PROGRESS IN INTERNATIONAL READING LITERACY STUDY

PIRLS

2011 ITEM WRITING GUIDELINES

Ina V.S. Mullis, Michael O. Martin,
Ann M. Kennedy, and Kathleen L. Trong

Table of Contents

Introduction

PIRLS, IEA's Progress in International Reading Literacy Study, assesses reading achievement at the fourth grade across a large number of countries, cultures, and languages. PIRLS is designed to help countries improve the teaching and learning of reading. Our goal is to provide policy makers and educators with the information they need to help all students become better readers.

Data from the PIRLS assessments are used to:

- Evaluate how well students can read

- Monitor progress over time in reading achievement

- Relate achievement to home and school factors to provide information for educational improvement.

One major task of the 2nd meeting of the PIRLS National Research Coordinators (NRCs) in Amsterdam, The Netherlands, is the selection of literary and informational passages for the PIRLS 2011 field test. To help ensure that the best possible items are developed for the passages, the TIMSS & PIRLS International Study Center is conducting an item writing workshop in conjunction with the NRC meeting to write items for the selected passages. In this workshop, participants will be organized into groups

To facilitate the success of the workshop and the item development, we have asked experts in reading test development to help conduct the workshop. Also, we have prepared this manual to provide information on writing and reviewing items and scoring guides for PIRLS 2011. We have established some basic procedures for you to follow so that the PIRLS test is uniform in approach and format.

Writing Items for PIRLS 2011

Currently the plan is to develop two new literary passages and items and two new informational passages and items for PIRLS 2011. To ensure that we have enough excellent passages for each purpose, we plan to field test twice as many passages as needed for the assessment. Thus, we anticipate the field test for PIRLS 2011 will include:

- 4 literary passages and items

- 4 informational passages and items

Item Formats

The two item formats used most in PIRLS are multiple-choice and constructed-response. About half of the items you develop should be multiple-choice and half should be constructed-response.

- **Multiple-choice items** allow valid, reliable, and economical measurement of a wide range of cognitive processes in a relatively short testing time.

- **Constructed-response items** allow students to demonstrate behaviors such as supporting an answer with evidence, explaining characters' actions, describing an event or procedure, and making predictions.

Other item types also can be used as long as they provide valid measures and are feasible to administer and to score reliably. These types of items may include asking students to:

- Number the sequence of events in a passage.

- Match characters to their actions or what they said (quotes).

- Complete information in a table.

Number of Items and Score Points per Passage

To have a reliable measure of reading comprehension, each passage should have questions worth a total of at least 15 score points. Considering that items sometimes are deleted during the field testing and review process, please write items totaling 18-20 score points per passage. On average, this will be 12 to 14 items per passage.

- Multiple-choice questions are worth one point.

- Constructed-response questions are worth **one, two, or three points**, depending on the depth of reading understanding required.

An important part of writing constructed-response questions is deciding how many points a full-credit response will be worth, and developing the accompanying scoring guide. Scoring guide development is covered in detail in later sections.

PIRLS Item Specifications

For the PIRLS assessment to be a valid and fair measure of the how well students can apply reading comprehension processes to the texts in the assessment, every question or idea for a question needs to be aligned with the specifications in the PIRLS framework and focus on important ideas or information in the passage.

Addressing the PIRLS Framework

Every item written for the PIRLS assessment needs to measure one of the purposes and one of the reading processes described in the PIRLS framework. Figure 1 shows the purposes and processes included in the framework and the approximate distribution of total testing time to be allocated to each.

Purposes for Reading	
Literary Experience	50%
Acquire and Use Information	50%
Processes of Comprehension	
Focus on and Retrieve Explicitly Stated Information	20%
Make Straightforward Inferences	30%
Interpret and Integrate Ideas and Information	30%
Examine and Evaluate Content, Language, and Textual Elements	20%

Purposes for Reading

The classification of items according to the two purposes is done at the passage level. Each PIRLS passage has been selected to measure literary or informational reading. To meet the targets specified in the framework, 50% of the passages for the field test and main survey will be literary passages and 50% will be informational passages.

Please keep the reading purpose of the passage firmly in mind when writing questions, as reading purposes do not always align with particular text types. If the text is classified as literary, write the types of questions that are appropriate for addressing the purpose. If the text is classified as informational, write those types of questions. A text map was created to summarize the important parts of each passage. Texts maps for literary and informational passages have different structures according to the reading purpose and structural elements of a text.

Processes of Comprehension

Within the literary and informational purposes, PIRLS assesses four types of reading comprehension processes. In developing items, please pay particular attention to the percentage of assessment score points allocated to each process as shown in Figure 1.

Converting the percentages into score points, means developing questions for each passage that will yield:

- 3-4 score points for focusing on and retrieving (probably also 3-4 items, since the questions primarily will be multiple-choice or one-point constructed response)

- 5-6 score points for straightforward inferencing (probably 4 or 5 items, since the questions primarily will be multiple-choice or one- and two-point constructed-response questions)

- 5-6 score points for interpreting and integrating (probably 2 or 3 items, since they primarily will be longer constructed-response questions worth two or three points)

- 3-4 score points for examining and evaluating (typically a range of item types, so they might range from 4 multiple-choice questions to 1 long three-point constructed-response question)

Some passages lend themselves to assessing some processes more than others. Thus, it may not be possible to meet the targets specified in the framework for every passage. Still, please try to meet the specified percentages as much as possible.

Asking About Important Ideas and Information

Developing items that assess reading comprehension in a meaningful way requires paying considerable attention to passage dependency. In developing items, be sure that you are always firmly grounded in the text. Develop items that:

- Ask about the central ideas in the passage.

- Only can be answered by having read the text.

Text maps aid in understand a text's central idea and are provided for each passage. Text maps are written summaries and graphic representations of how ideas and information are logically connected in the passages. A text map serves as a blueprint of the important facts, ideas, and concepts in the passage. More specifically, text maps can help ensure that:

- The important rather than the trivial elements of the passage are assessed by the items.

- The items are distributed evenly across various important elements in the text.

Literary Text Maps

Although literary texts can include a variety of genres and structures, PIRLS primarily uses narratives or stories. Essentially, the text maps for narratives or stories identify the theme(s), overall plot (such as problem situation and resolution), setting(s), major character(s), major events or episodes in the story, and the key expressions—vocabulary and literary devices in the story.

Informational Text Maps

Since PIRLS uses a wide variety of articles, texts, and graphic presentations about various topics, the maps for the informational texts take different forms. The map shows the organizational structure of the text and the hierarchy of information within it. For example, the passage may include a central purpose, main ideas, overarching concepts, explanations, examples, and supporting details. Possible structures include main ideas followed by examples and supporting details, chronological sequences, and comparison/contrast, cause/effect, or problem/solution relationships. Informational texts often are combinations of two or more organizational structures, and the different sections can have different structures.

Appendix A provides a model and example text map for a literary text. Appendix B provides models and examples for five different possible structures for informational texts. These are provided so that you can better understand the process. However, for this workshop text maps are provided for you. The PIRLS Reading Development Group (RDG) has developed some possible questions for each passage that assess understanding of central information.

Constructing the Item Sets for Each Passage

There are some guidelines to consider in developing the 12 to 14 items necessary for each passage.

1. **Early questions should be easier questions.** Begin with a question or two that help the students "warm up" before asking more difficult questions. These questions should be of relatively low difficulty and invite the student into the passage. The question might ask about main topic of the passage or about some reasonably important or basic information found early in the text.

2. **Questions should be asked in the same sequential order as the passage.** Ask the questions in the same sequence that the answers can be found in the text. This is especially important for the questions assessing retrieving information and making straightforward inference, but can apply to all questions. Students should not have to spend valuable assessment time jumping back and forth through the text to find the answer to the questions.

3. **Not all questions measuring higher-order processes should appear at the end of the set of items.** Questions assessing interpreting and integrating or examining and evaluating processes should be interspersed across the item set. This gives students who may not have time to finish all of the items the opportunity to demonstrate these types of skills.

4. **Develop one three-point question for each passage.** This question should assess the interpreting and integrating process or the evaluating process. We ask one three-point question for each passage to give students an opportunity to demonstrate the depth of their understanding. We do not ask more than one three-point question, because they are so time consuming for students to answer. The three-point question should not be asked as one of the first questions because students need the benefit of having warmed up. Also, it probably is not optimal to have it be the last question, because this makes it quite tempting for students to skip it and be finished.

5. **Make sure the items are as independent as possible.** Make sure that the information in the item does not provide clues to answers to other items in the set. Also, answering an item correctly must NOT depend on

answering a previous item correctly. Pay particular attention to information in both the stem and options for multiple-choice items. Also, check to see that the constructed-response questions elicit different answers and require more than repeating the theme or major idea from question to question.

