organisation, writing, editing, sharing Text type: report Features of good writing: clear ideas, point of view, organisation, word, choice, fluency, conventions CM 8, CM 9	Poetry, Visual Arts, Science
Emergency services Role of police, fire brigade and ambulance Casualty ward of hospital	Factual Recount 5, 6, 8-19, 22-25, 28-29 Instructions 8-11 Description 12-19, 26-27 Explanation 12-19	Break-outs 7, 11, 19, 21, 27 Captions 6, 8, 10, 14-15, 18, 20 Illustrations 4, 12-13, 16, 21 Labelled photograph 25	Knowing how words work CM 10	Process: preparation, organisation, writing, editing, sharing Text type: report/explanation Features of good writing: organisation, word, choice, fluency, conventions CM 11, CM 12	Drama, English, Music, Research and Computer Studies
Military aircraft Speed of sound Ejection seats	Description 8-11, 18-21, 24-25 Explanation 6-7, 12-15, 26-27	Break-outs 6, 14, 16, 19 Captions 8-11, 14-17, 20, 24-25 Jokes 8, 15, 24 List 27 Timeline 27 Table 11	Knowing how words work CM 13	Process: preparation, organisation Text type: discussion - comparison Features of good writing: organisation, word choice, fluency CM 14	Visual Arts, English, Science and Technology, Human Society CM 15
Gadgets and gizmos Nanotechnology Inventors and inventions Transistors, microchips and microprocessors	Description 8-9 Explanation 10-11, 18-19 Report 22-25	Break-outs 8-9, 22 Captions 10-11, 16, 18, 24, 26-29 Illustrations 4, 5 Jokes 14, 22 List 19 Table 19 Timeline 16-17	Making connections Literal and higher order questioning and answering Knowing how words work CM16	Process: preparation, organisation, writing, editing, revising, sharing Text type: factual recount Features of good writing: organisation, word choice, conventions, fluency CM 17, CM 18	Visual Arts, Society and the Environment, English, Science and Technology/ Computer Studies, Drama

Links to the National Literacy Strategy

These materials complement the earlier series of Green, Orange and Purple sets of Brainwaves books and can, like them, be used by teachers in Year 2 to Year 7 to support the reading and writing of non-fiction genres. They will be particularly successful to motivate reluctant readers who may be reading below age-related expectations. While multiple copies of the books can be used for whole class shared reading, the first and second lesson plans are ideal for supporting guided reading sessions. They provide examples of different types of questions directly linked to the Assessment Focuses for Reading used to assess pupils' performance in reading in National Curriculum tests. The 'here' and 'hidden' questions cover Assessment Focus 2 – *understand, describe, select or retrieve information, events or ideas from texts and use quotation and reference to text*. The 'head' questions link to Assessment Focus 3 – *deduce, infer or interpret information, events or ideas from texts* while the 'heart' questions require a more personal response from the reader, based on their experience and exploration of the text, and therefore relate to Assessment Focus 4 – *identify and comment on the structure and organisation of texts, including grammatical and presentational features at text level*, Assessment Focus 5 – *explain and comment on the writer's use of language, including grammatical and literacy features at word and sentence level* and Assessment Focus 6 – *identify and comment on writer's purpose and viewpoint and the overall effect of the text on the reader*.

The writing lesson plans provide some guidance for word and sentence level features of the text types under consideration and ensure the teacher demonstrates and supports the pupils before they attempt any independent writing. By providing linked lesson plans, the recommended teaching sequence has been maintained, and there are many opportunities to introduce Speaking and Listening activities into the guided or follow-up work. Useful cross-curricular links are provided, many incorporating further Speaking and Listening techniques, including drama.

By stating clear success criteria for the three elements of Speaking and Listening, Reading and Writing, teachers can monitor and assess their pupils' progress on a regular basis. The bulleted points could be linked to curricular targets relating to non-fiction reading and writing and layered to form pupils' specific targets in each of the three areas. The follow-up activities on the Copymasters allow pupils to practise and demonstrate their learning and interact with the texts in a meaningful way.

These materials support teachers to cover the key reading and writing skills outlined in the Framework and links can be made to both the *Target Statements for Reading* and *Target Statements for Writing*.

