Sample material from the *Biodiversity* unit.

This Teacher’s Resource sampler includes:

- Welcome to Nelson Literacy ........................................ 4
- Instructional Framework .............................................. 6
- Introducing the Unit .................................................. 8
  - Planning the Unit .................................................. 8
  - Launching the Unit .............................................. 12
  - Let’s Talk: Animal Groups Quiz ........................... 14
- Lesson Plan: Scientific Classification ...................... 17
  - Understanding Reading Strategies
- Lesson Plan: Invertebrates and Vertebrates .......... 23
  - Applying Strategies
Welcome to Nelson Literacy

Features of this Teacher’s Resource

- **Planning** support to assist you in developing a comprehensive literacy program for your students
- **Instructional approaches** that facilitate a gradual release of responsibility, from teacher modelling to guided and independent experiences in all the language arts, based on the BC English Language Arts IRP 2006
- **Assessment tools** that help guide instruction
- **Differentiated instruction** to meet individual needs, based on data gathered from observation and formative assessment
- **Curriculum-area units** directly aligned to BC’s Grade 6 Social Studies, Science, and Health and Career Education to help improve students’ literacy skills in content areas
- Opportunities for in-depth study and enjoyment of a **variety of literary forms, text types, and structures** in fiction and nonfiction
- **Word study** and vocabulary development strategies
- An **Instructional Framework** chart (Teacher’s Resource pages 6–7) outlining the instructional focuses in each unit

Teaching a Unit: A Quick Tour

**STEP 1** Begin with the planning tools in “Introducing the Unit” (Teacher’s Resource pages 8–11)

- Refer to the Unit-at-a-Glance chart on pages 8–9, which outlines each lesson focus and instructional approach, the BC Prescribed Learning Outcomes, and available assessment tools.
- Read the suggestions in the sections Planning the Unit, Ongoing Activities, What You Need, and Family and Community Connections.

**STEP 2** Use “Launching the Unit” and “Let’s Talk” (Teacher’s Resource pages 12–15) to get started with students

- Start with the Accessing Prior Knowledge activity on Teacher’s Resource page 12.
- Draw students’ attention to the learning goals on the unit opener page (*Student Book 6a*, page 41) to preview the focus of instruction and assessment.
- Then use the Let’s Talk spread (*Student Book 6a*, pages 41–42) to engage students and access prior knowledge.
- Use the Read-Aloud selection “What Is Biodiversity?” (found in the Transparencies for Teacher Modelling).
STEP 3 Use Transparencies for Teacher Modelling

- Use the Read-Aloud with the accompanying discussion prompts to introduce and model the strategy for students.
- Use the transparency with the accompanying think-alouds for guided practice and teacher modelling of strategies.

STEP 4 Use the Unit Lesson Plans

- Note that every lesson begins with an overview page that identifies BC Prescribed Learning Outcomes and previews the Assessment for Learning in the lesson, which outlines ongoing observation, ideas for differentiating instruction, and assessment tools.
- Each lesson is organized in a Before/During/After format, with pages from the Student Book conveniently reproduced.
- There are two kinds of lesson plans:
  - Understanding Strategies lessons (e.g., Teacher’s Resource pages 17–22) provide explicit instruction in using a strategy in one of the English Language Arts Organizers. This type of lesson usually begins with a teacher-modelled experience.
  - This is followed by an Applying Strategies lesson (e.g., Teacher’s Resource pages 23–27), which provides guided and independent practice with the strategy.
- Each lesson provides multiple opportunities for students to speak, listen, read and view, write and represent, and develop media literacy. Special features include Differentiated Instruction, Vocabulary, Word Study, and Writing Mini-lessons.
- Each lesson engages students in meaningful group, partner, and independent work, often supported by blackline masters (found at the back of this Teacher’s Resource).
- Assessment materials on the closing page of each lesson include suggestions for checking progress and next steps, accompanied by a rubric strip for formative assessment.

STEP 5 Conclude the Unit with the “Putting It All Together” lesson (Teacher’s Resource pages 58–64)

- This lesson helps students apply and reflect on all the strategies developed in the unit, and assists in developing a profile of each student to guide instruction.
- After completing the selection lesson plan with students, refer to the assessment section (Teacher’s Resource pages 63–64), which provides a reading response and integrated English Language Arts performance task for summative assessment. The task is supported by rubrics available on blackline masters. Also featured are ideas for reflecting back on the learning in the unit, student self-assessment, and goal setting.
### Instructional Framework: Grade 6