General Issues in Writing Items for PIRLS

Item writing is a task that requires imagination and creativity, but at the same time demands considerable discipline in order to meet all of the criteria discussed in this manual. The previous sections of this manual have presented guidelines specific to the PIRLS 2011 passages. The guidelines in this section pertain to good item and test development practices in general, and have been collected from a number of sources. These issues also must be considered in judging the quality and suitability of an item for PIRLS 2011.

Testing Time

In developing items, it is important to consider the time required for students to complete the required task. In PIRLS, students have 40 minutes to read and answer the questions about each passage. As a general rule, a typical fourth-grade student is expected to complete a multiple-choice item in approximately one minute. Constructed-response items are allocated more testing time in the PIRLS design, with 1-2 minutes for short-answer items and 3-5 minutes for extended-response items. When writing a set of items, please keep the total time it will take students to respond into consideration.

Grade Appropriateness

The language, style, and reading level used in items must be appropriate to the age and experiences of the students in the target grade. The items should be written at a reading level such that

students should be able to understand the demands of an item without difficulty.

Item Difficulty

It is desirable that there be some relatively easy items and some challenging items. However, items that almost all students or almost no students are able to answer correctly reduce the effectiveness of the test to discriminate between groups with high achievement and groups with low achievement.

Avoiding Bias

In preparing test items, be sensitive to the possibility of unintentionally placing groups of students at an unfair disadvantage. In an international study, extra care is required to consider the diversity of environments, backgrounds, beliefs, and mores among students in the participating countries.

Considering National Contexts

Be particularly aware of issues related to nationality, culture, ethnicity, and geographic location. Items requiring background knowledge confined to a subset of participating countries are unlikely to be suitable.

Geographic location has an effect on the learning experiences students are exposed to, as aspects of the local environment have an impact on schooling. Even though television and the Internet can provide students with some knowledge of remote places, firsthand experience of some phenomena enhances understanding and can give some students an advantage over others.

A gender-related context included in an item may distract some students from the purpose of the item. Situations in which stereotypical roles or attitudes are unnecessarily attributed to males or females, or in which there is implicit disparagement of either gender, are not acceptable.

Facilitating Comparable Translation

The international version of items will be in United States English. After review and revision, the items selected are then translated from English into the languages of instruction of the countries in the study. Therefore, be sensitive to issues that might affect how well items can be translated to produce internationally comparable items.

Writing Multiple-Choice Items

A multiple-choice item asks a question or establishes the situation for a response. This type of item provides a limited number of response choices, or options, from which the correct answer is selected. A multiple-choice item is characterized by the following components:

- The *stem* is the initial part of the item in which the task is defined.

- The *options* refer to the entire set of labeled response choices presented under the stem.

- The *key* is the correct response option.

- The *distracters* are the incorrect response options.

The next sections present guidelines specific to multiple-choice items, including writing the stem, structuring the response options, and developing plausible distracters.

The Stem

For PIRLS, since the students are relatively young and clarity is of vital importance, please phrase all stems as a **direct question.**

Example of a stem formulated as a *question*:

Where did Labon put the mousetraps?

- Ⓐ In a basket
- Ⓑ Near the mouse holes
- Ⓒ Under the chairs
- Ⓓ On the ceiling

1. Provide sufficient information in the stem to make the task clear and unambiguous to students. Students should be able to answer the question before reading the options.

2. The stem should not include extraneous information. Extraneous information is liable to confuse students who otherwise would have determined the correct answer.

3. Do NOT use negative stems – those containing words such as NOT, LEAST, WORST, EXCEPT, etc. If it is absolutely necessary to use a negative stem, highlight the negative word, (e.g., capitalize, underline, or put in bold type so that it stands out for the student). If the stem is negative, do NOT use negative response options.

4. If there is not one universally agreed upon answer to the question, it is best to include "of the following" or some similar qualifying phrase in the stem.

Structure of the Response Options (or Alternatives)

1. As shown in the "Labon" example above, multiple-choice items for PIRLS have four response options, labeled A–D.

2. Make sure that one of the four response options or alternatives is the **key or correct answer.** Make sure there is only one correct or best answer. For example, response options cannot represent subsets of other options. Also, do not use subsets of response options that together account for all possibilities (e.g., day and night), since one of these must be the key.

3. Make sure that the grammatical structure of all response options "fit" the stem. Inconsistent grammar can provide clues to the key or eliminate incorrect response options.

4. Make sure all (or sets) of the response options are parallel in length, level of complexity, and grammatical structure. Avoid the tendency to include more details or qualifications in the correct response, thus making it stand out.

5. If a word or phrase is repeated in each of the response options, try to reduce the reading burden by moving the word(s) to the stem. However, do not sacrifice clarity to save a few words.

6. Do not use words or phrases in the stem that are repeated in one of the response options and, therefore, act as a clue to the correct response.

7. Do **NOT** use "none of these" and "all of these" as response options.

Plausibility of Distracters

Use plausible distracters (incorrect response options) that are based on likely student errors or misconceptions according to the information in the text. This reduces the likelihood of students arriving at the correct response by eliminating other choices and, equally important, may allow identification of widespread student misunderstandings or tendencies that could lead to curricular or instructional improvements. However, avoid the use of "trick" distracters.

Writing Constructed-Response Items and Scoring Guides

For some desired outcomes of reading education, constructed-response items provide more valid measures of achievement than do multiple-choice items. However, since these items often are time consuming for students to answer, and always are labor intensive and costly to score reliably, it is important to:

- restrict the use of constructed-response items to assessing outcomes that multiple-choice items cannot measure well, and

- accompany each constructed-response item with a well-structured scoring guide.

The quality of constructed-response items depends largely on the ability of scorers to assign scores consistently in a way that has significance for teaching and learning, and that is reliable within and across countries. This makes it essential to develop each constructed-response item and its scoring guide together. Each constructed-response item must provide important information and be able to be scored reliably.

Developing a constructed-response item accurately targeted on the ability to be assessed, along with the accompanying scoring guide, is not a straightforward task. If the task is not well specified, students may interpret the task in different ways and respond to different questions.

Communicating Expectations to Students

A critical point to remember in writing constructed-response items is that the item must communicate expectations to students about what is necessary for full credit as clearly as possible without compromising the intent of the item.

The number of points for each question will be shown via the pencil symbol and the length of the expected response indicated via the number of lines and space provided. However, a well-written question that clearly communicates our expectations is the best place to start.

1. Use words such as "explain" or "describe" to focus students on the task rather than vague words such as "discuss" or "comment" that can lead to wide variation in the content of responses.

2. Give an indication, where appropriate, of the extent, or level of detail, of the expected answer. For example, tell students how many reasons are required as in "Give three reasons …" rather than "Give some reasons …".

3. Consider formatting the response space for the constructed-response items to provide help or scaffolding for students.

Give three things the lion did in the story that show the lion was brave.

1. _____

2. _____

3. _____

Do you think the lion was brave?

Ⓐ   Yes

Ⓑ   No

Please describe what the lion did in the story that makes you think so.

_____

How did the lion act in the story? What did the lion do that shows this?

The lion was _____, because he _____

_____

Writing a Full-Credit Response to the Question

As you are writing a constructed-response item, please write a full-credit answer to the question in terms of the language, knowledge, and skills that a fourth grade student could be expected to possess. This is an essential first step in producing a scoring guide and testing the viability of the question. If you cannot answer the question or disagree among yourselves, then the question should be reconsidered. In any case, thinking of the answer simultaneously with developing the question usually results in revisions to the item to clarify its purpose and improve the quality of information that can be obtained from student responses. Writing the answer also provides guidance about the number of score points to allocate to the item.

Passage dependency is very important in considering the quality of students' responses to constructed-response items. The plausibility and completeness of a response should be considered with regard to the focus or main points of the text. Students' answers should be text-based to receive credit. Because of this, make sure the information is in the text. For example, if only two reasons or examples are given in the text do not ask students to supply three of them.

Developing Scoring Guides

Scoring guides with well-defined criteria for assigning score points are essential to ensure scoring reliability for scoring constructed-response items. Each constructed-response item needs a unique tailored scoring guide that:

- Provides a clear description of the requirements for a fully correct response.

- Defines parameters for partial-credit level(s) (if applicable).

In defining levels of partial credit, consider the accuracy and completeness of the information provided. Students' answers can provide insights into what they know and are able to do, and how they utilize their knowledge and skills to understand what they read. The distinction between the levels of partial credit should reflect students' skills in a meaningful way.

The next section provides the generalized scoring guides or templates for each of the score-point levels. The section after that presents actual examples from PIRLS 2006 of how the generalized guides or templates were operationalized for specific one-, two-, and three-point constructed-response questions.