Predators

Summary of content and text types

Chapter 1: Danger on the Doorstep

p4-5 Catchy **opening** and **introduction** to predators.
p6-7 **Recount, description** and elements of **factual report** on mantises as predators, such as lists of facts and generalisation. Concept of camouflage introduced.
p8-9 **Recount** and elements of **factual report** on bats as predators.
p10-11 **Recount** and elements of **factual report** on snakes as predators.

Chapter 2: Look out - Predators About!

p12-13 **Introduction** to grass-eaters on African plains as prey.
p14-15 **Recount** of their migrations. **Explanation** of why wildebeest plunge into rivers. **Commentary** on chances of survival of young wildebeest.
p16-17 **Recount** of crocodile killing wildebeest **Descriptions** of how crocodiles kill their prey.
p18-19 **Recount** of hyenas attacking a herd of wildebeest and singling out a young one. List of facts about hyenas.
p20-21 **Recount** of lions attacking a wildebeest. **List** of facts about lions. **Description** of lion killing zebra.

Chapter 3: Tiny Terrors

p22-23 **Introduction** to insect-eating predators such as the shrew.
p24-27 Elements of factual report about shrews.
p28-29 Introduction to concept of food chain - animals can both prey and be preyed upon.
p30 **List** of facts about different predators.

Visual literacy features

Speech bubbles - e.g. p7-8, 10-11, 15-16, 18
Cartoon with captions - p10-11
Break-outs (extra information given in a separate box or space) - p9, 15, 17, 24, 26
Table about eating habits of predators - p21
Diagram of food chain - p28
Labelled diagram of praying mantis - p7

Focus of reading lesson

Comprehension: Literal and higher order questioning and answering. Figurative and technical language. This involves previewing, self-questioning, making connections, knowing how words work, summarising, evaluating.

Focus of writing lesson

Text type/form: explanation
                    warning sign

Process: preparation, organisation, writing, sharing
Good writing features: involves all features

Success criteria

Listening and speaking

On completion of the lessons, a pupil is able to:
- brainstorm ideas about predators, and orally summarise them.
- identify and answer literal, inferential and higher order thinking questions about a non-fictional text.
- create own literal, inferential and higher order thinking questions about a non-fictional text.
- discuss and understand language on the topic of predators.
- identify nouns, verbs, adjectives and adverbs.

Reading and viewing

On completion of the lessons, a pupil is able to:
- predict contents of a book from browsing.
- use context clues to work out the meaning of a text.
- identify elements of a non-fiction report, such as use of facts and generalisations.
- identify technical language in a text.
- identify the use of figurative language in a text.
- match words in the field of science with their definitions.
- identify elements of the text-types recount, description, factual report and explanation.

Writing and drawing

On completion of the lessons, a pupil is able to:
- design, draw and write a warning sign.
- identify the structural and grammatical elements of a factual explanation. Reconstruct a factual explanation in sequence from its given parts.
- design a camouflage pattern and 'hide' a cut-out drawing of an animal on it.

Lesson plan 1 – Reading non-fiction

Lesson preparation

- copies of **text** to be used: *Brainwaves* Blue level *Predators*
- large sheet of cardboard for a chart; pen

Introducing the topic – Predators

1 Write 'predators' in the middle of the board and brainstorm words, phrases and sentences associated with predators. Prompt with questions such as, **Who** or **what** do you think predators are? **Where** do they live? **What** do they eat? **How** do they hunt?

2 On the cardboard sheet, draw three columns: What we know about predators/ What we would like to know about predators/ What we have learnt about predators.

3 Ask pupils to summarise the information from the brainstorming session orally. Record this in 1st column of the chart.

4 Ask pupils what they would like to find out about predators. Prompt with questions. Summarise responses in 2nd column. Add to this during reading of *Predators*.

5 The 3rd column is to be completed at the end of the unit of work, to consolidate.

Introducing the book – *Predators*

Pupils predict from the front cover what the book will be about, why and for whom it was written and text types it might have. They flip through, gathering clues from the contents page, back cover, glossary, index and visual images such as diagrams, charts, graphs and tables, making more predictions. Ask for comments on layout, such as headings, paragraphing, font types and sizes, bold type, bullets, numbering and italics.

Guided questions on Predators

See page 18 for information on 'here, hidden, head and heart questions.'

Here questions

What are predators looking for?
How do snakes eat their prey?

