

Graphic Organizers Bring About Good Science Read/Writing

Summary

This activity emphasizes the importance of teaching reading and writing strategies for students to use with informational text.

Main Core Tie

English Language Arts Grade 6

[Writing Standard 9](#)

Additional Core Ties

English Language Arts Grade 6

[Writing Standard 4](#)

English Language Arts Grade 6

[Writing Standard 5](#)

English Language Arts Grade 7

[Reading: Informational Text Standard 2](#)

English Language Arts Grade 7

[Reading: Informational Text Standard 3](#)

English Language Arts Grade 7

[Reading: Informational Text Standard 5](#)

English Language Arts Grade 7

[Reading: Informational Text Standard 8](#)

English Language Arts Grade 7

[Reading: Informational Text Standard 10](#)

English Language Arts Grade 8

[Reading: Informational Text Standard 2](#)

English Language Arts Grade 8

[Reading: Informational Text Standard 3](#)

English Language Arts Grade 8

[Reading: Informational Text Standard 8](#)

Group Size

Individual

Materials

Pens/pencils

Informational text readings from Internet or newspapers

Science classroom textbook

Variety of trade books and informational text

- [Graphic Organizer Samples](#)

Posters of the *Graphic Organizer Samples*

Background for Teachers

A student who has been taught reading and writing together has the necessary tools to explore, clarify and think deeply about the ideas and concepts they encounter in reading. There is no better way to think about a subject than to take the opportunity to read and write about it. Teachers who use

reading and writing together help students think about what they will read, and understand what they have read. Teachers should plan instruction that leads to active text learning. Students need to act on ideas in print and also interact with one another when learning with text. This instruction model provides ideas for pre-reading, reading, and post-reading instruction for Core Curriculum text lessons. The use of graphic organizers provides the structure for bringing learners and texts together using multiple texts.

In planning a unit, the teacher should construct a graphic organizer of the major concepts, and then identify literature for group and individual investigation. Before actually assigning a graphic organizer to students, the teacher should prepare for the activity by carefully analyzing the vocabulary of the material to be learned. List all the terms that are essential for students to understand. Finally, construct your own organizer.

Graphic organizers are easily adapted to learning situations in the elementary grades. For whole class discussion, construct your graphic organizer on a large sheet of chart paper or on your chalk/white board.

Ultimately, the student should learn how to create and use different types of graphic organizers to understand, interpret, and analyze informational text. The form of the student-constructed graphic organizer will undoubtedly be different than the teacher's arrangement. However, this difference should not be a major source of concern.

Graphic Organizer Samples

- Venn Diagram (compare/contrast)

- Problem/Solution

- Hierarchy (listing)

- Time Line (time)

- Cluster Diagram (description, order of importance)

- Flow Chart (cause/effect, problem/solution)

Teaching Graphic Organizers

- Model the use of graphic organizers.

- Provide opportunities for guided practice.

- Provide opportunities for independent practice.

Graphic organizers encourage students to make connections with the text by creating a structure for students to explore text and consider different sides of an issue in discussion before drawing conclusions.

- Prepare your students for reading by activating prior knowledge, raising questions, and making predictions about the text.

- Assign students to read the selection, then introduce the graphic organizer. Have the students work in pairs to generate a completed graphic organizer.

- Combine pairs into groups of four to compare responses, work together toward consensus, and reach a conclusion as a group.

- Give each group three minutes to decide which of all the reasons given best supports the group's conclusion.

- Have your students follow up the whole class discussion by individually writing their responses on the graphic organizer (not necessary every time).

Intended Learning Outcomes

1. Use Science Process and Thinking Skills

4. Communicate Effectively Using Science Language and Reasoning

Instructional Procedures

Invitation to Learn

Use this approach to activate prior knowledge, raise questions, or make predictions about the text. Ask, "How many different things do you know about the chosen topic to be studied?" Brainstorm ideas, vocabulary words, or major concepts about a given topic. As the students suggest different ideas, create a graphic organizer on the board. Let students make the connections that they understand. Later, after reading text, doing an experiment, or hands-on activity, the students can make any necessary changes to the class-generated graphic organizer.

Instructional Procedures

Constructing the Graphic Organizers as a Pre-assessment (Whole Group Participation)

List all the vocabulary words/word phrases/pictures that students give about the content area topic.

Arrange the list of words until there is a scheme that shows the connections among the concepts particular to the learning task.

Evaluate the organizer. Ask, "Can the organizer be simplified and still effectively communicate the ideas you consider crucial?"

Introduce students to a previously determined section of the text to read. Allow them to compare and evaluate their own understanding according to their reading. Experiments and hands-on activities for connections to learning may also be used.

After reading, discuss as a class any additional information learned that may be added to the graphic organizer.

Modeling for the Students How to Make Their Own Connections (Small Group Participation)

Type the keywords/word phrases/pictures and make copies for the students to use.

Have students form small groups of three to four students each.

Distribute the list of terms, pictures, major concepts, and chart paper to each group.

Have them work together to decide on a spatial arrangement of the words that depicts the connections between the words.

As students work, offer assistance as needed.

Provide reading text to increase content area information.

Initiate a discussion of the constructed organizer.

Allowing the Students to Use a Teacher-created Graphic Organizer (Individual Participation)

Prepare the organizer with a schema that shows the interrelationships among the concepts particular to the learning task.

Provide a blank graphic organizer with some connections made, the remaining will be completed by the student.

Provide a reading passage that furnishes information with key concepts for students to locate and add to the graphic organizer.

As students add specific information/vocabulary words to the graphic organizer, create as much discussion as possible.

Activity

Model a graphic organizer that can be used with Core Curriculum content.

Using trade books, textbooks, or other content area readings, have the student transfer identified information onto a graphic organizer.

Teachers should scaffold every graphic organizer many times to prepare students to create their own graphic organizer.

Scaffolding also applies to the writing assignments. Students need to be taught how to write a summary, a compare and contrast paper, a description paper, and a question and answer paper. Ability to complete a graphic organizer does not indicate that the student knows how to accomplish the writing task.

Students should engage in a writing activity after each text reading and completion of a graphic organizer.

Extensions

Create a graphic organizer with your class according to the content of your texts:

Moon Cycle = Time Sequencing

Solar System = Compare/Contrast

Microorganism = Cause/Effect

Heat, Light, Sound = Problem/Solution

Planets in our Universe = Listing

Convert graphic organizers into writing assignments.

Teach the students to use other graphic organizers while reading nonfiction trade books. Graphic organizers should be taught one at a time. Use different graphic organizers before, during, and after any hands-on group activity, experiment, or when reading informational text. Use graphic organizers when viewing informational videos to engage the students in listening and comprehending science concepts.

Assessment Plan

Construct a graphic organizer as an assessment. Give the students a blank graphic organizer to complete using a given list of vocabulary words, pictures, or description word phrases.

Have students use the graphic organizer to write an expository paper reflecting what they learned.

Authors

[Utah LessonPlans](#)

[brooke rauson](#)