<table>
<thead>
<tr>
<th>ORAL LANGUAGE (Speaking and Listening)</th>
<th>READING/VIEWING</th>
<th>Text Patterns and Features</th>
<th>Word Study</th>
<th>Media</th>
<th>WRITING/REPRESENTING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active Listening/Interactive Strategies</strong></td>
<td><strong>Activating Prior Knowledge/Making Connections</strong></td>
<td><strong>Text Pattern</strong></td>
<td><strong>Language Conventions</strong></td>
<td><strong>Purpose and Audience</strong></td>
<td><strong>Trait</strong></td>
</tr>
<tr>
<td>Use common courtesies to acknowledge different points of view</td>
<td>Make connections to self, text, and world</td>
<td>Narrative</td>
<td>Quotation marks; suffixes, word patterns; adverbs, adverb phrases; colon</td>
<td>Identify purpose and audience for a variety of media texts</td>
<td>Ideas: Clarify ideas</td>
</tr>
<tr>
<td><strong>Comprehension Strategies</strong></td>
<td><strong>Visualizing</strong></td>
<td>Description</td>
<td>Vivid language</td>
<td><strong>Media Forms</strong></td>
<td>Identify the characteristics of magazine covers and tables of contents</td>
</tr>
<tr>
<td>Incorporate a number of ideas heard to visualize a new picture</td>
<td>Make pictures in your mind to clarify complex concepts</td>
<td><strong>Text Form</strong></td>
<td>Compound words; parentheses; synonyms; dictionary skills</td>
<td><strong>Conventions and Techniques</strong></td>
<td>Explain how conventions are used to convey meaning in art</td>
</tr>
<tr>
<td><strong>Appropriate Language</strong></td>
<td><strong>Predicting</strong></td>
<td>Visual information, captions</td>
<td>Strong verbs</td>
<td><strong>Making Inferences/Interpreting Messages</strong></td>
<td>Use overt/ implied messages in announcements</td>
</tr>
<tr>
<td>Use appropriate words and inclusive and non-discriminatory language</td>
<td>Make predictions using text features</td>
<td><strong>Text Features</strong></td>
<td>Specific nouns; simple, compound, and complex sentences</td>
<td><strong>Audience Responses</strong></td>
<td>Explain different audiences’ responses to media texts</td>
</tr>
<tr>
<td><strong>Demonstrating Understanding</strong></td>
<td><strong>Finding Important Ideas</strong></td>
<td>Visual information, explanation, informational report, autobiography</td>
<td>Homophones; personal object pronouns; dictionary skills</td>
<td><strong>Media Forms</strong></td>
<td>Describe how some media texts suit purpose and audience</td>
</tr>
<tr>
<td>Summarize important information in conversations</td>
<td>Find important ideas and identify supporting details</td>
<td><strong>Text Pattern</strong></td>
<td>Sentence word order; alliteration; similes</td>
<td><strong>Language Conventions</strong></td>
<td>Word meanings; dashes; word patterns; conjunctions; prefixes, suffixes</td>
</tr>
<tr>
<td><strong>Making Inferences</strong></td>
<td><strong>Questioning</strong></td>
<td>Cause/Effect</td>
<td>Synonyms; apostrophes; capitalization</td>
<td><strong>Form and Style</strong></td>
<td>Sentence word order; alliteration; similes</td>
</tr>
<tr>
<td>Infer point of view while you listen</td>
<td>Ask questions to check understanding and evaluate a text’s message</td>
<td><strong>Text Form</strong></td>
<td>Photo collage, persuasive text, guide, cartoon, public service ad, informational explanation, informational report</td>
<td>Vocabulary:</td>
<td>Identify the characteristics of magazine covers and tables of contents</td>
</tr>
<tr>
<td><strong>Active Listening/Interactive Strategies</strong></td>
<td><strong>Form and Style</strong></td>
<td><strong>Text Features</strong></td>
<td><strong>Language Conventions</strong></td>
<td><strong>Purpose and Audience</strong></td>
<td>Identify purpose and audience for a variety of media texts</td>
</tr>
<tr>
<td>Paraphrase and summarize to clarify understanding</td>
<td><strong>Sentence word order</strong></td>
<td><strong>Media Forms</strong></td>
<td><strong>Conventions and Techniques</strong></td>
<td>Explain how conventions are used to convey meaning in art</td>
<td><strong>Making Inferences/Interpreting Messages</strong></td>
</tr>
<tr>
<td><strong>Audience Responses</strong></td>
<td><strong>Audience</strong></td>
<td><strong>Trait</strong></td>
<td><strong>Organization</strong></td>
<td><strong>Trait</strong></td>
<td><strong>Voice</strong></td>
</tr>
<tr>
<td>Explain different audiences’ responses to media texts</td>
<td><strong>Organization</strong></td>
<td><strong>Ideas</strong></td>
<td>Plan for concise writing</td>
<td><strong>Write an organized paragraph</strong></td>
<td><strong>Define voice</strong></td>
</tr>
<tr>
<td><strong>Media Forms</strong></td>
<td><strong>Trait</strong></td>
<td><strong>Media</strong></td>
<td><strong>Conventions</strong></td>
<td><strong>Use strong transitions</strong></td>
<td><strong>Process</strong></td>
</tr>
<tr>
<td>Describe how some media texts suit purpose and audience</td>
<td><strong>Purpose</strong></td>
<td>Identify the characteristics of magazine covers and tables of contents</td>
<td>Use overt/ implied messages in announcements</td>
<td><strong>Plan for writing</strong></td>
<td><strong>Draft and Revise</strong></td>
</tr>
<tr>
<td><strong>WRITING/REPRESENTING</strong></td>
<td><strong>Media</strong></td>
<td><strong>Conventions</strong></td>
<td><strong>Purpose</strong></td>
<td>Explain how conventions are used to convey meaning in art</td>
<td><strong>Process</strong></td>
</tr>
<tr>
<td>Trait: Ideas: Clarify ideas</td>
<td><strong>Purpose</strong></td>
<td>Identify the characteristics of magazine covers and tables of contents</td>
<td>Explain how conventions are used to convey meaning in art</td>
<td><strong>Making Inferences/Interpreting Messages</strong></td>
<td>Use overt/ implied messages in announcements</td>
</tr>
<tr>
<td>Process: Generate, gather, and organize ideas</td>
<td><strong>Audience</strong></td>
<td>Identify purpose and audience for a variety of media texts</td>
<td>Explain how conventions are used to convey meaning in art</td>
<td><strong>Audience Responses</strong></td>
<td>Explain different audiences’ responses to media texts</td>
</tr>
<tr>
<td><strong>Trait</strong></td>
<td><strong>Organization</strong></td>
<td><strong>Use strong transitions</strong></td>
<td><strong>Plan for writing</strong></td>
<td><strong>Draw and Revise</strong></td>
<td><strong>Plan for writing</strong></td>
</tr>
<tr>
<td><strong>Trait</strong></td>
<td><strong>Voice</strong></td>
<td><strong>Define voice</strong></td>
<td><strong>Process</strong></td>
<td><strong>Draft and Revise</strong></td>
<td><strong>Process</strong></td>
</tr>
<tr>
<td>CANADA’S LINKS TO THE WORLD</td>
<td>EXPLORING EXTREME ENVIRONMENTS</td>
<td>SCIENCE FICTION Literature</td>
<td>CANADA’S GOVERNMENT Social Studies</td>
<td>YOU IN THE WORLD Health and Career Education</td>
<td>EXPLORING SPACE Science</td>
</tr>
<tr>
<td>----------------------------</td>
<td>--------------------------------</td>
<td>-----------------------------</td>
<td>------------------------------------</td>
<td>-----------------------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Social Studies</td>
<td>Science</td>
<td>EXPLORING</td>
<td>Explorer</td>
<td>YOU IN THE WOR</td>
<td>EXPLORING</td>
</tr>
<tr>
<td>CANADA’S LINKS TO THE WORLD</td>
<td>EXPLORING EXTREME ENVIRONMENTS</td>
<td>SCIENCE FICTION Literature</td>
<td>CANADA’S GOVERNMENT Social Studies</td>
<td>YOU IN THE WORLD Health and Career Education</td>
<td>EXPLORING SPACE Science</td>
</tr>
<tr>
<td>Extending Understanding</td>
<td>Appropriate Language</td>
<td>Vocal Skills and Strategies/Non-Verbal Cues</td>
<td>Demonstrating Understanding/Clarity and Coherence</td>
<td>Active Listening/Interactive Strategies</td>
<td>Presentation Strategies/Clarity and Coherence</td>
</tr>
<tr>
<td>• Make connections in oral texts to the world around them</td>
<td>• Use language to achieve a desired effect</td>
<td>• Use appropriate body language and gestures</td>
<td>• Communicate in a clear manner to present a point of view</td>
<td>• Build on different points of view</td>
<td>• Communicate in a clear, coherent manner for a multimedia presentation</td>
</tr>
<tr>
<td>Summarizing</td>
<td>Monitoring Comprehension</td>
<td>Retelling</td>
<td>Making Inferences</td>
<td>Evaluating</td>
<td>Synthesizing</td>
</tr>
<tr>
<td>• Summarize main ideas to arrive at new understandings or conclusions</td>
<td>• Clarify meaning of words and concepts and check understanding</td>
<td>• Retell a story to deepen understanding</td>
<td>• Make judgments and draw conclusions about ideas in texts</td>
<td>• Draw conclusions about the validity of ideas and information</td>
<td>• Synthesize information from two different points of view</td>
</tr>
<tr>
<td>Text Pattern</td>
<td>Text Pattern</td>
<td>Text Pattern</td>
<td>Text Features</td>
<td>Text Pattern</td>
<td>Text Pattern</td>
</tr>
<tr>
<td>• Sequence</td>
<td>• Question/Answer</td>
<td>• Narrative</td>
<td>• Features of an activity</td>
<td>• Problem/Solution</td>
<td>• Compare/Contrast</td>
</tr>
<tr>
<td>Text Form</td>
<td>Text Form</td>
<td>Text Form</td>
<td>Text Form</td>
<td>Text Form</td>
<td>Text Form</td>
</tr>
<tr>
<td>• Illustration, informational report, informational explanation, list, profile</td>
<td>• Informational explanation/report, cartoon, profile</td>
<td>• Comic strip, short story, poem, radio play</td>
<td>• Informational explanation, informational report, procedural text, quiz</td>
<td>• Photo collage, news article, procedural text, true story, profile</td>
<td>• Quiz, informational report/explanation, letter to the editor, blog entry, news article</td>
</tr>
<tr>
<td>Language Conventions</td>
<td>Language Conventions</td>
<td>Language Conventions</td>
<td>Language Conventions</td>
<td>Language Conventions</td>
<td>Language Conventions</td>
</tr>
<tr>
<td>• Parentheses; subordinate clauses; word meanings; adjectives</td>
<td>• Simple, compound, and complex sentences</td>
<td>• Personal subject pronouns; apostrophe; semicolon, colon; verb tenses</td>
<td>• Vivid language</td>
<td>• Acronyms; apostrophe; word meanings</td>
<td>• Word patterns; suffixes, prefixes; quotation marks</td>
</tr>
<tr>
<td>Conventions and Techniques</td>
<td>Conventions and Techniques</td>
<td>Responding to and Evaluating Texts</td>
<td>Conventions and Techniques</td>
<td>Point of View</td>
<td>Media Forms</td>
</tr>
<tr>
<td>• Explain conventions of a media text</td>
<td>• Explain how conventions of a website help convey meaning</td>
<td>• Express opinions about ideas in media texts</td>
<td>• Identify point of view in various media texts</td>
<td>• Identify characteristics of some media forms</td>
<td></td>
</tr>
<tr>
<td>Trait</td>
<td>Trait</td>
<td>Trait</td>
<td>Trait</td>
<td>Trait</td>
<td>Trait</td>
</tr>
<tr>
<td>• Word Choice: Use strong words to make writing clear and interesting</td>
<td>• Word Choice: Use correct terminology to establish authority</td>
<td>• Fluency: Eliminate run-on sentences</td>
<td>• Conventions: Distinguish between revising and editing</td>
<td>• Publishing: Use charts for effective presentation</td>
<td></td>
</tr>
<tr>
<td>• Draft and Revise</td>
<td>• Draft and Revise</td>
<td>• Draft and Revise</td>
<td>• Edit and Proofread</td>
<td>• Publish/Share</td>
<td></td>
</tr>
</tbody>
</table>
Planning the Unit