Find *break-outs* on pages 7, 9, 10, 11, 17, 19, 24, 25, 27, 29. (Break-outs are separate bits of text that give extra information - often written in a box.)

Hidden questions

What are the names of some predators in this book?
How does a praying mantis catch its prey?
What does camouflage mean?
What do praying mantises kill and eat?
What do bats eat?
What do vampire bats do to their prey?
What is another word for venom?
Which animals are cannibals?

Head questions

If you were a predator, how would you catch your prey?
Why do you think animals use camouflage?
What skills do you think predators need in order to catch their prey?
Why do many people think that vampire bats kill people?

Heart questions

How would you feel if you knew that other animals might eat you?
Would you like to be a snake?
Look at p18. Do you think one of the wildebeest really would have said, 'Everyone panic!'?

Independent questioning

Pupils make up questions on the text for a partner to answer. Say what kind of questions they are.

Lesson plan 2 – Guided comprehension and writing non-fiction

Lesson preparation

- copies of the **text to be used:** *Brainwaves* Blue level *Predators*
- board and cardboard sheet, or overhead projector and transparencies; pen; 4 different-coloured packets of small self-adhesive notes (optional)
- copies of **CM 1**

Modelling and guided practice

KEY WORDS

1   Before, during and after each reading of *Predators*, pupils identify words in the text especially relevant to the topic of **predators**. Record these on the board, a chart or OHP transparency as you go.

Key Words could include:

camouflage p7 (n)	deadly p5 (adj)
devour p25 (v)	insectivores p24 (n)
migration p14 (n)	prey p9 (n/v)
solitary p26 (adj)	venom p10 (n)
vicious p24 (adj)	

2   Pupils record the key words on **CM 1** and keep adding to the list as they read.

3   Discuss their **meanings and parts of speech** as you go. Write (n) for nouns, (v) for verbs, (adj) for adjectives, (adv) for adverbs next to them. Or use self-adhesive notes, a different colour for each part of speech. Stick these on the words, in the context of a sentence, on the board, chart or transparency.

Point out that 'camouflage' and 'prey' can be nouns or verbs depending on how they are used, e.g. the prey (n)/to prey (v).

4   Pupils connect each **key word** in Item 1b on **CM 1** with its meanings. Encourage pupils to work out meanings by looking at words in their context, and by using the glossary and a dictionary.

5   Ask pupils to find images and language in the text which grab their attention. Note how similar the language is to that used in TV and radio ads for food and restaurants. The teacher records examples under headings such as **cartoons/jokes/ rhyme/onomatopoeia/alliteration/play on words**.

Examples of **play on words** are the headings *Croc and Roll* (p16-17) /**Rock** *and Roll*; *All you can eat* (p24-25) - a slogan for a restaurant chain makes you think of a *food chain*; *Strike Force* (p10-11) - a film about (plane) flying introduces a chapter on snakes striking; the cartoon (p10-11) plays on *for a bite; wrap you up, desert/dessert*.

Examples of **alliteration** (same sound repeated to create an effect) are: Fact File; A Pack of Predators; Tiny Terror; The Hunter Becomes the Hunted; Praying Predators; Flying Feeders; Fast Food.

An example of **rhyme** is: Look **out** predators **about**.

Other **catchy headings** are No more please! (p29) and the **question**, Could you eat a horse? (p23)

Independent writing and drawing

Planning and drawing a warning sign

5   See **CM 1**, Item 2. Pupils design warning signs for an animal of their choice, warning of predators, e.g. warn wildebeest of the crocodiles, or make a warning sign for birds at home or school.

Predators

CM 1

Name   **Class**   **Date**

KEY WORDS

1 a Make a list of key words from *Predators*.

_____ _____ _____
_____ _____ _____
_____ _____ _____
_____ _____ _____
_____ _____ _____

b Use coloured lines to join the words to their meanings.

camouflage — alone
deadly — animals that hunt and kill other animals
devour — could kill you
insectivores — animals that eat mainly insects
predators — to hide by blending in
venom — poison
solitary — eat very hungrily

2 a On the other side of this paper, rule a line half way down, across the page.

b In the top half, draw a sign.
Write a warning on it about a predator.
e.g. *Birds, look out! My cat's about!*
Think about who you are warning and what you are warning them about.