The PIRLS Generalized Scoring Guidelines

Students' answers to the constructed-response questions are evaluated according to scoring guides that describe specific aspects of the response, which are considered to be evidence of performance at a particular score level. Although each guide is tailored to a specific comprehension question, there are commonalities across all the guides. For example, the lowest score level in each guide — a score of 0 — represents no comprehension of the aspect of the text being assessed by the question. Responses that receive a score of 0 may represent a misunderstanding of the text or the question, or include only information that is so vague that assigning a higher score is unwarranted.

Figures 2 through 4 contain the generalized scoring guides for one-, two-, and three-point questions, respectively. Each of the guides describes the degree or nature of comprehension associated with each score level in that guide. The score point labels vary across the three guides in order to distinguish them from each other, and to convey the range of comprehension abilities being described in each guide. These generalized scoring guides are the basis for the unique guides developed for each comprehension question in the assessment.

Figure 2: Generalized Scoring Guide for One-Point Questions

Acceptable Response (Score = 1)

These responses demonstrate comprehension of the aspect of text addressed in the question. They include all elements required by the question. The responses are determined to be accurate based on ideas or information in the text.

Unacceptable Response (Score = 0)

These responses do not demonstrate comprehension of the aspect of text addressed in the question. They may attempt to provide some or all of the elements required by the question. The responses, however, are determined to be inaccurate based on information or ideas in the text. Or, they include only ideas or information that are too vague or unrelated to the question to be considered accurate.

Also give a score of "0" to uninterpretable responses. This includes crossed-out and erased attempts, illegible and off-task responses, and drawings and doodles.

Figure 3: Generalized Scoring Guide for Two-Point Questions

Complete Comprehension (Score = 2)

These responses demonstrate complete comprehension of the aspect of text addressed in the question. They include all elements required by the question. When required, they demonstrate a level of comprehension that goes beyond a literal understanding, and provide appropriate interpretations, inferences, or evaluations that are consistent with the text. Or, they include complete and adequate ideas or information from the text to support an interpretation, inference, or evaluation based on the text.

Partial Comprehension (Score = 1)

These responses demonstrate only partial comprehension of the aspect of text addressed in the question. They may include some, but not all, of the elements required by the question. Or, they may address all elements required by the question, but demonstrate only a literal understanding when the question asks for an interpretation, inference, or understanding of a more abstract concept. When required by the question to provide an explanation for an interpretation, inference, or evaluation, the responses may lack adequate textual support, or provide only unrelated or vague information.

No Comprehension (Score = 0)

These responses demonstrate no comprehension of the aspect of text addressed in the question. They may attempt to provide some or all of the elements required by the question, however, the response is determined to be inaccurate based on ideas or information in the text. Or, they may fail to address any element required by the question. Or, the responses include only information or ideas that are too vague or unrelated to the question to be considered evidence of comprehension.

Also give a score of "0" to uninterpretable responses. This includes crossed-out and erased attempts, illegible and off-task responses, and drawings and doodles.

Figure 4: Generalized Scoring Guide for Three-Point Questions

Extensive Comprehension (Score = 3)

These responses demonstrate extensive comprehension of the aspect of text addressed in the question. They include all of the elements required by the question. When required, they demonstrate understanding of ideas and information that are relatively complex, abstract, or central to the theme or main topic of the text. In doing so they go beyond a literal understanding of the text, and provide substantial text support for inferences, interpretations, or evaluations when required by the question.

Satisfactory Comprehension (Score = 2)

These responses demonstrate satisfactory comprehension of the aspect of text addressed in the question. They may include all of the elements required by the question, but do not provide evidence of understanding text ideas or information that may be considered complex or more abstract. Or, they show some evidence of moving beyond a literal understanding of the text to make inferences, interpretation, or evaluations; however, the textual support provided in the response may not be conclusive.

Minimal Comprehension (Score = 1)

These responses demonstrate minimal comprehension of the aspect of text addressed in the question. They include some, but not all, of the elements required by the question. They may demonstrate understanding of specific ideas or information in the text at a literal level, but do not make connections between them when required by the question. When required by the question to provide textual support for an inference or interpretation, the responses may include only inadequate or unrelated evidence from the text.

Unsatisfactory Comprehension (Score = 0)

These responses demonstrate unsatisfactory comprehension of the aspect of text addressed in the question. They may attempt to include some of the elements required by the question, but they are determined to be inaccurate or inappropriate based on ideas or information in the text. Or, they may fail to address any element required by the question. Or, the responses include only ideas or information that are too vague or unrelated to the question to be considered evidence of at least minimal comprehension.

Also give a score of "0" to uninterpretable responses. This includes crossed-out and erased attempts, illegible and off-task responses, and drawings and doodles.

Tailoring the PIRLS Generalized Scoring Guides for Each Unique Constructed-Response Item

Using the generalized guides or templates presented in the previous section, develop a unique scoring guide tailored to each constructed-response question. Two critical goals must be addressed in developing the scoring guides for each constructed-response item:

- Making the criteria as specific as possible in order to standardize scoring decisions across countries.

- Providing for a range of responses within each score level.

These somewhat conflicting goals of specificity and flexibility are addressed by providing both specific and general descriptions of comprehension at each score level. To provide examples of how this is accomplished, Figures 5 through 7 present examples of one-, two-, and three-point scoring guides, respectively, from PIRLS 2006. The scoring guide in Figure 5 is discussed in detail so that several key features of the guides can be explained.

The scoring guide in Figure 5 is for a one-point question developed to assess students' ability to make straightforward while reading for the purpose of literary experience. The "purpose" and "process" assessed by each question is identified at the top of the first page of every guide. Each scoring guide is divided into sections corresponding to the number of score levels, including a score of zero. Note that this one-point guide has two sections—the first section provides criteria for a score of one, and the second section provides criteria for a score of zero.

For each score level, a general statement regarding the nature of comprehension that is characteristic of responses at that level is shown first. In this example guide, students must provide an appropriate inference regarding a character's action to receive a score

of one. This statement provides only general guidance for making scoring decisions. Specific examples of expected student responses are listed, although these examples are not an exhaustive list of all possibilities.

Figure 5: Example Scoring Guide for a One-Point Item

Unbelievable Night, Item 6

> 6. Why did Anina call the flamingos?

Purpose: Literary

Process: Make straightforward inferences

1 – Acceptable Response

The response demonstrates an understanding that the flamingos were food to the crocodile.

Examples:
- To feed the crocodile.
- So the crocodile would eat them and not her.
- Because they looked like a birthday cake for the crocodile.
- Because the crocodile looked hungry.

Or, the response demonstrates a general understanding that Anina used the flamingos to help her keep safe from the crocodile.

Example:
- So they would protect her from the crocodile.

0 – Unacceptable Response

The response includes no evidence of understanding that the flamingos helped her to get rid of the crocodile as food.

Examples:
- To get them to go back into the magazine.
- They would help get the crocodile back in the magazine.
- So they would give her back her mother's hat.

Figure 6: Example Scoring Guide for a Two-Point Item

Unbelievable Night, Item 8

8.   How did the magazine help Anina? Write two ways.

Purpose: Literary
Process: Interpret and integrate ideas and information

2 – Complete Comprehension

The response identifies two ways that Anina used the magazine to help her situation, either by teaching her about the animals from the magazine, helping her to get the animals out of her house, or feeding the crocodile. See the list below for appropriate ways that the magazine helped Anina.

1 – Partial Comprehension

The response identifies only one way the magazine helped her as listed below. The second way identified may be inaccurate or too vague.

0 – No Comprehension

The response does not identify any appropriate way in which the magazine helped Anina, or it may provide ways that are vague, inaccurate, or unrelated to the story.

Examples:
- Anina hit the crocodile with the magazine.
- It told her that the crocodile is hungry when it swings its tail.
- The magazine kept the crocodile from eating Anina. (Note that "kept the crocodile from eating Anina is too vague. Such a response must mention feeding the crocodile.)

How the Magazine Helped Anina

Acceptable ideas:
- It told her that when crocodiles swing their tails/whip the water it means that they are going to attack.
- It showed her where the crocodile had come from.
- It provided the flamingos. /It gave her something to feed to the crocodile.
- It helped her to get rid of the crocodile/flamingos (by sending them back on to the pages).

Figure 7: Example Scoring Guide for a Three-Point Item

Unbelievable Night, Item 11

11. You learn what Anina was like from the things she did. Describe what she was like and give two examples of what she did that show this.

Purpose: Literary
Process: Interpret and integrate ideas and information

<div>

3 – Extensive Comprehension

The response provides at least one valid, appropriate description of what Anina was like (e.g., clever, fast thinker, innovative, creative, resourceful, brave, cautious, fearful, frightened, scared, appreciative, grateful, nice, good) with two things that she said or did in the story that support the description and illustrate her character.

Examples:
- She was brave to come out of her room and then put the magazine right under the crocodile's nose.
- She was a fast thinker because she thought if the crocodile had some food it might go away. She was smart. She figured that if the crocodile could appear from the magazine, the same could happen to the flamingos.

