This spider unit focuses on students' development of cooperative learning and inquiry-based skills. Students read "The Very Busy Spider" by Eric Carle, and then work in cooperative groups using the Internet to research and synthesize important information about spiders. Technology is used for vocabulary instruction and to create a multimedia presentation. During six 30-minute lessons, students will: listen and read critically; use the KWL (know-want to know-learned) strategy; analyze and synthesize the information that they read; write using reflections of written text; learn vocabulary related to spiders; create and present a multimedia presentation; and work cooperatively in groups. The instructional plan, lists of resources, student assessment/reflection activities, and a list of National Council of Teachers of English/International Reading Association (NCTE/IRA) Standards addressed in the lesson are included. A scoring guide is attached. (PM)
Did You Say Spiders?

Author
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Grade Band
3-5

Estimated Lesson Time
Six 30-minute sessions

Overview
Young learners have a natural curiosity about their environment. They are very inquisitive and eager to learn about the world around them. This lesson supports students’ natural curiosity about spiders and builds upon their prior knowledge. Students work cooperatively using response journals and technology to inquire into the world of spiders, gather information about various types of spiders, and create a multimedia project about one particular type of spider. Extension activities include creating a vivarium and writing to Eric Carle to learn more about the books he has written. Beginning readers will need more assistance in completing this unit.

From Theory to Practice

- Coupling literacy activities in the context of something meaningful and interesting to students increases the chance of successful learning.
- When students use technology to access information, analyze it, interpret it, and represent it in a new way, the computer becomes a conduit for the construction of knowledge.
- Technologies motivate and maintain student interest, provide unique sources and types of information, and afford opportunities for extending the nature of students’ reading and writing processes into multimedia composition and comprehension.

Student Objectives
Students will

- Listen and read critically
- Use the KWL strategy
- Analyze and synthesize the information that they read
- Write using reflections of written text
- Learn vocabulary related to spiders
- Create and present a multimedia presentation
• Work cooperatively in groups

Resources

• Scoring Guide
• TrackStar
• A Guide to Missouri Spiders
• Spiders at Enchanted Learning
• Southwest Educational Development Laboratory: Teacher Background Information
• Graphic Organizer Makers
• The Very Busy Spider by Eric Carle
• Chalkboard, chart paper, or overhead transparency and projector
• Computers with Internet access
• Excel
• PowerPoint or HyperStudio
• Student response journal

Instructional Plan

Preparation

1. This lesson assumes that students are already familiar with the technology tools used in the lesson and that the technology tools are already installed on the computers that students will access.

2. Schedule time for all students to have access to a computer during the lesson, either in a lab setting, mobile unit, or by borrowing computers from other classrooms.

3. Create student folders and place them on the computer's hard drive or within your folder on the school's network.

4. Obtain a big book copy of The Very Busy Spider by Eric Carle or enough copies of the book for students to share in small groups. Make sure that you have access to a chalkboard, chart paper, or overhead transparencies and a projector.

5. Compile the Internet links to be used during the lesson by either creating a webpage of links or bookmarking the websites on the computers students will access. TrackStar is an excellent online resource that enables you to quickly create a webpage of Internet links. The following links will be used during this unit:

   • Graphic Organizer Makers: KWL Generator
     This site provides a template for creating a KWL chart.

   • Graphic Organizer Makers: Concept Web Generator
     This site provides a template for creating a concept web.
Spiders at Enchanted Learning
This site is a database of different activities for learning about spiders.

Spider Shape Book Printouts
This site provides an opportunity for students to print a book of spider facts.

Spider Anatomy Diagram Printout
Students can print the diagram and add labels to indicate the spider's parts. An Answer Key is available for students' to check their answers.

A Guide to Missouri Spiders
This site provides descriptions and images of various spiders that live in Missouri.

6. Read the Teacher Background Information to become familiar with some background information about spiders.

7. Assign three or four students to work together in a Literature Response Group during the lesson.

8. Make sure that each student has a notebook to use as a response journal.

Instruction and Activities

Before reading

1. Introduce the book The Very Busy Spider by Eric Carle. Ask students
   - What do you think this book is about?
   - Why do you think that?

   Write students' response on the chalkboard, chart paper, or overhead transparency.

2. Have students access the website Graphic Organizer Makers: KWL Generator to begin creating a KWL chart for spiders. Students are instructed to complete the K (What I Know) and W (What I Want to Know) sections of the chart only. The L (What I Learned) section will be completed at the end of the unit. Students should save their work, using the filename lastname_spider. For instance, if the student's last name is Jones, he will save his KWL chart as Jones_spider. Remind students to print a copy of their KWL chart when finished.

3. Discuss what students know about spiders and what they want to learn. Record their responses in two columns on the chalkboard, chart paper, or overhead transparency. The first column reflects what students know about spiders and the second column reflects what they want to learn.

