

Science IDEAS

Knowledge-Focused

Reading Comprehension Routine

The Science IDEAS Reading Comprehension Routine is a knowledge-based strategy designed to continually relate what is being read to *a student's prior knowledge on the topic* and to *what has been read up to that point in the passage*. This is something that expert readers do automatically. The purpose of the Science IDEAS Reading Comprehension Routine is to guide students to approach reading as expert readers do, thus enhancing their comprehension of what is being read.

The Routine consists of two steps – **Teacher Preparation** and **Use with Students**.

Step 1: Teacher Preparation to Apply the Science IDEAS Reading Comprehension Routine

Teacher preparation consists of the teacher developing **knowledge notes** and **knowledge-focused questions** relevant to student comprehension of the passage.

To do this, first the teacher reads the whole passage (including headings, subheadings, text pictures, illustrations, and graphics) to orient him/herself to the passage.

Then, the teacher returns to the beginning of the passage and works through the passage, line-by-line and sentence-by-sentence, making notes to answer the following questions:

1. What do the students already know about the topic (prior general/prior curricular knowledge) that might serve as an introduction or connection to the reading?
2. What do I need to do to convey the key concept(s) as we read and discuss the passage as a class?
3. What are the key words and phrases that warrant further elaboration?
4. Is there an activity, demonstration, example, or question that, when used prior to or during the reading, would support subsequent comprehension?

From these notes, the teacher generates questions that are connected to the specific points in the reading when they will be best used to enhance student reading comprehension.

Step 2: Using the Science IDEAS Reading Comprehension Routine with Students

First reading of the passage:

Prior to reading the passage together as a group, the teacher:

1. selects a student to read the heading and subheadings and then uses the previously developed questions to access student prior knowledge.
2. asks students to identify the concepts they have been learning that will relate to this new reading (relevant prior curricular knowledge)

Upon reading the passage together, the teacher:

3. selects a student to read the first couple of sentences aloud (Note: develop student reading fluency by having student re-read sentence until fluent, modeling fluency as necessary)
4. uses the questions developed during teacher preparation to guide discussion of what is being read by:
 - a. discussing ideas in each sentence
 - b. connecting ideas from one sentence to the next
 - c. having students paraphrase or explain in their own words what has just been read
5. uses this same strategy, including working on fluency, until every sentence in the paragraph has been read and discussed
6. asks students to summarize the paragraph and identify the main idea and supporting details.
7. The teacher continues this same procedure for the rest of the passage by:
 - a. discussing sentences line by line
 - b. connecting sentences together
 - c. relating sentences to those that have been previously read
 - d. relating sentences to relevant prior knowledge.
 - e. summarizing each paragraph and identifying the main idea and supporting details.
 - f. relating each paragraph to those previously read

Upon completion of the passage, the teacher

8. selects a student or students to summarize the complete passage using previously generated paragraph summaries

Second and Subsequent Re-Readings of the Passage:

On re-readings, the teacher:

1. selects different students to read
2. asks students to relate what they are reading to their relevant prior curricular knowledge and to what they remember from the prior reading, discussion, and summarization of the passage

3. has students paraphrase or explain in their own words what they are currently reading
4. has students summarize the complete passage

Note: In re-reading, students can relate what they are reading to the “content” in later passages they have read previously.