UNIT OVERVIEW
In this unit, students learn about the diversity of living things, the classification system that scientists use to understand and group living things on Earth, and the characteristics of vertebrates and invertebrates. As students read the quiz, informational reports and explanations, and magazine covers and Contents, they develop

• the reading comprehension strategy of visualizing
• the writing strategy of planning for concise writing
• the ability to identify characteristics of magazine covers and Contents
• an understanding of the characteristics of descriptive text pattern
• the listening strategy of creative listening
• word study skills

OPPORTUNITIES FOR INTEGRATED INSTRUCTION: SCIENCE
The purpose of this unit is to provide opportunities for students to develop language skills in all organizers while working in the content area of Science. While the unit has strong links to the Science curriculum for Life Science: Diversity of Life, it does not deliver comprehensive coverage of the Science curriculum.

Teachers can make links to the following Life Science: Diversity of Life Prescribed Learning Outcomes:
• Distinguish between life forms as belonging to one of five kingdoms: Plantae, Animalia, Monera, Prostista, Fungi
• Analyze how different organisms adapt to their environments

Unit at a Glance

<table>
<thead>
<tr>
<th>LESSON INSTRUCTIONAL FOCUS</th>
<th>INSTRUCTIONAL APPROACHES/RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Launching the Unit</td>
<td>Read-Aloud</td>
</tr>
<tr>
<td>Let's Talk</td>
<td>“What Is Biodiversity?”</td>
</tr>
<tr>
<td></td>
<td>“Animal Groups Quiz” SB 6a, pp. 42-43; TR pp. 14-15</td>
</tr>
<tr>
<td>Understanding Reading Strategies: Visualizing</td>
<td>Teacher Modelling/Guided Practice</td>
</tr>
<tr>
<td></td>
<td>Transparency 6: Purple Frogs</td>
</tr>
<tr>
<td></td>
<td>“Scientific Classification” SB 6a, pp. 44-47; TR pp. 17-22</td>
</tr>
<tr>
<td>Applying Strategies: Visualizing</td>
<td>Guided or Independent Reading/Viewing</td>
</tr>
<tr>
<td></td>
<td>“Animals: Invertebrates and Vertebrates” SB 6a, pp. 48-50; TR pp. 23-27</td>
</tr>
<tr>
<td></td>
<td>Guided and Independent Writing/Representing</td>
</tr>
<tr>
<td>Understanding Writing Strategies: Planning for Concise Writing</td>
<td>Modelled Writing/Representing</td>
</tr>
<tr>
<td></td>
<td>Transparency 7: Planning for Concise Writing</td>
</tr>
<tr>
<td></td>
<td>“Planning for Concise Writing” SB 6a, p. 51; TR pp. 28-32</td>
</tr>
<tr>
<td></td>
<td>Shared Writing/Representing TR p. 30</td>
</tr>
<tr>
<td></td>
<td>Guided or Independent Writing/Representing TR p. 31</td>
</tr>
<tr>
<td>Applying Strategies: Reading Like a Writer</td>
<td>Guided or Independent Reading/Viewing</td>
</tr>
<tr>
<td></td>
<td>“Blond, Furry, and Deep in the Ocean” SB 6a, pp. 52-53; TR pp. 33-37</td>
</tr>
<tr>
<td></td>
<td>Independent Writing/Representing TR p. 36</td>
</tr>
<tr>
<td>Understanding Media: Identifying Characteristics of Magazine Covers and Contents</td>
<td>Teacher Modelling/Guided Practice</td>
</tr>
<tr>
<td></td>
<td>Transparency 8: “Staying In Touch with Nature”; “Staying In Touch with Nature” SB 6a, p. 54; TR pp. 38-42</td>
</tr>
<tr>
<td></td>
<td>Independent Reading/Viewing “Staying In Touch with Nature” SB 6a, p. 55; TR p. 42</td>
</tr>
<tr>
<td>Understanding Text Patterns: Identifying Characteristics of Descriptive Text Pattern</td>
<td>Teacher Modelling/Guided Practice</td>
</tr>
<tr>
<td></td>
<td>Transparency 9: Sponges “Marvellous Mouths” SB 6a, pp. 56-58; TR pp. 43-47</td>
</tr>
<tr>
<td>Applying Strategies: Identifying Characteristics of Descriptive Text Pattern</td>
<td>Guided or Independent Reading/Viewing</td>
</tr>
<tr>
<td></td>
<td>“Coyotes: The Super Adapters” SB 6a, pp. 59-61; TR pp. 48-53</td>
</tr>
<tr>
<td></td>
<td>Guided and Independent Reading Kit</td>
</tr>
<tr>
<td>Understanding Listening Strategies: Creative Listening</td>
<td>Teacher Modelling/Guided Practice</td>
</tr>
<tr>
<td></td>
<td>Transparency 10: Creative Listening “Creative Listening” SB 6a, p. 62; TR pp. 54-57</td>
</tr>
<tr>
<td>Putting It All Together</td>
<td>Summative Assessment</td>
</tr>
<tr>
<td></td>
<td>“The Polar Bear” SB 6a, pp. 63-66; TR pp. 58-64</td>
</tr>
<tr>
<td>PRESCRIBED LEARNING OUTCOMES</td>
<td>ASSESSMENT AND ASSESSMENT TOOLS</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>OL  Use speaking and listening to question/speculate</td>
<td>Key Assessment Questions</td>
</tr>
<tr>
<td>R/V  Demonstrate comprehension of visual texts with specialized features</td>
<td>BLM 2: Oral Language Tracking Sheet</td>
</tr>
<tr>
<td>R/V  Use strategies to access prior knowledge to make connections</td>
<td>BLM 3: Small-Group Observation Tracking Sheet</td>
</tr>
<tr>
<td>R/V  Use strategies to visualize</td>
<td>BLM 2, BLM 3</td>
</tr>
<tr>
<td>W/R  Use new and specific words in informational writing</td>
<td>BLM 5: Strategy Rubric Strip—Visualizing</td>
</tr>
<tr>
<td>W/R  Use strategies to consult reference materials</td>
<td>BLM 4: Self-Assessment Checklist and Personal Goal Setting</td>
</tr>
<tr>
<td>OL  Use speaking and listening to improve/deepen comprehension</td>
<td>Demonstration Task</td>
</tr>
<tr>
<td>R/V  Use strategies to visualize</td>
<td>Key Assessment Question</td>
</tr>
<tr>
<td>W/R  Use new and specific words in informational writing</td>
<td>BLM 2, BLM 3, BLM 5</td>
</tr>
<tr>
<td>W/R  Use strategies to consult reference materials</td>
<td>BLM 4: Self-Assessment Checklist and Personal Goal Setting</td>
</tr>
<tr>
<td>OL  Present in a clear manner when speaking</td>
<td>Demonstration Task</td>
</tr>
<tr>
<td>W/R  Use new and specific words in informational writing</td>
<td>Key Assessment Question</td>
</tr>
<tr>
<td>W/R  Use strategies to generate, select, develop, and organize ideas</td>
<td>BLM 2, BLM 3</td>
</tr>
<tr>
<td>W/R  Use strategies to revise to enhance writing</td>
<td>BLM 8: Strategy Rubric Strip—Planning for Concise Writing</td>
</tr>
<tr>
<td>R/V  Read and view to improve and extend thinking</td>
<td>BLM 9: Writing Process Assessment Checklist</td>
</tr>
<tr>
<td>R/V  Explain how nonfiction elements develop meaning</td>
<td>BLM 10: Demonstration Task—Identifying Characteristics of Magazine Covers and Contents</td>
</tr>
<tr>
<td>R/V  Use new and specific words in informational writing</td>
<td>BLM 11: Strategy Rubric Strip—Identifying Characteristics of Magazine Covers and Contents</td>
</tr>
<tr>
<td>R/V  Use strategies to consult reference materials</td>
<td>BLM 2, BLM 3, BLM 4, BLM 8</td>
</tr>
<tr>
<td>W/R  Use strategies to revise to enhance writing</td>
<td>BLM 2, BLM 3, BLM 4</td>
</tr>
<tr>
<td>OL  Use speaking and listening to improve/deepen comprehension</td>
<td>Demonstration Task</td>
</tr>
<tr>
<td>R/V  Demonstrate comprehension of visual texts with specialized features</td>
<td>Key Assessment Questions</td>
</tr>
<tr>
<td>R/V  Respond by identifying meaningful selections/passages/images</td>
<td>BLM 2, BLM 3, BLM 4</td>
</tr>
<tr>
<td>R/V  Explain how structures/features of text work to develop meaning</td>
<td>BLM 10: Demonstration Task—Identifying Characteristics of Magazine Covers and Contents</td>
</tr>
<tr>
<td>W/R  Create meaningful visual representations for a variety of purposes/audiences</td>
<td>BLM 11: Strategy Rubric Strip—Identifying Characteristics of Magazine Covers and Contents</td>
</tr>
<tr>
<td>OL  Use speaking and listening to improve/deepen comprehension</td>
<td>Demonstration Task</td>
</tr>
<tr>
<td>R/V  Read fluently/demonstrate comprehension of information texts</td>
<td>Key Assessment Questions</td>
</tr>
<tr>
<td>R/V  Use strategies to use text features</td>
<td>BLM 2, BLM 3</td>
</tr>
<tr>
<td>R/V  Explain how literary devices work to develop meaning</td>
<td>BLM 4, BLM 13</td>
</tr>
<tr>
<td>W/R  Create visual representations that organize key ideas</td>
<td>BLM 13: Strategy Rubric Strip—Identifying Characteristics of Descriptive Text Pattern</td>
</tr>
<tr>
<td>OL  Use speaking and listening to improve/deepen comprehension</td>
<td>Demonstration Task</td>
</tr>
<tr>
<td>R/V  Read and demonstrate comprehension of appropriate websites</td>
<td>Key Assessment Question</td>
</tr>
<tr>
<td>R/V  Explain how structures and features of text work to develop meaning</td>
<td>BLM 2, BLM 3, BLM 4, BLM 13</td>
</tr>
<tr>
<td>W/R  Write a variety of imaginative writing for a range of purposes/audiences</td>
<td>BLM 2, BLM 3</td>
</tr>
<tr>
<td>OL  Use strategies to access prior knowledge when interacting with others</td>
<td>Demonstration Task</td>
</tr>
<tr>
<td>W/R  Create visual representations that make connections to feelings</td>
<td>Key Assessment Question</td>
</tr>
<tr>
<td>W/R  Use strategies to consult reference materials</td>
<td>BLM 2, BLM 3, BLM 4</td>
</tr>
<tr>
<td>OL  Listen to generate questions/visualize/make inferences/draw conclusions</td>
<td>BLM 14: Demonstration Task—Creative Listening</td>
</tr>
<tr>
<td>OL  Use strategies to access prior knowledge when interacting with others</td>
<td>BLM 15: Strategy Rubric Strip—Creative Listening</td>
</tr>
<tr>
<td>W/R  Create visual representations that make connections to feelings</td>
<td>BLM 4</td>
</tr>
<tr>
<td>W/R  Use strategies to consult reference materials</td>
<td>BLM 16: Reading Response Form</td>
</tr>
<tr>
<td>R/V  Use strategies to visualize</td>
<td>BLM 17: Reading Record Form</td>
</tr>
<tr>
<td>R/V  Explain how structures/features of text work to develop meaning</td>
<td>BLM 18: Performance Task—Writing an Informational Report</td>
</tr>
<tr>
<td>W/R  Use new, specific, and powerful words in informational writing</td>
<td>BLM 19: Reading Response and Performance Task Rubric</td>
</tr>
<tr>
<td>W/R  Use strategies to access multiple sources of information</td>
<td></td>
</tr>
<tr>
<td>W/R  Use strategies to revise to enhance writing</td>
<td></td>
</tr>
</tbody>
</table>
OPPORTUNITIES FOR WRITING/REPRESENTING
Throughout this unit, students have numerous opportunities to practice planning and drafting using a variety of forms. Their work in progress should be stored in their writing folder. Consider asking students to select one or two pieces to revise, edit, and publish. You may wish to use BLM 9: Writing Process Assessment Checklist to assess students’ work at various stages of writing.