2 – Satisfactory Comprehension

The response provides at least one valid, appropriate description and only one supporting thing that she did.

Examples:
- She was clever because she made a plan to get rid of the crocodile.
- She was smart and brave because she put the magazine in front of the crocodile.
- Frightened. She was frozen to the spot.

</div>

11. You learn what Anina was like from the things she did. Describe what she was like and give two examples of what she did that show this.

<div style="background:#e8412f;color:white;padding:4px">

1 – Partial Comprehension

</div>

The response provides an appropriate description with a reason that is vague or general.

Examples:
- Anina was clever. She used the magazine.

Or, the response provides at least one appropriate description without a reason.

Examples:
- Anina was a fast thinker.
- She was clever and brave.

Or, the response provides at least one appropriate reason without a description.

Examples:
- Anina barricaded herself in her room. Anina pushed her bed against the door.
- She let the flamingos out of the magazine and she got the crocodile to go back to its home in the magazine.

<div style="background:#e8412f;color:white;padding:4px">

0 – No Comprehension

</div>

The response provides a description that is too vague to be considered appropriate without textual support.

Examples:
- Anina was sad that the flamingos were eaten.
- Anina was happy. (Note that happy and nice without further explanation is not acceptable)

Appendix A: PIRLS Literary Text Map

Figure A.1 Model – PIRLS Literary Text Map

Theme(s)

Readers may interpret the theme(s) of a passage from a relatively literal to a more abstract level. Thus, it sometimes is useful to identify what might be considered the main idea of the passage as distinct from the more abstract message or moral that might be learned.

Main Idea: This is a generalization of a concept, process, phenomenon, or position based on the text of the story.

Abstract: This is a translation beyond the story to the level of a message, moral, or lesson learned.

Plot

Summary: This is a short summary of the major focus or story events. The plot is the central story line. It describes the main problem or desired goal of the central character(s) and how the problem is resolved or the goal is achieved. For example, the plot summary could describe the essential problem/conflict/resolution or the need/action taken/outcome.

Structure: Notable features of the story structure may be noted here, such as flashback, satire, or a surprise ending.

Major Event or Episodes

This part of the map can be quite lengthy. It describes the sequence of actions, feelings, and thoughts portrayed in the story.

Major Characters

(listed with their traits and functions as appropriate)

Names	Traits	Functions

Setting(s)

This describes the physical location of the story. Also, if pertinent, the importance of the location of the story in relationship to the theme(s).

Key Expressions

This part of the map identifies two additional elements of the text that may be central to understanding – vocabulary and literary devices.

Vocabulary: The selection of vocabulary words or expressions should be based on the importance of the term to the large ideas in the text. If the meaning of the word or expression is important, consider including it. If it is not, do not use it.

Literary Devices: These should be elements the author uses to emphasize or reinforce important points or ideas in the story. Understanding these elements should assist the reader in understanding and interpreting the thematic focus of the text.

Sam Who Went to Sea

by Phyllis Root

Sam was a river rat who dreamed of the sea. At night he heard the wind in the cottonwoods and thought of waves breaking on a faraway shore.

By day he hummed sea chanteys as he tended his garden or mended the fence. Sometimes he would pause and stare away down the river, imagining the sea that lay beyond.

"Better get hammering," old Mr. Ropegnawer would say, passing by, "Fence looks a little rickety there."

Sam would smile and nod and whack at a nail or two. But soon he was listening again to the river whispering his name as it rippled by.

"Mind those dandelions," Mrs. Seednibbler warned, bustling past. "They're running wild."

Sam would tug at a handful of weeds, then turn again to watch the river.

One day an ad in the Riverside Gazette caught his eye. Sam scrimped and pinched until he'd saved enough money to send in an order. Each day he waited eagerly by the mailbox, until at last a package arrived. With trembling paws and pounding heart, Sam opened it.

The next morning, the citizens of Ratville were not following their usual morning pursuits. Instead, they were gathered by the riverbank to stare at something Sam was building.

"Funny-looking house," old Mr. Ropegnawer said at last.

"It's not a house," Sam mumbled through a mouthful of wooden pegs. "It's an ocean going sailboat. I sent away for the plans."

"Sam," said Mrs. Seednibbler, "ours is a little river, a rowboat-and-canoe river."

Sam spat the pegs out onto his paw. "All rivers lead to the sea," he said, his eyes green and misty in the sunlight.

"Why on earth would you want to go to sea?" demanded old Mr. Ropegnawer.

"It's in my blood," Sam replied.

"Spring fever, more likely," Mrs. Seednibble muttered. And she hurried off to the Dry Good Emporium to buy some yarn for a muffler she was knitting.

"As the days passed, Sam's boat continued to grow. He fitted the ribs to the keel and began to peg on the planking.

Old Mr. Ropegnawer stopped by on his way to the hardware store. "Must be better things to do with your time," he told Sam. "Wash your windows. Trim your hedge. Nail your house down so it won't blow away. Come to think of it, mine feels a little wobbly." And he hurried off to buy some nails.

Mrs. Seednibbler paused on her way to the Dry Goods Emporium. "Rats were not meant to go to sea," she warned. "We were meant to have our paws planted firmly on the ground."

"My great-great-great-great-great-great-great grandfather sailed the Seven Seas," Sam told her as he caulked the seams between the planks.

"Humph," snorted Mrs. Seednibbler, and she scurried off to buy some yarn for another muffler she was knitting.

Spring stretched into summer, and still Sam worked.

By autumn he was sewing canvas into sails, and his friends began to worry.

"Don't do it, Sam," they urged.

"You'll be eaten by a shark," warned Mrs. Seednibbler.

"You'll be attacked by wild seaweed," predicted old Mr. Ropegnawer.

Sam just stitched and smiled and hummed a sea song under his breath.

Winter came. Sam could be seen through the falling snow sanding the mast on his boat, his whiskers covered with sawdust and snowflakes.

By spring the boat was ready. Sam named it The Rat's Paw and loaded it with supplies. The other rats came down to see him off.

Mrs. Seednibbler gave him a muffler she'd knitted. "You'll catch your death of cold at sea," she warned.

Old Mr. Ropegnawer gave him some spare nails. "The mast looks a little wobbly," he advised.

"Thank you," Sam told his friends. "I'll think of you always." He hugged them all good-bye.

"Will you be back in time to rake your leaves?" asked old Mr. Ropegnawer. Sam only smiled and shrugged, then cast off.

"That's the last we'll see of Sam," his friends told each other with tears in their eyes. But in their hearts they hoped it wasn't true.

Days ran into weeks and weeks into months, and Sam did not return. Weeds hid the windows of his house. His chimney leaned. His gate rattled in the wind.

His friends gave up watching the river for the sight of his mast flying its bright, brave flag. Whenever they met each other hurrying to the First Rodent Bank or the Dry Goods Emporium, they would mournfully shake their heads.

"Poor Sam," his friends would say to each other. "Sam, who was eaten by a shark."

But Sam sailed on down the river and into the sea of his heart's desire. He felt the wind in his fur and the deck tilting under his paws. He sang as he sailed up the crests of waves. He laughed as the salt spray broke over his bow. At night he munched salt biscuit and cheese and was supremely happy.

"Dear friends," he wrote on a piece of paper, which he then sealed in a bottle, "please do not worry. I am happy. Love, Sam." Tossing the bottle into the waves, Sam headed seaward and sailed on and on over the wild green sea.

from *Cricket, The Magazine for Children*
March 2003

Figure A.3 Example Text Map For Literary Model: Sam Who Went to Sea

Theme

Main Idea: With determination and hard work, we can achieve our dreams. It is our dreams that inspire us to work hard and to accomplish our goals.

Plot

Summary: A river rat named Sam is distracted from his chores by his dreams of going to sea. His neighbors chide him for not fixing his fence or tending to his garden, but as he looks at and listens to the river he is constantly reminded that it leads to the sea. He sends away for plans to build his own boat and works hard, from one spring to the next, to finish it. The other rats tell him that river rats are not meant to go to sea and they warn him of the many dangers he will face; but

in the spring when his boat is finished, the other rats bring presents and see Sam off as he sets sail to sea. The other rats watch the river in vain for his return and mourn what they assume to be his demise. But Sam is sailing happily on the sea of his dreams. He sends them a message in a bottle telling them not to worry, that he is happy sailing on and on over the wild green sea.

Major Events or Episodes

- Sam dreams of the sea as he mends his garden fence.

- Mr. Ropegnawer and Mrs. Seednibbler badger Sam to fix his fence and weed his garden.

- Sam sees an ad in a newspaper and saves money to buy the plans for building a boat.

- As Sam works hard at building the boat, his neighbors tell him that the river is too small for a boat and they question why he would want to go to sea.