You could make your sign an interesting **shape**.

Make your warning **catchy**. You could use **rhyme or alliteration**.
Or **write a question**, such as *'Guess what the crocs in this creek had for dinner last week?'*

c In the bottom half, draw the place you want to put your sign, e.g. near a river.
Then draw the predator, the prey and your sign.

d Do you think it will work?

_____
_____

Lesson plan 3 – Writing non-fiction

Process: preparation, organisation, writing
Text model: explanation
Feature: ideas and details

Lesson preparation

- copies of text to be used: *Predators*
- copies of **CM 2**
- 2 large sheets of cardboard for charts, or 2 OHP transparencies; pen
- Onto one, copy the text *Croc and roll* (p17); onto the other, copy **CM 2** text on shrews

Introduction

1   Tell the class they are going to learn how to write a factual explanation, which tells why things are as they are. They will first be looking at parts of the text that *explain* how some animals hunt other animals.

Modelling

2   Ask pupils to find examples in *Predators* of how animals catch and kill their prey, including qualities such as good eyesight or hearing and the ability to wait patiently in camouflage

3   Record their findings as they go, on the board/ cardboard chart/transparency under the headings: Name of predator/How it is able to kill its prey.

4   Ask pupils to look at the copy you made of the *Croc and roll* passage from p17. Ask a pupil to point to the part of the text that tells what it is all about. The correct answer is the first sentence. Underline it. Tell the class that this is called a *topic* sentence, and that most explanations begin with one.

5   Ask other pupils to come and point to the verbs, and underline them. Ask them what kind of verbs most of them are. The answer is *action verbs* in the simple *present tense, e.g. kill, pulls, spins, drown, escape*. [*Grabbing* is an action verb too, but in the continuous present tense. The only non-action verb is 'called', which is used in the passive. Passives are often used in explanations. They are very useful for naming things, and in explanations many things need to be named.]

6   Ask pupils to put a box around any words that tell about *when things happen, or in what order*, e.g. *often, Then*. This is because the main purpose of an explanation is to say how, when, where and why things happen, and in what order.

Guided stage

1   Ask pupils to look at the text on shrews. Cover it up except for the title, and ask the class to predict from this what kind of text type it is. It is obviously an explanation.

2   Uncover paragraph 1 and ask the class to find the topic sentence - *Shrews can hunt and kill animals ten times bigger than themselves*.

3   Uncover the rest of the text and ask pupils to point to words telling when or why things happen - *Firstly, Secondly, Finally; because*. They help one idea flow into the next so that it all makes sense. They are called *connectives or adverbs of time and reason*. Circle them. At this point, you may wish pupils to begin **CM 2**.

4   Ask pupils to find action verbs in the text - *hunt, kill, hear, find, grab, eat, fill*. List these on the board.

5   Ask pupils to find all the sentences with the words *is, have, can, need, will (contracted to 'll)* in them. Write them on the board under verbs or verb chains. Discuss how they all describe the animal. Point out that explanations often have bits of description embedded in them.

6   Ask the pupils how the explanation ends. What do we call an ending like this? *A conclusion*.

Independent stage

Pupils now look at their own copies of **CM 2** and follow the instructions.

Sharing

Finally pupils should proofread each other's work, checking that the sentences are in the correct sequence.

An Explanation

1
a Underline the title.

b Underline the topic sentence.

c Circle connectives that tell when or why.

d Underline the action verbs.

e Put brackets [ ] around the conclusion.

How shrews prey on animals bigger than themselves

Shrews are tiny animals, like mice with big ears. But beware! They can eat animals ten times bigger than themselves. Shrews eat insects most of the time. But they'll kill and devour snakes, spiders, frogs, mice and even other shrews. How is this possible?

Firstly, shrews can hear and smell very well, so they find their prey easily. Secondly, shrews have a long snout with lots of very sharp teeth. They grab and eat their prey very quickly with these.

Finally, shrews need to kill a lot, because they have very big bellies to fill up. They are always hungry. No wonder they are vicious and can eat animals bigger than themselves.

2 Cut out the sentences below. Paste them in order under the title.

How a lion gets its lunch

The lion has to work hard to get its lunch.

The prey can't breathe.

Suddenly it charges.

It leaps onto the back of its prey and pulls it down.