A mini-lesson is provided in each unit to help you develop students’ writing skills. This unit includes the mini-lesson Drafting: Imagining Key Questions (page 32). Consult the Nelson Literacy Overview for a list of mini-lessons that can be used to support students as they work through the writing process.

ASSESSMENT AND ASSESSMENT DATA
The instructional focuses of the unit are the focuses for assessment: visualizing, planning for concise writing, identifying the characteristics of magazine covers and Contents, identifying characteristics of descriptive text pattern, and creative listening.

Throughout the unit, there are multiple opportunities to observe as students learn, practise, and demonstrate target strategies. Formative assessment data (generated by discussion opportunities, Key Assessment Questions, and Demonstration Tasks) can be recorded on specific assessment tools. By analyzing the data, you can guide students through subsequent lessons with the correct level of support. The data can help you plan for instruction, differentiate instruction, and begin to make evaluative decisions about students’ progress for reporting purposes.

The Performance Task provides valuable summative assessment data that can be used for reporting and for communicating with parents, caregivers, and administrators.

Students are invited to assess their own learning throughout the unit. They can use their self-assessment data to set personal goals for future learning.

ASSESSMENT TOOLS
- Oral Language Tracking Sheet (BLM 2): You may use this tracking sheet when observing students during the unit launch and periodically throughout the unit. Taking multiple opportunities to focus on a small number of students at a time allows you to observe every student over the course of the unit.
- Small-Group Observation Tracking Sheet (BLM 3): This tool can be used to monitor and make notes on students’ participation in various small-group activities in all the organizers: oral language, reading and viewing, and writing and representing.
- Strategy Rubric Strips (BLMs 5, 8, 11, 13, 15): These help facilitate recording and updating student achievement data over the course of the unit. Each rubric strip focuses on one strategy, and has multiple checkboxes so you can reuse this tool every time the student is required to demonstrate the target strategy. Use the rubric strips to determine the correct level of support for students in subsequent lessons and plot students’ progress over the course of the unit.
- Reading Response and Performance Task Rubric (BLM 19): Intended for use at the end of the unit, this rubric is for recording assessments of student achievement in oral language, reading, and writing skills. The data can be used as a summative measure of the students’ ability to demonstrate the strategies and skills taught in the unit as a whole.

The rubric facilitates reporting, and links to the Performance Standards.

- Self-Assessment Checklist and Personal Goal Setting (BLM 4): Throughout the unit, students are invited to assess their own ability to use the strategies taught in the unit. They can use their self-assessment data to make adaptations to their learning and to set personal goals for future learning.
- Metacognition: The ability to think about and reflect on one’s own thinking and learning processes is a key skill for successful learners. Metacognition is a crucial step in the self-assessment process. Every unit in Nelson Literacy 6 engages students in metacognitive activities by means of Reflect On questions in the Student Book, recurring self-assessment opportunities within each lesson, and the Criteria for Success self-assessment checklist included in the Performance Task (see BLM 18: Performance Task—Writing an Informational Report).

Ongoing Activities
The following activities can be undertaken at any time and revisited throughout the unit.