- Sam responds that the sea is in his blood and that all rivers lead to the sea.

- Mrs. Seednibbler tells Sam that rats were meant to have their paws planted firmly on the ground.

- Sam responds that his ancestor sailed on the Mayflower.

- Sam's friends issue dire warnings: Sam will be eaten by a shark or attacked by seaweed.

- Sam just smiles and continues to work on the boat through the winter.

- In the spring, the boat is ready and Sam bids farewell to his friends. They accept that he is going and offer him gifts, and ask whether he will be back in time to rake his leaves.

- Sam's friends tearfully wonder if he will ever return.

- Eventually, they give up watching the river for Sam to return. They assume he has been eaten by a shark.

- Sam sails out to sea, happy and singing. He writes his friends a note telling his friends not to worry and that he is very happy. He puts the note in a bottle and then throws it into the waves and continues sailing out to sea.

Major Characters

Sam	Traits
	• dreamy/imaginative
	• determined
	• independent
	• resourceful
	• capable
	• self-reliant
	• courageous
	• happy
	Function
	central character: shows the power of imagination and self-determination involved in following and accomplishing one's dream
Mr. Ropegnawer Mrs. Seednibbler & River rat neighbors	Traits
	• conventional
	• predictable
	• cautious
	• industrious
	• perplexed/puzzled
	• worried
	• caring
	Function
	show the desire for safety and routine, the inability to understand someone else's dream that is different from the norm, and acceptance of what they cannot understand

Setting

Set in a riverside community. The river sets up main character's motivation, since it leads to the sea.

Key Expressions

Vocabulary:

- rickety
- scrimped
- muffler
- mournfully
- crests
- supremely

Appendix B: PIRLS Informational Text Maps

Figure B.1: Descriptive Model – PIRLS Informational Text Map
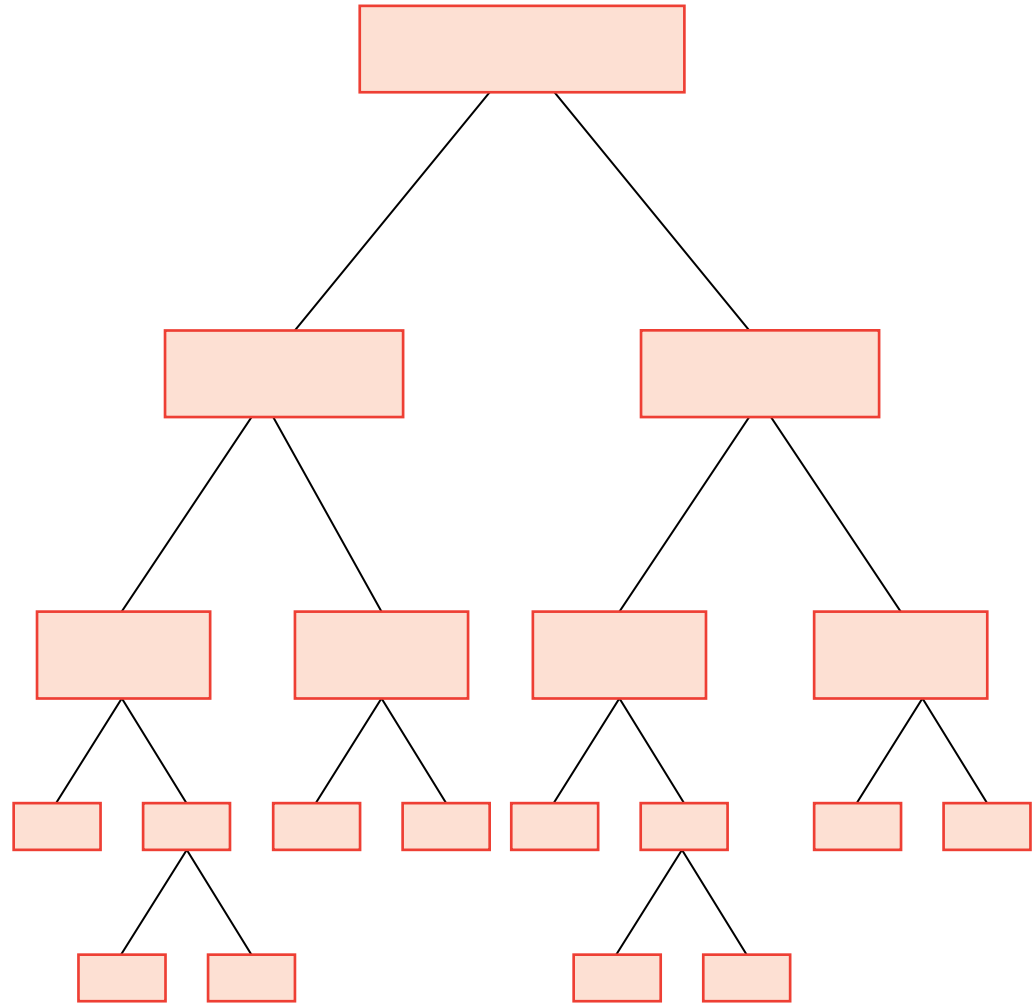
Figure B.2: Example Text Map for Descriptive Model

Cultures and Families

```
                    the way of life of a
                    group of people
                    /                    \
           cultures are alike          cultures are different
           /      |      \             /      |      |      \
      learned  shared  a plan    educational  legal   foods prepared
                       for living  systems   systems  and eaten
                                 |
                            family groups
              transmit culture /        \
                         nuclear        extended
                         family         family
                        /      \        /        \
          Children leave    Found    Two or more    Found in
          household when    in many  sets of parents developing
          they reach        developed and children   countries
          adulthood         countries in the same    /        \
                   |                  household  Becomes less  Provides labor
              Found in                           common with   for subsistence
              society of                         industrialization farming
              hunters and
              gatherers
```

Main Ideas: Because flash floods cause damage and loss of life, it is important to plan for flash floods and learn how to watch for them. The National Weather Service provides important information about flash floods.

Graphic Aids: None

Figure B.3: Thematic Model – PIRLS Informational Text Map
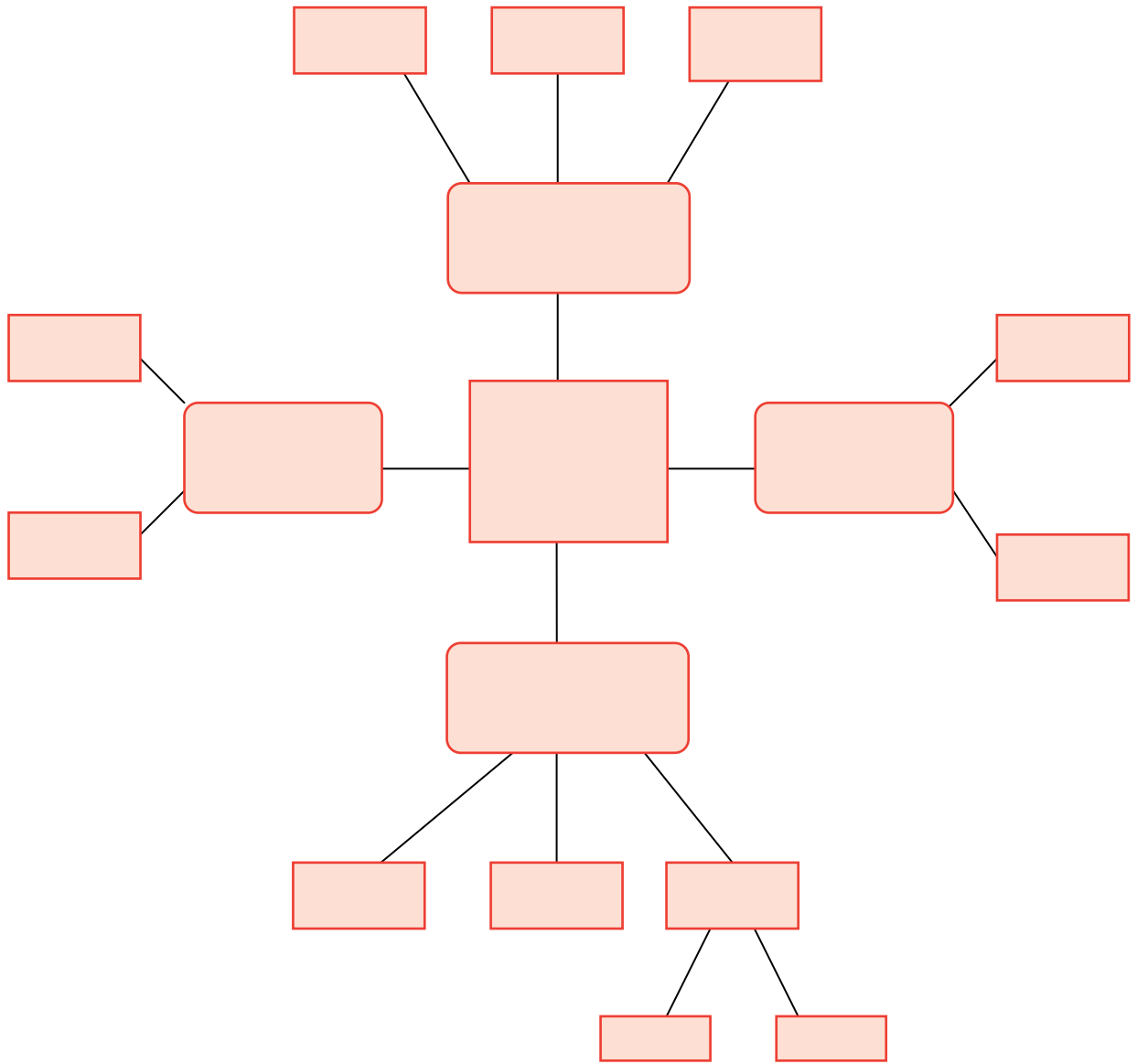
Figure B.4: Example of Text Map for Thematic Model

Drainage systems overflow

Flood waters carry uprooted trees, boulders, and mud

Hurricane Agnes caused 122 deaths in U.S.