During reading

1. Begin reading the story The Very Busy Spider by Eric Carle. Stop after each animal and ask students what the animal wants the spider to do. For reinforcement of comprehension, discuss what each previous animal wanted the spider to do as well.

2. Draw attention to the fly in each picture. Pose the question, "What is the importance of the fly and why?" Gather students into their Literature Response Groups to discuss this question, come up with at least one answer, and an explanation. Allow five to ten minutes for group discussion, and then discuss students' responses as a whole class.

3. Continue reading The Very Busy Spider, pointing out the fly in each picture. Pay attention to how
much of the web the spider has completed on each page. About three-fourths of the way through the story, stop again, and ask students, "What is the significance of the fly? Why do you think that?" Gather students into their Literature Response Groups again to discuss whether their answer to this question has changed and why. Discuss students' responses again as a whole class.

4. Finish reading the book and give each student the opportunity to feel the spider's web at the end of the story. Ask them to use their response journals to respond to the statement, "My thoughts about the importance of the fly were correct or incorrect. I felt the fly was important because . . ."

5. As a whole group, create a concept map of *The Very Busy Spider* using the website Graphic Organizer Makers: Concept Web Generator. If whole-class access to a computer is difficult, you can draw a concept map on the chalkboard, chart paper, or overhead transparency.

**After reading**

1. Introduce the following vocabulary:

- **arachnids**—the class of animals spiders belong to; arachnids are animals that have an exoskeleton, a two-part segmented body, and eight jointed legs; they are cold-blooded and do not have a backbone

- **abdomen**—one section of the spider's body; the abdomen contains the guts, heart, silk glands, and reproductive glands

- **cephalothorax**—one section of the spider's body; the cephalothorax contains the legs, eyes, and mouthparts

- **pedicel**—the spider's waist, which connects the cephalothorax and the abdomen

- **pedipalps**—two sensory feelers that look like very short legs; also called palps

- **spinnerets**—where the spider's silk is located

Have students practice the vocabulary words by typing the words and definitions in Excel. Type the words in Column A, skip Column B, and type the definitions in Column C. Fix the column widths so that all the words and definitions appear in one column. Highlight all of Column C by clicking on the C. Choose Data > Sort > click the arrow by Sort by and choose Column C (if necessary). Click Ascending, then OK. Check to be certain that the definitions moved into different positions. Print the Excel sheet and exchange it with a classmate to match the words to the definitions. For variety, have some students sort Column C by descending order.

2. Have each student access the Spider Shape Book Printouts. Print each page of the book (cover page, spider in a web, black widow spider, tarantula, spider facts, and spider questions), read the spider facts, and answer the spider questions. Cut out each circle and assemble the pages into a book. Students can then write in their response journals why learning about spiders is important.

3. Print and duplicate a copy of the Spider Anatomy Diagram Printout for students to complete in their groups. On the diagram, students work together to label the spider's parts. When they have completed their work, instruct them to go online and check their Answers.

4. Still working in groups, have students access the website A Guide to Missouri Spiders. Students can follow along as you read aloud information about each spider. After reading about the various spiders, each group should choose their favorite spider and reread the information about that spider, paying close attention to its characteristics, habitat, and survival.

5. As a final project, students create a multimedia project using PowerPoint or HyperStudio to present
five to ten interesting details about one particular type of spider. Working in cooperative groups, students may decide to choose their favorite spider from STEP 4 or any spider that interests them. Project specifications include:

- Five to seven slides including a title slide with the spider's name (picture is optional), a slide listing the names of all members in the group, two slides outlining five to ten interesting facts about the spider, and one slide explaining the reason why they chose that spider.

- The style, size, and color of the font should be easy to read (at least 48-point type).

- The background color should enhance the presentation.

- Transitions and animations are optional.

Students should be encouraged to use the Web resources in this lesson to gather interesting facts for their presentation. All members should share in presenting the slide show to the class.

6. Have each student open the KWL chart that was saved as lastname_spider. Complete the L section of the chart (What I Learned), save it again, and print.

Extensions

- Students create a vivarium as detailed in the Creating a Spider Vivarium handout.

- Students visit the Eric Carle website to read about his life and find answers to frequently asked questions. Ask each student to write a question that does not already appear on the website. Choose a few good questions from the class and submit them to the author using the Eric Carle Guestbook.

- Access the Caterpillar Exchange, which is a bulletin board where teachers and parents share their ideas for using Eric Carle's books in creative ways. You can submit your own ideas for this site or allow students to vote on which activity they would like to do.

- The Southwest Educational Development Laboratory: Lesson Focus offers additional lessons and activities related to spiders.

Student Assessment/Reflections

Use the Scoring Guide to allow students' to assess their involvement and participation throughout this unit.

IRA/NCTE Standards

1 - Students read a wide range of print and nonprint texts to build an understanding of texts, of themselves, and of the cultures of the United States and the world; to acquire new information; to respond to the needs and demands of society and the workplace; and for personal fulfillment. Among these texts are fiction and nonfiction, classic and contemporary works.