VOCABULARY DEVELOPMENT: BUILDING A WORD WALL
1. Create two word lists at the beginning of the unit to help students build vocabulary. Use one list to capture key content words related to the study of biodiversity. Use the second to highlight words and phrases that help readers visualize. Write the words from each list on cards and post them on the wall.
2. Add words throughout the unit and invite students to suggest words and phrases for the wall. Your class’s word lists might look something like the partial list on the next page:
ANIMAL KINGDOM: DEVELOPING A BULLETIN BOARD

1. Create a visual organizer on a large bulletin board showing the following categories of the animal kingdom:
   - Animals
   - Vertebrates and Invertebrates
   - Fish, Amphibians, Reptiles, Birds, Mammals

2. As you read and discuss the unit selections, encourage students to write relevant facts and vocabulary related to the different categories on cards. Invite them to post these cards around the organizer.

3. Ask students to bring in news articles and clippings related to the animal kingdom to post on the bulletin board.

4. Over the course of the unit, give students opportunities to add to and revisit the bulletin board.

Family and Community Connections

Students benefit from the active engagement of family members and community partners in their learning. Family members can talk with students and engage in activities that enhance the relevance of the unit content. Their interest motivates student achievement and facilitates communication with the school about performance.

Community members can help expand students’ knowledge and understanding as they learn about the diversity of species and ways of organizing the study of living things. As one tool in establishing a communication link with family members and the community beyond the school, you may reproduce or adapt the letter to parents/guardians in BLM 1: Family and Community Connections.
Launching the Unit

ACCESSING PRIOR KNOWLEDGE

1. Discuss the concept of classification with students. Ask:
   - How are students organized into different groups or classes in school? (by grade level)
   - What determines which class a person is in? (age; the number of years of school completed)
   - What does it mean to “classify things”? (to put things into different groups)
   - What do members of a group in a classification system share? Give an example. (common characteristics, for example, all Dalmations have short white hair with black spots)

2. Divide students into small groups. Say:
   - Imagine that you are biologists who study life on Earth. You have been given the challenge of classifying all living organisms on Earth.

3. Ask:
   - How will you classify all of the living organisms on Earth into groups or categories? (decide on how to divide the organisms into groups based on similarities, for example, which organisms live on land, which ones live in water)

4. Let groups share their categories for classifying living organisms and explain the characteristics of each category.

5. Direct students’ attention to the unit title. Ask:
   - What base word can you find in the word “biodiversity”? (diverse)
   - What do you think “diverse” means? (different)
   - What do you think the prefix “bio” means? (life or living things)

In this unit, you will
- visualize while you read
- write concisely
- listen creatively
- identify characteristics of magazine covers and contents
- identify characteristics of descriptive text pattern
- learn about biodiversity

Prescribed Learning Outcomes

ENGLISH LANGUAGE ARTS

<table>
<thead>
<tr>
<th>OL: Oral Language</th>
<th>R/V: Reading/Viewing</th>
<th>W/R: Writing/Representing</th>
</tr>
</thead>
<tbody>
<tr>
<td>OL A9: Use speaking and listening to question/speculate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R/V B4: Demonstrate comprehension of visual texts with specialized features</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
• What do you think the title of this unit means? (all the different living organisms on Earth)

If necessary, help students answer the above questions.

Tell students that in this unit they will be learning about how scientists have devised a way to classify all the living organisms on Earth into distinct groups based on similar characteristics.

INTRODUCING LEARNING GOALS

Have students turn to Student Book page 41 and give them a brief time to view the photograph and read the learning goals. Read the learning goals aloud. Ask students to identify words they know and talk briefly about each goal. Give students a few minutes to discuss with a partner which goal they think will help them the most in developing their language skills.

LINKING INSTRUCTION TO ASSESSMENT

Throughout the unit, the instructional goals are linked to assessment in the following ways:

• Oral Language—You can use BLM 2: Oral Language Tracking Sheet during this lesson and again whenever students are given the opportunity to discuss content, skills, and strategies related to this unit. Taking multiple opportunities for assessment allows you to focus on a manageable number of students at a time.

• Self-Assessment and Personal Goals—As you review the instructional goals with students, you may wish to introduce BLM 4: Self-Assessment Checklist and Personal Goal Setting. Explain to students that they will have the opportunity to assess their own progress using BLM 4 as they learn new strategies. At the end of the unit, students reflect on the strategy that helped them the most and set a personal goal for future learning.

• Performance Task—Explain to students that they will demonstrate strategies they are learning in this unit in a final task. In this task, outlined on BLM 18: Performance Task—Writing an Informational Report, each student will write an informational report about an animal of their choice. Students will present their reports to the class.
Let’s Talk: Animal Groups Quiz

INTRODUCING UNIT CONCEPTS

1. Ask students to turn to Student Book pages 42 and 43. Give them a few minutes to view the pages. Ask:
   • What group do all of the living organisms shown on these pages belong to? (animals)
   • What subgroups within the animal group can you identify? (fish; birds; reptiles; insects; amphibians; mammals)

2. Give students a few minutes to jot down their answers to the animal groups quiz. Tell them they should be prepared to identify what characteristics the two animals from each subgroup have in common.

3. Organize students into small groups. Encourage them to share their thinking with their group members about why the animal they chose belongs to the same group as the featured animal.

4. Once students have had an opportunity to share their answers in small groups, ask four different groups to each share one answer with the class. Ask other groups for a show of hands if they chose the same answer. Let students share their thinking as to why the animals belong to the same subgroup. (fish: Atlantic herring, catfish; birds: flamingo, hummingbird; reptiles: chameleon, turtle; mammals: lion, beluga whale)

Differentiated Instruction: ESL/ELL

Most English language learners develop some oral fluency within the first few years of school. However, they need more time, explicit instruction, and support as they work with academic language. Units such as Biodiversity are conceptually and linguistically demanding and laden with low-frequency vocabulary. Students can become overwhelmed as they focus on new scientific concepts, as well as vocabulary and English-language strategies. They benefit when teachers break down tasks.

Walk students through the unit and individual passages prior to the lesson. This enables them to see the big picture and become familiar with key concepts and vocabulary. Encourage the use of bilingual dictionaries and the addition of a “first language” column on their vocabulary chart.

Provide unit-based graphic organizers as well as key visuals prior to lessons to keep students focused on main ideas. Let them follow the text during the Read-Aloud and listening activities. Give students multiple opportunities to revisit unit text. The more they read text over and participate in guided reading, the more they learn about the concepts, strategies, and language.
Animals belong to different groups. The members of each group have certain characteristics in common. Take the quiz below to see if you can find the animals that belong to the same group.

3 Which of these animals belongs to the same group as the chameleon?

- chameleon
- parrot
- turtle
- giant armadillo
- cane toad

4 Which of these animals belongs to the same group as the lion?

- beluga whale
- crocodile
- peregrine falcon
- piranha
- lion

TALKING ABOUT A MEDIA TEXT

Guide students in describing and talking about the purpose and the audience for “Animal Groups Quiz.” Ask:

- These two pages are set up in an interesting way. Tell me what you notice about how the pages are set up. (There are photographs of different animals set up as a multiple choice quiz)
- Why do you thing the pages are set up this way? (To introduce the unit in a fun way; to get us to think about how different animals are alike in certain ways)
- Why do you think this is a good way to introduce students to a unit on biodiversity? (The quiz is fun like a game or puzzle; gets us thinking about the different types of animals on Earth and how they are grouped in different ways)
- What other photographs of animals would you have included if you were creating one more question for the “Animal Groups Quiz”?

Read-Aloud

Use the Read-Aloud “What Is Biodiversity?” and the accompanying questions in Transparencies for Teacher Modelling to introduce the concept of biodiversity. The Read-Aloud also models the strategy of visualizing.

Introducing Authors and Illustrators

The About the Authors/Illustrators feature boxes that accompany some of the lessons in this Teacher's Resource provide opportunities for you and your students to get to know the people behind the Student Book selections. In these boxes, you can read about the personal backgrounds and professional practices of authors and illustrators and gain insight into the creation of the stories and pictures in the Student Book.

In these boxes, authors and illustrators describe aspects of their lives in their own words, creating a mix of standard biographical information and interesting personal detail.