Each year floods exact a toll on human lives

Rapid City flood

Life and death situations

Flash Floods

Improved flash flood warning system

Understand the dangers of flash floods

Watch for sudden downpours

Protect life and property

National Weather Service

Plan for flash floods

Time is important

Flash flood watch

Know your elevation

Listen to the radio

Watch for signs of distant rainfall

Be prepared to move quickly

Figure B.5: Problem/Solution or Cause/Effect Model – PIRLS Informational Text Map

Beginning:

Caused

Caused

Caused

Event:

Event:

Event:

End:
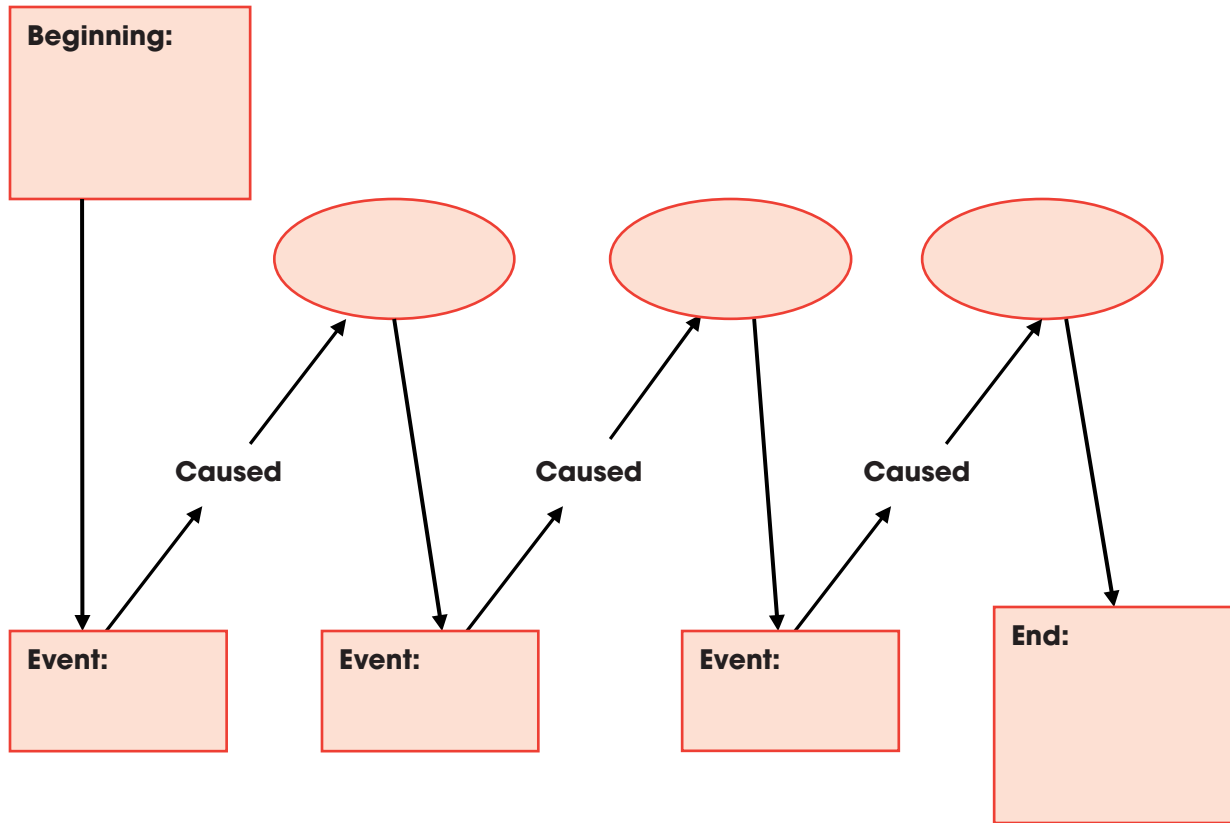
Figure B.6: Example Text Map for Cause/Effect Model