3 - Students apply a wide range of strategies to comprehend, interpret, evaluate, and appreciate texts. They draw on their prior experience, their interactions with other readers and writers, their knowledge of word meaning and of other texts, their word identification strategies, and their understanding of textual features (e.g., sound-letter correspondence, sentence structure, context,
4 - Students adjust their use of spoken, written, and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes.

5 - Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes.

6 - Students apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language, and genre to create, critique, and discuss print and nonprint texts.

7 - Students conduct research on issues and interests by generating ideas and questions, and by posing problems. They gather, evaluate, and synthesize data from a variety of sources (e.g., print and nonprint texts, artifacts, people) to communicate their discoveries in ways that suit their purpose and audience.

8 - Students use a variety of technological and information resources (e.g., libraries, databases, computer networks, video) to gather and synthesize information and to create and communicate knowledge.

11 - Students participate as knowledgeable, reflective, creative, and critical members of a variety of literacy communities.

12 - Students use spoken, written, and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion, and the exchange of information).

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## Scoring Guide

**Student name: ________________________________**

<table>
<thead>
<tr>
<th>Spider unit</th>
<th><strong>Beginning</strong> 1</th>
<th><strong>Average</strong> 3</th>
<th><strong>Advanced</strong> 5</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>KWL activity</strong></td>
<td>I didn’t offer any idea of what I know about spiders or what I want to learn. I offered at least two insightful ideas about what I learned.</td>
<td>I offered at least one idea of what I know about spiders and what I want to learn. I offered at least two insightful ideas of what I learned.</td>
<td>I offered two or more ideas on what I know or what I want to learn. I offered four or more insightful ideas of what I learned.</td>
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<tr>
<td><strong>Literature</strong></td>
<td></td>
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<tr>
<td>response group</td>
<td>I needed reminders to participate in the group discussion. I offered one idea.</td>
<td>I sometimes needed reminders to participate in the group discussion. I offered at least two insightful ideas.</td>
<td>I actively participated in the group discussion. I offered at least four insightful ideas that showed critical thinking.</td>
<td></td>
</tr>
<tr>
<td><strong>Response journal</strong></td>
<td>I needed reminders to write my responses. I wrote very little.</td>
<td>I sometimes needed reminders to write my responses. I wrote about the required assignment, but did not put a lot of effort into it.</td>
<td>I wrote above what was expected from the assignment. My ideas were insightful and showed critical thinking.</td>
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<tr>
<td>Excel vocabulary sheet</td>
<td>I used Excel to type the vocabulary words and definitions. I didn’t find a classmate to complete the matching of the definitions and vocabulary words, nor did I match a classmate’s vocabulary words and definitions.</td>
<td>I used Excel to type all of the vocabulary words and their definitions. I didn’t find a classmate to complete the matching of the words and definitions. I completed at least one classmate’s matching definitions.</td>
<td>I used Excel to type all of the vocabulary words and their definitions. I found at least one classmate to match my vocabulary words and definitions.</td>
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<tr>
<td>Spider Shape Book Printouts</td>
<td>I printed the Spider Shape Book. I cut and assembled the book, but I didn’t answer the questions.</td>
<td>I printed the Spider Shape Book and I answered the questions, but I missed two or more of the questions.</td>
<td>I printed the Spider Shape Book, and I answered the questions correctly.</td>
<td></td>
</tr>
<tr>
<td>Spider anatomy diagram</td>
<td>I needed reminders and support to participate in the completion of the spider anatomy diagram.</td>
<td>I actively participated in the completion of the spider anatomy diagram by finding and labeling at least two spider parts.</td>
<td>I actively participated in the completion of the spider anatomy diagram by finding and labeling three or more spider parts.</td>
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<tr>
<td>Multimedia project</td>
<td>Our project contains only two slides. The font is hard to read and the background detracts from the message. There are more than five spelling and grammar errors.</td>
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<td></td>
<td>Our project contains at least four slides with a title slide, a slide listing the group, one slide of facts, and a &quot;why&quot; slide. The font is easy to read and the background is visually appealing. There are three to four spelling and grammar errors.</td>
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<tr>
<td></td>
<td>Our project contains at least five slides with a title slide, a slide listing the group names, two slides of facts, and a &quot;why&quot; slide. The font is easy to read and the background is visually appealing. There are fewer than two spelling or grammar errors.</td>
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<tr>
<td>Cooperative group work (individual rating)</td>
<td>I helped my group very little. I was respectful of the thoughts given by other group members.</td>
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<tr>
<td>Cooperative group work (group rating of individual)</td>
<td>I helped my group most of the time. I encouraged others to give their ideas and was respectful of their thoughts.</td>
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<tr>
<td></td>
<td>I helped my group a lot, but I didn’t try to boss the group. I encouraged others to give their ideas and was respectful of their thoughts.</td>
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</tbody>
</table>

Possible Points: 45
Your Score:
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