Learning about the varied career paths of authors and illustrators will expose students to a variety of career possibilities.
Prescribed Learning Outcomes

ENGLISH LANGUAGE ARTS

<table>
<thead>
<tr>
<th>OL</th>
<th>Oral Language</th>
<th>R/V</th>
<th>Reading/Viewing</th>
<th>W/R</th>
<th>Writing/Representing</th>
</tr>
</thead>
<tbody>
<tr>
<td>OL</td>
<td>A1: Use speaking and listening to improve/deepen comprehension</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R/V</td>
<td>B5: Use strategies before reading/viewing to access prior knowledge to make connections</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R/V</td>
<td>B6: Use strategies during reading/viewing to visualize</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W/R</td>
<td>C2: Use new and specific words in informational writing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W/R</td>
<td>C6: Use strategies during writing/representing to consult reference materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SCIENCE CONNECTION

Life Science: Diversity of Life: Distinguish between life forms as belonging to one of five kingdoms: Plantae, Animalia, Monera, Protista, Fungi.

About This Selection

This informational explanation describes how the scientific classification system works, explains the difference between common and scientific names, and briefly describes five kingdoms in the scientific classification system.

Challenging vocabulary is defined in the context of this nonfiction article.

ASSESSMENT FOR LEARNING

**Ongoing Observation**
- Students who understand will
  - use comparisons to familiar things to help them understand concepts
  - draw a mental visual organizer based on information in the text
  - identify important information to help them draw accurate mental pictures
  - use numbers to visualize quantity
  - explain how visualizing helps the reader understand what is read

**Differentiated Instruction**
- If students do not understand, use Pause for Reflection (see Differentiated Instruction: Extra Support, p. 19)

**Assessment**
- Key Assessment Questions
  - What comparisons to familiar things in the text helped you to understand concepts?
  - What information helped you draw a visual organizer in your mind?
  - What important information helped you draw accurate pictures in your mind?
  - What numbers in the text helped you to visualize quantity?
  - How does visualizing help the reader understand what is read?

**Assessment Tools**
- BLM 2: Oral Language Tracking Sheet
- BLM 3: Small-Group Observation Tracking Sheet
- BLM 5: Strategy Rubric Strip—Visualizing
Teacher Modelling

Use Transparency 6: Purple Frogs and its related teacher notes in Transparencies for Teacher Modelling to model how readers use visualizing.

Before

USING PERSONAL EXPERIENCES

1. Ask students to think about systems they have seen or used in their school, home, or community for classifying or organizing objects, information, or events into groups. For example, books in the school library, recipes in a recipe card box, songs on an iPod menu, food in a restaurant menu, and so on.

2. Let students work with a partner to describe a system they are familiar with for classifying objects, information, or events. Record the following questions on the board to guide their discussion:
   • What objects or information are being classified or organized?
   • What groups are used to classify the objects or information?
   • What characteristics do the objects or information in each group share?

3. Invite students to share their descriptions of a classification system. Ask:
   • Why do people organize or classify objects and/or information? (Makes information or objects easier to find; helps to show how objects or information are similar to or different from one another)

During

INTRODUCING THE TEXT

1. Let students spend a few minutes previewing the title, headings, and illustrations. Ask:

V Vocabulary

algae a group of plantlike water organisms
chlorophyll the green substance in plants that uses light to change carbon dioxide and water into carbohydrates
exotic strange or unusual
kingdoms categories of the natural world
mildew a grey, black, or greenish fungus that grows on organic materials
organelles specialized parts of a cell

Strategy Tip: Use context

Tell students that one way to figure out the meaning of an unknown word is by looking at the words that come before or after the unknown word for clues to its meaning. To demonstrate, read aloud the following sentence: “Bacteria and blue-green algae are examples of monera.” Ask:
   • What are monera? (bacteria; blue-green algae)
   • What signal words helped you figure out the meaning? (are examples of)
How Does Scientific Classification Work?

Scientists divide all living things into groups called kingdoms. Then the kingdoms are divided into smaller groups, and those groups are divided into even smaller groups, and so on. As you move from larger to smaller groups, the organisms in each group have more in common.

### Scientific Classification

- **Kingdoms:** five groups that contain all living things
- **Phyla:** each kingdom is divided into smaller groups called phyla (singular: phylum)
- **Classes:** each phylum is divided into smaller groups called classes
- **Orders:** each class is divided into smaller groups called orders
- **Families:** each order is divided into smaller groups called families
- **Genera:** each family is divided into smaller groups called genera (singular: genus)
- **Species:** each genus is divided into smaller groups called species

#### How Does Scientific Classification Work?

Scientists divide all living things into groups called kingdoms. Then the kingdoms are divided into smaller groups, and those groups are divided into even smaller groups, and so on. As you move from larger to smaller groups, the organisms in each group have more in common.

#### Differentiated Instruction: Extra Support

**Pause for Reflection**

Choose a passage from “Scientific Classification” for students to read and copy it on the board or chart paper. Insert a dot or asterisk beside every third or fourth sentence in the passage. Explain that each mark represents a “pause for reflection” point where students are to stop and think about the words they have just read. Before they continue reading, ask students to create a mental picture and circle the words that helped them create this image. Tell them to select one “pause” point and draw an illustration or create a visual organizer to represent their understanding of the concepts the author describes.

- **What do you predict you are going to read about?** (scientific classification; animals and plants)

2. Direct students to read

Understanding Reading Strategies with you. Tell them that they will be learning to use the strategy of visualizing while they read this article.

**READING/VIEWING AND DISCUSSING THE TEXT**

1. Ask students to read the first paragraph under the heading What Is Classification? Direct students' attention to the first sticky note on page 44 and have them read it. Ask:

- What picture do you see in your mind when you think about how the books in your school library are organized?
- What are the major groups for organizing books in a school library? (fiction; nonfiction; reference books)
- Where in your school library do you recall seeing the letters and numbers used to organize the books? (on the spine of each book; in the card or online catalogue; on the library book shelves)
- What mental picture do you create when you think of trying to find a book in a library that doesn’t use a classification system? (a person becoming frustrated after spending hours and hours searching for a book)
- How does a comparison to a familiar thing such as the organization of your school library help you understand the concept of scientific classification? (just like librarians organize thousands of books into different groups to help people find books easily, scientists organize all living things into different groups to help people make sense of the millions of things that live in the world)

CONTINUED
2. Let students read to the end of Student Book page 44. Ask:

- What three groups of organisms or living things did you visualize as you read this section? (animals; plants; living things that aren’t animals or plants, such as bacteria and mushrooms)
- What groups of animals, within the animal group, did you visualize as you read the second paragraph? (reptiles; mammals; insects; fish)

3. Direct students to read How Does Scientific Classification Work? on page 45. Ask:

- What is meant by a “kingdom” in the scientific classification system? (the largest group in the system used to organize all living things found on Earth)

4. Let students read the “Scientific Classification” file card and the sticky note beside it. Ask:

- What visual organizer did you draw in your mind to help you understand the scientific classification system? (seven boxes, one underneath the other, with each one smaller than the one above it)
- What group did you visualize at the top of your visual organizer? (Kingdom)
- What group did you visualize at the bottom of your visual organizer? (Species)

5. Ask students to read all of the information about the cheetah on page 45. Ask:

- What familiar word did you think of when you read that the cheetah belongs to the “Mammalia” class? (mammal)
- What did you visualize that helps you understand the concept of “mammalia”? (animals such as dogs, tigers, and humans)

**Differentiated Instruction: ESL/ELL**

Prior to reading the article with other students, draw a web for English language learners to introduce the key concepts classification and kingdoms. Add an example from each of the five kingdoms as you talk, say, and print the words. Print the word visualization and explain what it means.

This type of pre-reading activity enables students to focus on the big ideas and ensures that they more fully participate in activities outlined in this Teacher’s Resource. As you proceed with the guided reading activities, think about other vocabulary that might pose difficulties for English language learners.