Beginning:
Different kinds of ferns lived in shaded forest

Lack of shade for ferns so most began to wilt and die

More spores from ferns that lose less water

Caused

Caused

Event:
Trees were cut down

Event:
Ferns that lose less water in sunlight tended to survive

End:
Population made up of ferns that survive in direct sunlight
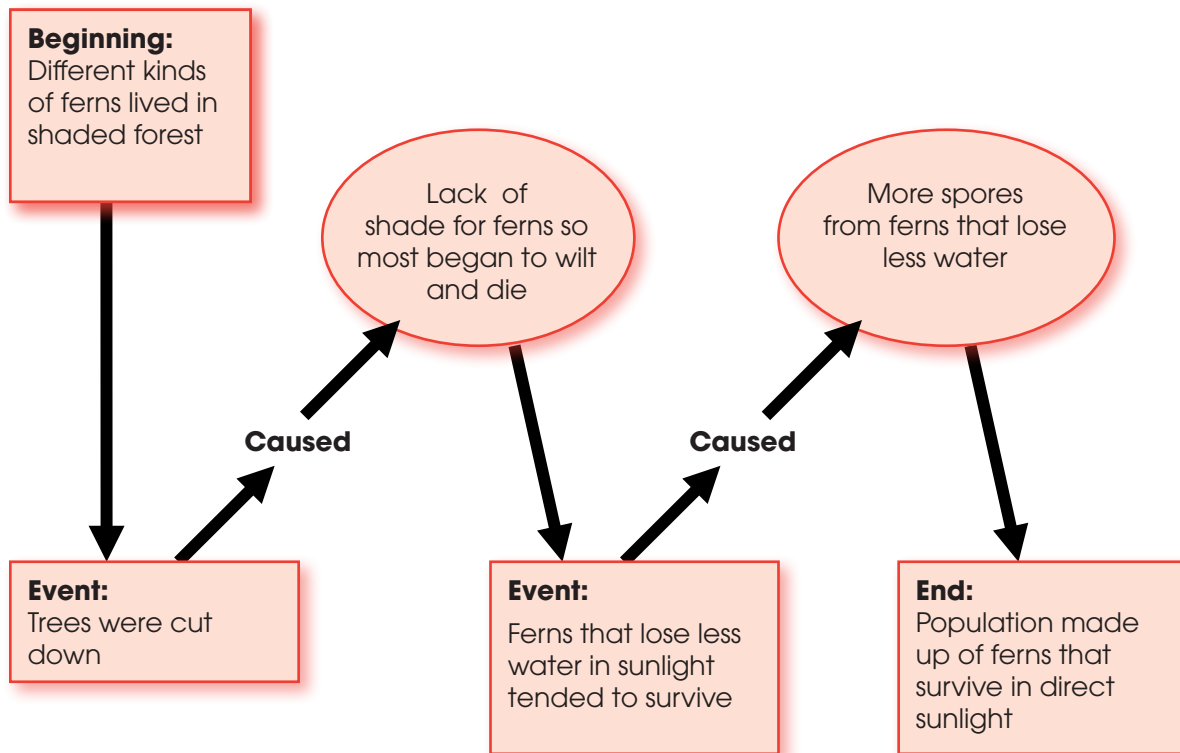
Figure B.7: Sequential Episode Model – PIRLS Informational Text Map
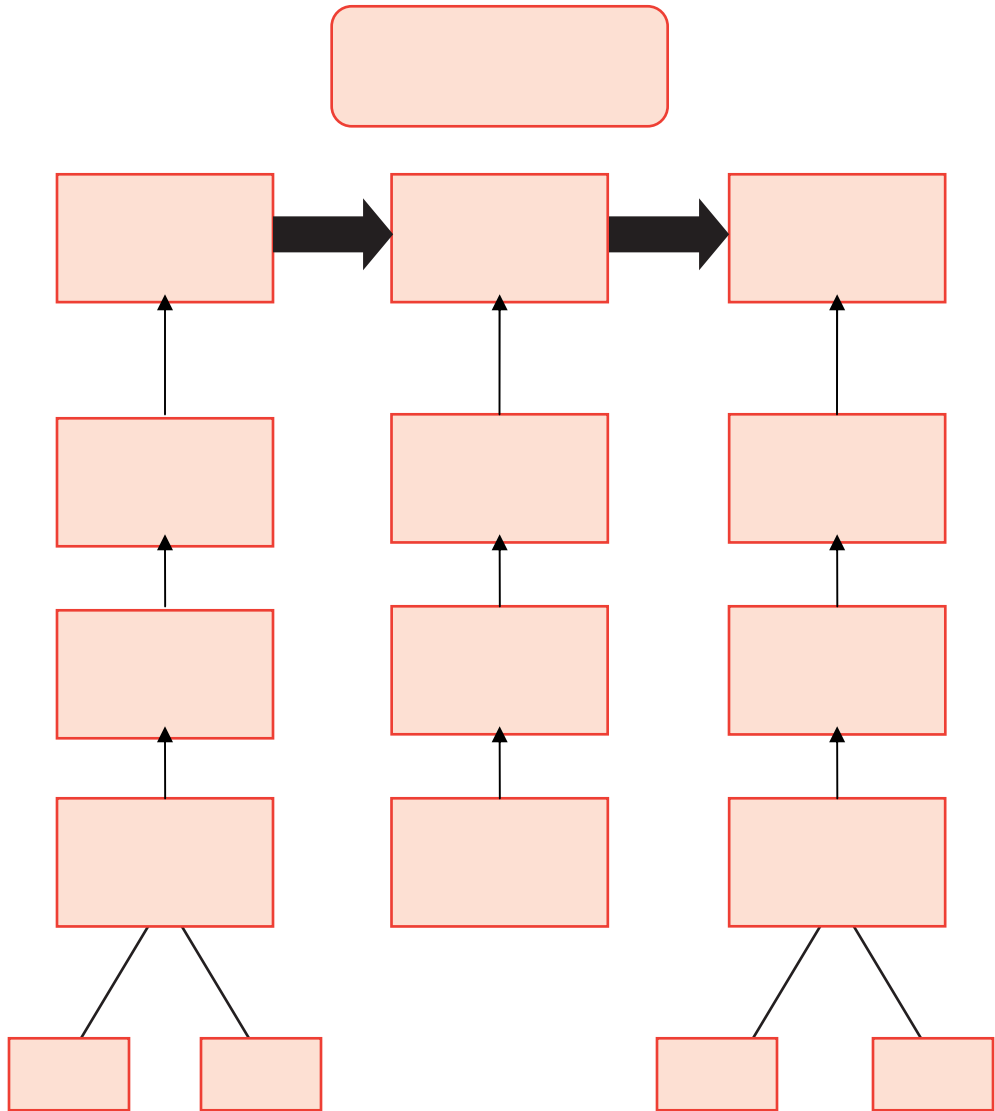
Figure B.8: Example Text Map for Sequential Episode Model

```
                        ┌──────────────────┐
                        │  Launch Morning  │
                        └──────────────────┘

┌──────────────┐      ┌──────────────┐      ┌──────────────┐
│ Launch minus │ ───▶ │ Launch minus │ ───▶ │ Blast off    │
│ 1 hour       │      │ 10 seconds   │      │ launch pad   │
└──────────────┘      └──────────────┘      └──────────────┘
       ▲                     ▲                     ▲
┌──────────────┐      ┌──────────────┐      ┌──────────────┐
│ Get in       │      │ Engines move │      │ Rockets fire │
│ shuttle and  │      │ into position│      │              │
│ prepare for  │      │              │      │              │
│ launch       │      │              │      │              │
└──────────────┘      └──────────────┘      └──────────────┘
       ▲                     ▲                     ▲
┌──────────────┐      ┌──────────────┐      ┌──────────────┐
│ Go to launch │      │ Hatch closed │      │ Computer     │
│ pad and      │      │              │      │ takes over   │
│ shuttle      │      │              │      │              │
└──────────────┘      └──────────────┘      └──────────────┘
       ▲                     ▲                     ▲
┌──────────────┐      ┌──────────────┐      ┌──────────────┐
│ Get ready    │      │ Check out    │      │ Launch       │
│              │      │ equipment    │      │ engines light│
└──────────────┘      └──────────────┘      └──────────────┘
                       /            \
              ┌──────────────┐  ┌──────────────┐
              │ Helmet and   │  │ radio        │
              │ oxygen       │  │              │
              └──────────────┘  └──────────────┘
```
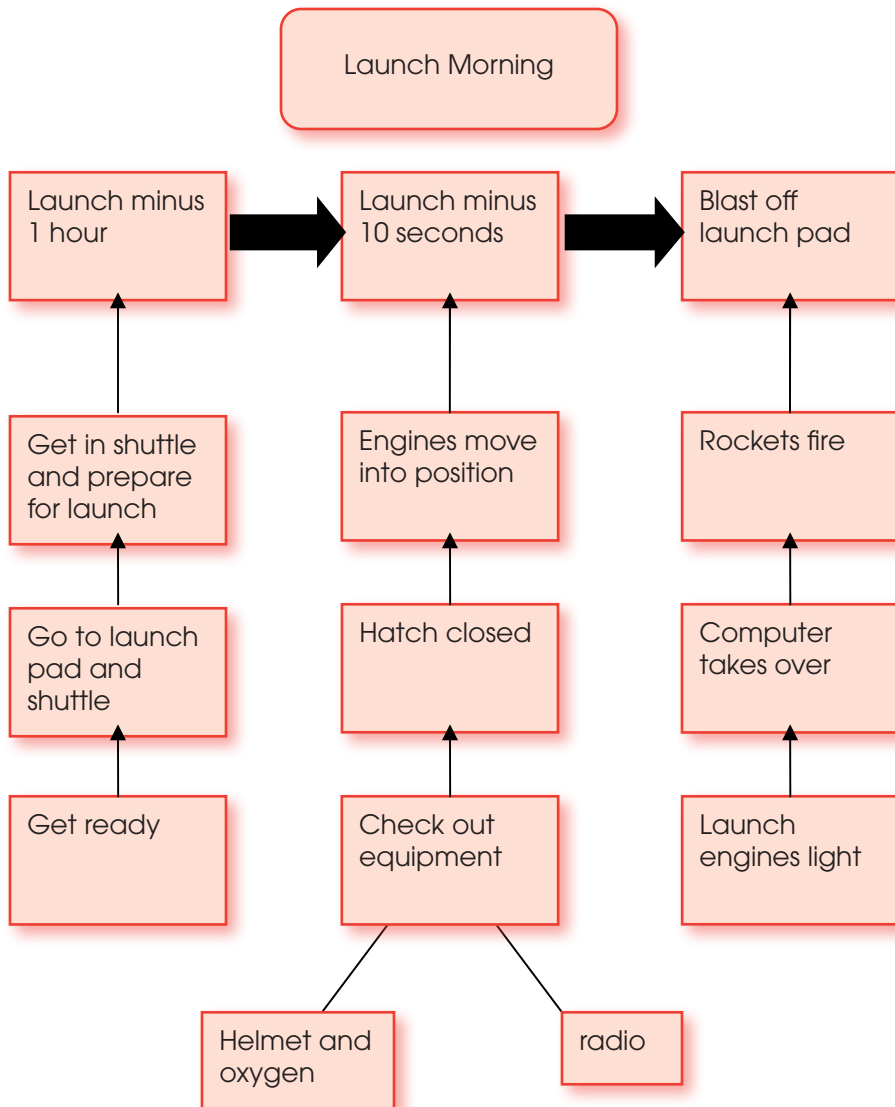
Main Ideas: Steps involved to launch space shuttle