It crouches in the bushes and waits patiently.

So it dies quickly.

Lesson plan 4 – Integrated drama and visual arts

Theme: Predators, prey, camouflage, survival skills.

Lesson preparation

- copies of text to be used: *Predators*
- 2 large sheets of cardboard for charts, or 2 OHP transparencies; pen; two blindfolds; coloured pencils/crayons/pens; scissors; glue
- copies of **CM 3**

Introduction

1   Pupils read pages 4-5 of *Predators* silently. Ask for definitions of the word 'predator'. Record a class definition across the top of one piece of cardboard. Rule two columns underneath this with headings Predators/Preys on.

2   Pupils read to the end of Chapter 1, (p11) looking for the names of predators and what they eat. Record these on the chart as they go.

3   Discuss the relationship between predator and prey, and the skills both need to survive. Ask what skills predators need to catch prey. What skills do prey need to escape predators? Record this on the second piece of cardboard under Skills a predator needs to kill/Skills a prey needs to survive.

4   Ask pupils to look at images in the text which show animals in their surroundings. Discuss how camouflage helps them hide. Ask if pupils have ever seen an animal change or trick predators into thinking it is something else. Discuss the colours, patterns, behaviour and so on that make this possible, e.g. the colour and texture of a lizard resembling the stones and earth around it.

Modelling concept of camouflage

Play the game *Hunter and Hunted*

Choose two pupils to be a predator and its prey. Blindfold them. Other pupils stand in a circle around them in total silence. The aim is for the predator to catch the prey. Once this has happened, the game starts again, with other pupils as prey and predator. Discuss the senses and skills needed to catch or get away from the other. What were some of the things the prey and the predator had to be good at in order to be successful?

Guided and independent stages

Each pupil thinks of an animal and how it can camouflage itself. They draw the pattern or colour of their animal's skin covering, or whatever it is that helps with the camouflage, all over the two boxes on **CM 3**, such as black and white stripes for a zebra, tan and white markings for a giraffe.

The pupils then draw the *outline* of their animal, on top of the pattern in the top box. They cut it out. They place their cut-out animal on top of the pattern in the bottom box, and try to 'hide' it on the background. They can produce a 3D effect by sticking some blue tack or paper padding to the back of their animal. Pupils then try to hide their animals on the camouflage pages of other pupils to see what a difference the background makes in camouflaging animals.
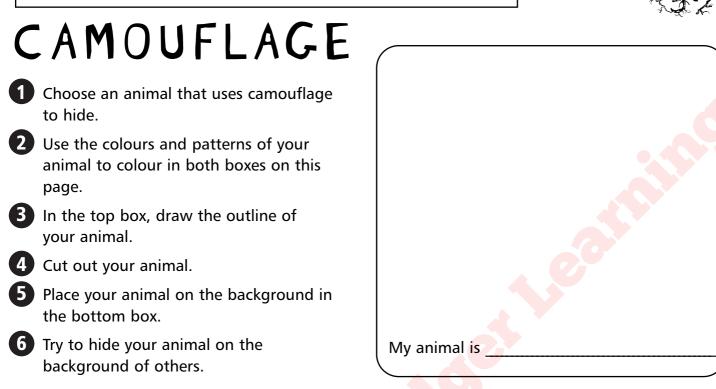
Additional integrated activity

Drama

Impersonating animals

Write the names of all kinds of animals, birds, fish and so on, on small pieces of paper. There should be two copies of each animal's name. Put these in a hat. Pupils take a piece of paper each from the hat. They silently read the name of the animal, choose a space in the room, and each pupil simultaneously performs a movement typical of that animal.

The aim is for pupils to locate the other pupil in the room who is the same animal. When pupils recognise their 'partner' animal, they sit down. If movement is not enough, then sounds can be used. If all else fails, pupils can draw or describe their animal in words.

Name   **Class**   **Date**

CAMOUFLAGE

1 Choose an animal that uses camouflage to hide.

2 Use the colours and patterns of your animal to colour in both boxes on this page.

3 In the top box, draw the outline of your animal.

4 Cut out your animal.

5 Place your animal on the background in the bottom box.

6 Try to hide your animal on the background of others.

My animal is _____

Do you think your animal is well camouflaged? _____ Why or why not?

_____

_____