At times the explanations, questions, or cultural references may be confusing. For example, it is difficult for students to explain why a biologist uses scientific names if they are unfamiliar with the term biology. Providing simple explanations and synonyms for scientific terms and cultural references will support students as they proceed through the selections. Strategies such as information cards that provide opportunities to use new concepts and language can be enriched by partnering students with strong English language users who act as good models.
6. Invite students to read the text under Common and Scientific Names on page 46. Ask:
   - Why do biologists use scientific instead of common names for living things? (using their common names could be confusing because different common names are used in different parts of the world)

7. Instruct students to read the Moneran Kingdom and the Protist Kingdom on page 46. Ask:
   - What words help you visualize the size of a moneran? (single-celled; bacteria)
   - What words help you visualize how protists are similar to monera? (single-celled)

8. Read aloud the sticky note on page 46 to students. Ask:
   - What words help you visualize the difference between a moneran and a protist? (a moneran doesn’t have a nucleus; a protist has a nucleus and other cell parts called organelles)

9. Let students read the Fungus Kingdom on page 47. Ask:
   - What words in this section help you visualize fungi? (molds; mushrooms; mildew)
   - What mental picture of fungi did you create when you read this section?

10. Tell students to read the sections Plant Kingdom and Animal Kingdom on page 47. Ask:
    - What kinds of green plants did you picture in your mind? (trees; grass; flowers)
    - What kinds of animals did you visualize moving around to feed? (cows; horses; fish)

11. Read aloud the sticky note on page 47 to students. Ask:
    - Which kingdom has the most different known species? the least? (animal; moneran)
Checking Progress

Key Assessment Questions
Students may respond to the Key Assessment Questions either in writing or orally in a conference. Ask:

- What comparisons to familiar things in the text helped you to understand concepts?
- What information helped you draw a visual organizer in your mind?
- What important information helped you draw accurate pictures in your mind?
- What numbers in the text helped you to visualize quantity?
- How does visualization help the reader understand what is read?

Record individual progress on BLM 5: Strategy Rubric Strip—Visualizing.

Next Steps

For students who need extra support with understanding how to visualize, use “Animals: Invertebrates and Vertebrates” in Student Book 6a, pp. 48–50, for guided reading.

For students who understand visualizing, use “Animals: Invertebrates and Vertebrates” in Student Book 6a, pp. 48–50, for independent practice.

ORAL LANGUAGE: DISCUSSING THE TEXT

1. What are the names of five kingdoms in the scientific classification system? (Moneran; Protist; Fungus; Plant; Animal)
2. Why is there such a variety of living things in the world? (there are different habitats throughout the world; each one is home to different living things)
3. Can the number of known species of living things in the world change? Why or why not? (yes: new species are being discovered; some are becoming extinct)

MEDIA: CREATING AN INFORMATION CARD

Invite students to research a living thing of their choice and create an information card for it. Each card should include a picture of the living thing, a listing of its scientific classification, its common and scientific names, and a short paragraph describing it. Students can use the example of the information about the cheetah on Student Book page 45 as a model. Post the completed information cards on a classroom bulletin board.

ASSESSMENT FOR LEARNING

Strategy Rubric Strip: Visualizing
A full-size version of this rubric, suitable for recording assessments, is provided on BLM 5.
Prescribed Learning Outcomes

ENGLISH LANGUAGE ARTS

OL: Oral Language

R/V: Reading/Viewing

W/R: Writing/Representing

OL
A1: Use speaking and listening to improve/deepen comprehension

R/V
B6: Use strategies during reading/viewing to visualize

W/R
C2: Use new and specific words in informational writing

W/R
C6: Use strategies during writing/representing to consult reference materials

SCIENCE CONNECTION

Life Science: Diversity of Life:
Distinguish between life forms as belonging to one of five kingdoms: Plantae, Animalia, Monera, Protista, Fungi.

About This Selection

This informational report identifies the common characteristics of animal species and the difference between invertebrates and vertebrates.

The clearly written text and the informative examples make this text accessible to most students.

ASSESSMENT FOR LEARNING

Ongoing Observation
Students who understand will
• use comparisons to familiar things to help them understand concepts
• draw a mental visual organizer based on information in the text
• identify important information to help them draw accurate mental pictures
• use numbers to visualize quantity
• explain how visualizing helps the reader understand what is read

Differentiated Instruction
If students do not understand,
• provide extra support in a guided reading lesson (see Differentiated Instruction: Guided Practice, p. 25)
• use Identifying Important Information and Numbers (see Differentiated Instruction: Extra Support, p. 25)

If students find this text difficult to read,
• use a guided practice approach,
• allow them to listen to the selection on the audio CD, or
• choose an alternative selection from your school collection

Assessment
Demonstration Task, p. 27

Key Assessment Question
• How did visualizing help you understand “Animals: Invertebrates and Vertebrates”?

Assessment Tools
BLM 2: Oral Language Tracking Sheet
BLM 3: Small-Group Observation Tracking Sheet
BLM 4: Self-Assessment Checklist and Personal Goal Setting
BLM 5: Strategy Rubric Strip—Visualizing

Reflecting on Your Practice

How can I provide opportunities for my students to practise visualization in all the content areas?
Before

BUILDING BACKGROUND KNOWLEDGE

1. Write these words on the board or chart paper: parrot, elephant, turnip, polar bear, grape, trout, carrot, robin, salmon, pear, mosquito, banana, spider. Ask:
   - Divide this list of words into two groups. (Group 1: animals; Group 2: fruits and vegetables)
   - Divide the words in Group 1 into four smaller groups and give each group a title. (Birds: parrot, robin; Mammals: elephant, polar bear; Fish: trout, salmon; Insects: mosquito, spider)
2. Ask volunteers to explain their classification. (Birds: lay eggs, fly around; Mammals: bear young alive, walk around; Fish: lay eggs, swim around; Insects: lay eggs, have no bones)

During

INTRODUCING THE TEXT

1. Read the title with students and let them spend a few minutes previewing the selection. Ask:
   - What clues do the title and headings give you about the main topic of the text? (they hint that the article is about two different groups of animals)
2. Tell students that they are going to learn about two distinct groups of living things that biologists have classified within the animal kingdom: those with a backbone (vertebrates) and those without a backbone (invertebrates).
3. Direct students to Applying Strategies on page 48 and read it aloud to them. Ask:
   - How will visualizing help you understand “Animals: Invertebrates and Vertebrates”? (help me draw pictures in my mind and understand concepts)

Animals (1,518,000 Species)

From lions, tigers, and bears to jellyfish, sponges, and sea slugs, the animal kingdom is the largest and most diverse of the kingdoms. The species in this kingdom are further grouped into invertebrates (animals without backbones, such as spiders, insects, sponges, and worms) and vertebrates (animals with backbones—fish, birds, reptiles, amphibians, and mammals). With or without backbones, all animals share some characteristics. Unlike plants, animals cannot create their own food. They rely on other life forms for food. Some animals (herbivores) eat plants, while others (carnivores) eat the animals that eat the plants. Some animals (omnivores) eat both plants and animals.

Plants rely on animals, too. Most flowering plants need animals, especially insects, to take pollen from one flower to another so that new seeds can form. Without animals, many plants could not produce seeds.

Animals also help spread plant seeds. Birds and bats eat the fruit the plants produce. The fruit is digested and the seeds are dropped in the animal’s waste, away from the adult plant. This gives the new plants room to grow.

Vocabulary

amphibians animals that live both on the land and in water

digested food broken down so that it can be taken into the blood to nourish the body

diverse different

pollen a fine, yellowish powder made up of the male cells of flowering plants

portion a part or share

reptiles members of the cold-blooded animals whose bodies are covered with scales or plates

Strategy Tip: Use a vocabulary word map

A vocabulary word map is a visual organizer that helps students interact with and think about new words in several ways. Distribute BLM 6: Vocabulary Word Map and have students complete it for one word from the selection that they don’t know.
Animals: Invertebrates and Vertebrates

READING/VIEWING THE TEXT INDEPENDENTLY

Invite students to read to the end of the selection independently, using visualizing to aid comprehension. Provide students with sticky notes to mark places where visualizing helped them understand what they were reading.