Graphic Aids: Diagram of space shuttle

Figure B.9: Compare/Contrast Model – PIRLS Informational Text Map

FEATURES

Figure B.10: Example Text Map for Compare/Contrast Model

```
                    ┌─────────────────────┐
                    │      Weather        │
                    │ Cool and Warm Fronts│
                    └─────────────────────┘
                      /                 \
          ┌──────────────┐        ┌──────────────┐
          │ Cold Fronts  │        │ Warm Fronts  │
          └──────────────┘        └──────────────┘
                │                        │
                       FEATURES
                │                        │
    ┌──────────────┐  ┌──────────────┐  ┌──────────────┐
    │ Cold, dense, │──│ Types of air │──│ Warm, moist, │
    │ dry air      │  │ mass         │  │ light air    │
    └──────────────┘  └──────────────┘  └──────────────┘
                │                        │
    ┌──────────────────┐ ┌──────────┐ ┌──────────────────┐
    │ Moves rapidly and│ │ Movement │ │ Moves slowly and │
    │ close to the     │─│          │─│ not close to the │
    │ ground: pushes up│ │          │ │ ground: slides   │
    │ warm air         │ │          │ │ over cooler air  │
    └──────────────────┘ └──────────┘ └──────────────────┘
                │                        │
    ┌──────────────────┐ ┌──────────────┐ ┌──────────────┐
    │ Thick, dense     │ │ Type of      │ │ High, thin   │
    │ clouds: cumulus  │─│ clouds       │─│ clouds:      │
    │ or cumulonimbus  │ │              │ │ stratus      │
    └──────────────────┘ └──────────────┘ └──────────────┘
                │                        │
    ┌──────────────┐ ┌──────────────┐ ┌──────────────┐
    │ Rain or snow │ │ Type of      │ │ Fog and rain │
    │              │─│ weather      │─│              │
    │              │ │ produced     │ │              │
    └──────────────┘ └──────────────┘ └──────────────┘
```
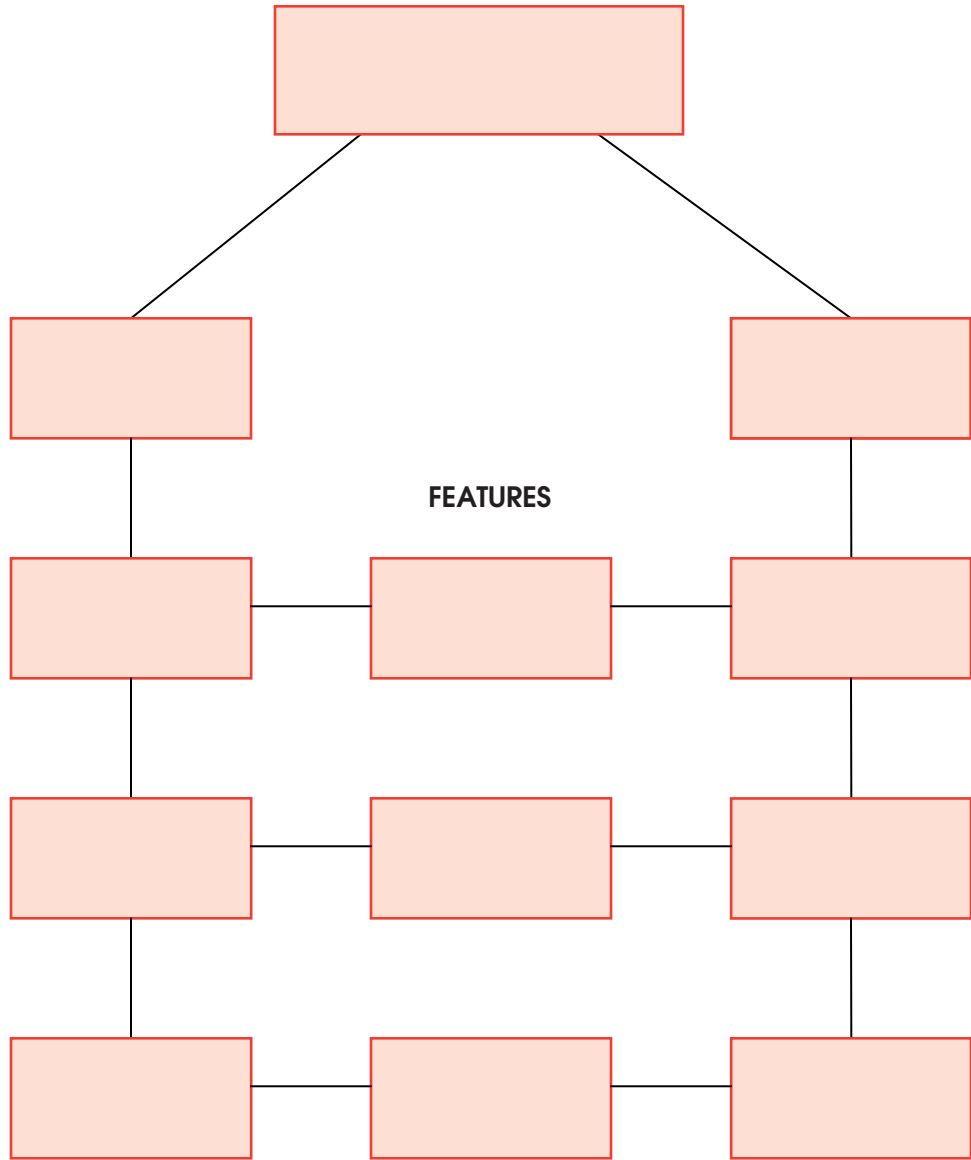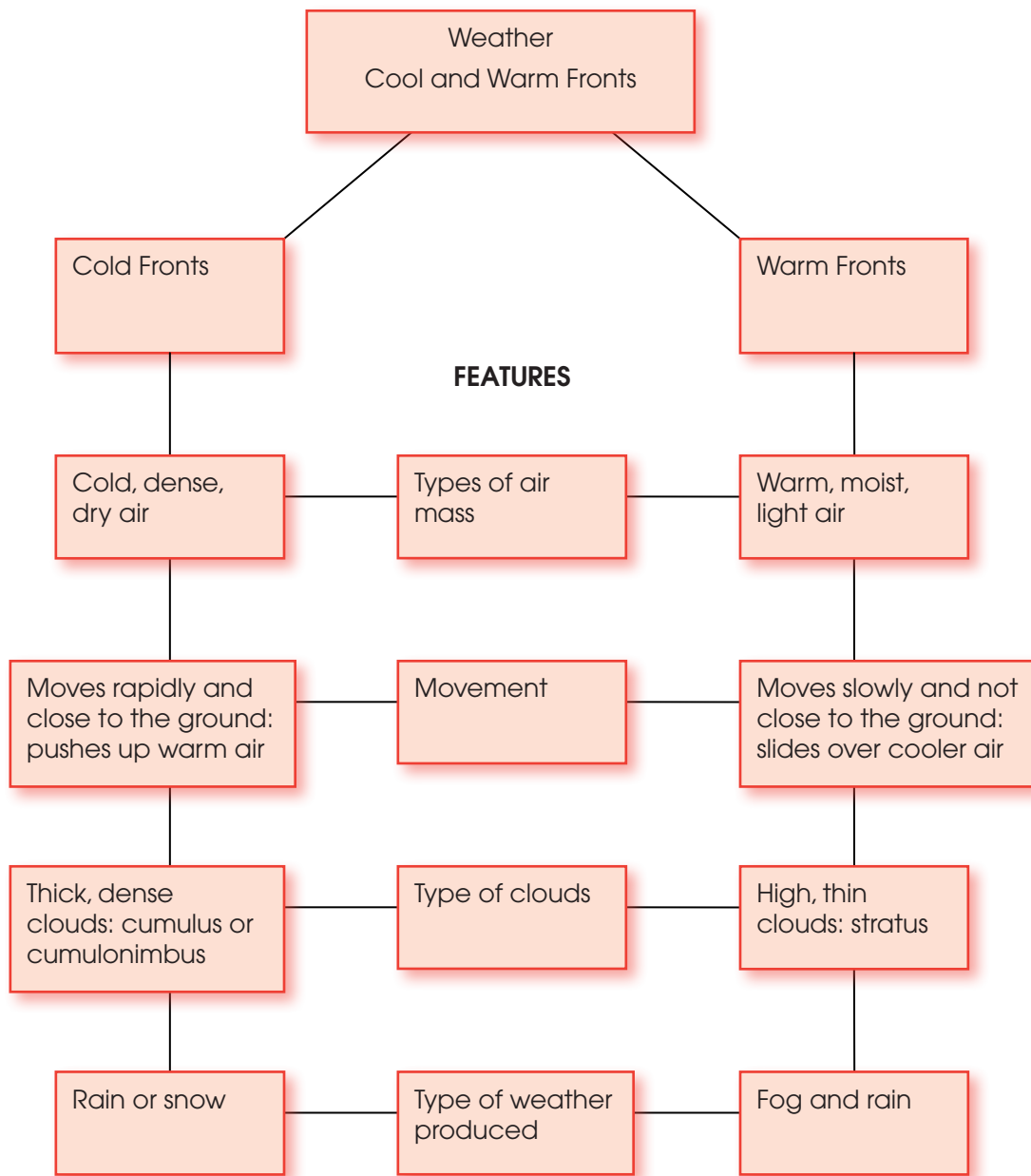
Main Ideas: Cool and warm fronts produce different types of bad weather.

Graphic Aids: Pictures of types of clouds