OR FOR THOSE STUDENTS WHO NEED ADDITIONAL SUPPORT

DIFFERENTIATED INSTRUCTION: GUIDED PRACTICE

1. Read the title with the students. Ask:
   - When you read the title, what did you visualize? (different kinds of animals; animals with and without backbones)

2. Read aloud the introductory paragraph on page 48. Ask:
   - What important information helps you visualize how diverse the animal kingdom is? (the examples of different animals from lions to sea slugs)

3. Invite students to read the rest of page 48. Ask:
   - How does visualizing insects and worms help you understand the concept of invertebrates? (it helps me create an accurate picture in my mind of an animal without a backbone)
   - What visual organizer comes to mind when you read about what animals eat? (a big heading Animals; underneath are three smaller headings: Herbivores, Carnivores, Omnivores)

DIFFERENTIATED INSTRUCTION: EXTRA SUPPORT

Identifying Important Information and Numbers

Write the following passage of text on the board or chart paper:

The frilled lizard, or frilled dragon, has a large, thin frill around its head that it ruffles out like an umbrella in order to frighten enemies. When displayed, the frill looks like a collar that is 24–34 cm wide and extends out around the lizard’s wide-open mouth. In order to seem even more impressive, the lizard stands up on its hind legs. If that doesn’t work, or if the lizard gets frightened, it will run away using only its back legs, earning it the nickname, the “bicycle lizard.”

Read the passage aloud with the students. Afterwards, ask students to come up to the board and underline or circle important information and numbers that helped them visualize while they listened and read along.
DIFFERENTIATED INSTRUCTION: GUIDED PRACTICE

4. Let students read the section on Invertebrates on Student Book page 49. Ask:
   - What number helps you visualize how many different invertebrate species there are in the world? (1,265,500)
   - What important information does the author provide that helps you draw an accurate picture of an “exoskeleton”? (tough, outer covering)
   - What words and numbers help you visualize the size of the insect group? (“more than three-quarters of all invertebrates”)
   - What comparison to a familiar thing does the author make to help you visualize the size of the giant squid? (its eyes are as big as basketballs)

5. Read aloud the sidebar text on page 49 to students. Ask:
   - Draw a visual organizer of this text in your mind. What would you draw first? (the heading Some Types of Invertebrates)
   - What would you draw next? (four boxes with sub-headings: Arachnids; Mollusks; Crustaceans; Cnidarians)

6. Invite students to read the section on Vertebrates on page 50. Ask:
   - What words help you visualize what a backbone looks like? (a series of bones that house and protect the spinal cord)

After

These questions and activities give students the opportunity to share and consolidate their learning about visualizing. You may use BLM 2: Oral Language Tracking Sheet and BLM 3: Small-Group Observation Tracking Sheet to track student progress through the unit.

Vertebrates (52,500 Species)
Vertebrates are the animals we know best. Why? Because even without a microscope, they are easy to find. All it takes is a quick look in a mirror to bring you face to face with one. But although vertebrates are all around us, they make up only a tiny portion of the species on Earth. Vertebrates are subdivided into fish, birds, reptiles, amphibians, and mammals. The main thing they have in common is a backbone, which is made up of a series of bones called vertebrae. The vertebrae house and protect the spinal cord, which works with the brain to control everything in the body. Vertebrates also have an internal skeleton that allows for movement, support, and protection. Today, vertebrates can be found on land and in water. But the first vertebrates lived only in the seas. About 360 million years ago, some of these creatures started to move out of the sea, and vertebrate life on land began.

Types of Vertebrates
- 25,100 fish
- 9,800 birds
- 8,000 reptiles
- 4,960 amphibians
- 4,640 mammals

Reflect on
Strategies: Find a place where you drew a visual organizer in your mind to help you understand what you were reading.
Your Learning: Which group in the animal kingdom is most interesting to you? What would you like to find out about this group?

Word Study
Commas That Separate Words in a List
1. Write the following sentence on the board:
   Spiders butterflies sea sponges jellyfish bees giant squids mosquitoes and worms are all animals classified as invertebrates.
   - What punctuation would you use to make the meaning of the sentence clear and the sentence easier to read? (comma)

2. Invite several students to read the sentence to the class. Note the pauses they naturally use as they read in order for the sentence to flow and for the list of animals to make sense. (sea sponges and giant squids will require special attention) Ask:
   - What punctuation would you use to make the meaning of the sentence clear and the sentence easier to read? (comma)

3. Have a student come up and place the commas where they are needed. Then reread the sentence, pausing where the commas are placed. Ask:
   - What rule for the use of commas could be stated here? (Use commas to separate words in a list)

You may wish to use Word Study Master 2.
Reflecting on the Strategy

1. Read aloud the Strategies question on Student Book page 50. Invite students to create a sketch of a visual organizer they drew in their mind to help them understand what they were reading, and then share their sketch with a partner.

2. Let students read the Your Learning questions on page 50.

Oral Language: Discussing the Text

1. Give some examples of invertebrates. (insects; jellyfish)
2. Give some examples of vertebrates. (cats; fish)
3. Are you a vertebrate or an invertebrate? Why?

Reading/Viewing and Representing: Research an Animal Class

 Invite students to research an interesting animal class. Provide them with print resources and pre-selected websites. Ask students to write a short description of the common characteristics of the class and give some examples.

Assessment for Learning

Checking Progress

Demonstration Task

Direct students to make a chart with three columns. In the first column, “The Text Says,” students write an example of a comparison, important information, or a number from “Animals: Invertebrates and Vertebrates.” In the second column, “I Visualize,” they sketch pictures or a visual organizer that they see in their minds when they read the words they listed in the first column. In the third column, “Comparison, Important Information, or Numbers?,” they identify whether comparisons to familiar things, important information, or numbers helped them to visualize.

Key Assessment Question

Students may respond to the Key Assessment Question either in writing or orally in a conference. Ask:

• How did visualizing help you understand “Animals: Invertebrates and Vertebrates”?

Record individual progress on BLM 5: Strategy Rubric Strip—Visualizing.

Next Steps

Use the following resources to give students further opportunities to practise their reading strategies in small groups, independently, or in literature circles.

Nelson Literacy

Guided and Independent Reading Kit

#5 Well Below: Meet the Muskox

#6 Easy: Hilarious Honkers

#7 Average: Dragon Alert

#8 Challenging: The Truth About Bugs

Other Nelson Resources

Boldprint 5: For the Birds!

Skyrider Double Takes 6: Classified

Skyrider Investigations 4: All About Arthropods

Reading for Real 6: Incredible Insects

Strategy Rubric Strip: Visualizing

A full-size version of this rubric, suitable for recording assessments, is provided on BLM 5.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Not Yet Within Expectations</th>
<th>Meets Expectations (Minimal to Moderate)</th>
<th>Fully Meets Expectations</th>
<th>Exceeds Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>• uses comparisons to familiar things to help them understand concepts</td>
<td>• with limited effectiveness</td>
<td>• with some effectiveness</td>
<td>• with considerable effectiveness</td>
<td>• with a high degree of effectiveness</td>
</tr>
<tr>
<td>• draws a mental visual organizer based on information in the text</td>
<td>• with limited effectiveness</td>
<td>• with some effectiveness</td>
<td>• with considerable effectiveness</td>
<td>• with a high degree of effectiveness</td>
</tr>
<tr>
<td>• identifies important information to help them draw accurate mental pictures</td>
<td>• with limited effectiveness</td>
<td>• with some effectiveness</td>
<td>• with considerable effectiveness</td>
<td>• with a high degree of effectiveness</td>
</tr>
<tr>
<td>• uses numbers to visualize quantity</td>
<td>• with limited effectiveness</td>
<td>• with some effectiveness</td>
<td>• with considerable effectiveness</td>
<td>• with a high degree of effectiveness</td>
</tr>
<tr>
<td>• explains how visualizing helps the reader understand what is read</td>
<td>• with limited effectiveness</td>
<td>• with some effectiveness</td>
<td>• with considerable effectiveness</td>
<td>• with a high degree of effectiveness</td>
</tr>
</tbody>
</table>

Cross-Curricular Application

• applies the skills involved in visualizing in other areas of the curriculum

• with limited effectiveness

• with some effectiveness

• with considerable effectiveness

• with a high degree of effectiveness

Student Self-Assessment

Encourage students to think back to their learning with “Scientific Classification” and “Animals: Invertebrates and Vertebrates” and reflect on their ability to use visualizing as a reading comprehension strategy. Ask them to describe, while conferencing with you or a peer, how they might have used this strategy in other subject areas. Then direct them to check off the appropriate box on BLM 4: Self-Assessment Checklist and Personal Goal Setting.