### LESSON 1 TEACHER'S GUIDE **Project Bug**

by Sofia Noble

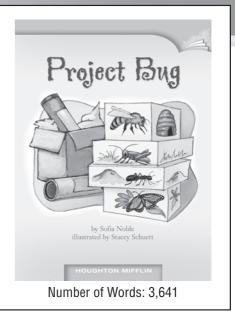
#### Fountas-Pinnell Level V

**Humorous Fiction** 

#### **Selection Summary**

Mr. Winkle's fifth-grade science class installs an insect zoo in the classroom. Class teams share bug care and invite guests to a zoo party. Just as it begins, several bugs escape! The next day brings a welcome surprise — an invitation to visit a real insect zoo!

### **Characteristics of the Text**



Genre	Humorous fiction
Text Structure	Third-person continuous narrative
	<ul> <li>Plot events in chronological order, references events in the past</li> </ul>
Content	• Facts about insects and insect kits
	• Facts about oyster larvae
Themes and Ideas	<ul> <li>Change and metamorphosis is a part of nature.</li> </ul>
	• Teamwork gets the job done.
	<ul> <li>Helping others can bring unexpected rewards.</li> </ul>
Language and	Generous use of dialogue, often humorous, for characterization
Literary Features	<ul> <li>Informal language; idioms; figures of speech; vivid verbs</li> </ul>
Sentence Complexity	<ul> <li>Many complex sentences, some with embedded clauses; fragments in dialogue; phrases in a series</li> </ul>
Vocabulary	Words associated with biology: Formicidae, mandibles
Words	Many multisyllable words
	<ul> <li>Compounds; base or root words with affixes or inflected endings</li> </ul>
Illustrations	Lively illustrations support the text.
	<ul> <li>Insert of simulated newspaper article</li> </ul>
<b>Book and Print Features</b>	<ul> <li>Seventeen pages of text, seven with illustrations</li> </ul>
	<ul> <li>Italics; extra space between paragraphs for a time lapse</li> </ul>
	Question marks, quotation marks, dashes, ellipses
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### **Project Bug** by Sofia Noble

### **Build Background**

Help students use their knowledge of insects to visualize the story. Build interest by asking questions such as the following: *Have you ever watched ants, crickets, or butterflies? What did you observe? Now imagine trying to raise those insects in a classroom. What could happen?* Read the title and author and talk about the cover illustration. Explain that this book is humorous fiction. Ask them what them what kind of plot would they expect to find in this kind of story.

#### **Introduce the Text**

Guide students through the text, noting important ideas and helping with unfamiliar language and vocabulary so they can read the text successfully. Here are some suggestions:

**Page 2:** Tell students that the students in Mr. Winkle's science class are talking about their Science Excursions, or field trips.

**Suggested Language:** Find "incubate salmon eggs" and "spawning tank" at the end of paragraph 3. Ask: What do those phrases mean?

**Dense 9.** Demind students to use contact the magnings of nearby words to

**Page 3:** Remind students to use context, the meanings of nearby words, to figure out the meaning of a new word. **Ask:** *Read paragraph 5. What words tell you the meaning of "oyster* **larvae**"? *Now read paragraph 7. Do you see that* **metamorphosis** *means "extreme change"? The metamorphosis of a caterpillar to a butterfly is an extreme change.* 

**Page 10:** Discuss the illustration. Explain that Kyle and Devon are opening the box in Mr. Winkle's class. **Ask:** *What do you think will happen once they open the box?* 

**Page 12:** Explain that the students are watching a documentary. Sir Galen is telling about ants. Have students read the first paragraph. **Ask:** *What have you seen ants carry in their* **mandibles**?

*Now go back to the beginning and read to find out how Project Bug transforms Mr. Winkle's class.* 

	Expand Your Vocabulary	
<b>colony</b> – a group of the same kind of animals, p. 8	incubate – to brood and hatch, p. 2	<b>metamorphosis</b> – a marked change in form or appearance,
<b>consumption</b> – the act of eating or drinking, p .14	<b>larvae</b> – the newly hatched form of certain animals, p. 3	p. 3 <b>spawning</b> – breeding fish, p. 2
formidable – inspiring fear or awe, p.11	mandibles – mouth parts used to seize or bite food, p.12	

## Read

Have students read silently while you listen to individual students read aloud. Support their understanding of the text as needed.

Remind students to use the Summarize Strategy **TARGET STRATEGY** as they read. Suggest that they pause after each page and in their own words, summarize what they just read.

## **Discuss and Revisit the Text**

#### **Personal Response**

Invite students to share their personal responses to the story.

**Suggested language:** What do you think Mr. Winkle thought when his class offered to donate its field trip money to help the city of Harding? How do you think he felt?

#### Ways of Thinking

As you discuss the text, help students understand these points:

Thinking Within the Text	Thinking Beyond the Text	Thinking About the Text
• Mr. Winkle's class donated its field trip money to help Harding after its grasshopper invasion.	• The experience of an insect zoo motivated students to learn a lot about insects on their own.	<ul> <li>Illustrations aid visualization of the text and emphasize its humor.</li> </ul>
<ul> <li>The class insect zoo had an ant colony, butterfly net, glass-sided beehive, and cricket tub.</li> <li>A pariag of michano lat ariekato</li> </ul>	• Having a sense of humor helps the teacher and students survive a chaotic situation.	• An insert of a simulated newspaper article adds interest, while supplying details necessary to the plot.
• A series of mishaps let crickets and butterflies loose at the insect zoo party, and it took hours to clean up.		<ul> <li>The gift of the field trip at the end of the book provides a satisfying ending.</li> </ul>

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### **Choices for Further Support**

- **Fluency** Invite students to choose a passage from the text that contains dialogue for choral reading. Remind them to keep in mind who is speaking and to read with expression, as if that character is speaking.
- **Comprehension** Based on your observations of the students' reading and discussion, revisit parts of the text to clarify or extend comprehension. Remind students to go back to the text to support their ideas.
- **Phonics/Word Work** Have students locate *microscope* (page 3, paragraph 5). Tell them it comes from the Latin roots *micro*, meaning "small" and *scopium*, meaning, "to see." Ask them how *microscope* is related to those two meanings. Remind them of other words built on those roots, such as *microsurgery* and *telescope*.

### Writing about Reading

#### **Critical Thinking**

Have students complete the Critical Thinking questions on BLM 1.9.

#### Responding

Have students complete the activities at the back of the book, using their Reader's Notebook. Use the instruction below as needed to reinforce or extend understanding of the comprehension skill.

#### **Target Comprehension Skill**

**Story Structure Structure Remind** students that a story's plot builds to a climax through a series of events that create problems to be solved and obstacles to be overcome. Those problems help build suspense. Model how to add details to the Graphic Organizer, using a "Think Aloud" like the one below:

#### Think Aloud

The chart lists one event that is leading up to a problem. What is another event? The wrong kits arrived. What problem did the events cause? Too many insect kits. What was the solution to the problem? It was to choose three kits and send the rest back. Add the event, problem, and solution to the chart to help explain story structure.

#### **Practice the Skill**

Encourage students to share another book they have read in which a series of problems or obstacles leads up to the plot's climax.

#### Writing Prompt: Thinking Beyond the Text

Have students write a response to the prompt on page 6. Remind them that when they think beyond the text, they use their personal knowledge to reach new understandings.

#### **Assessment Prompts**

- Which sentences from page 7 show that Mr. Winkle is absentminded?
- What does the word **consumption** mean on page 14.
- How would you describe the narrator's tone in the last paragraph of this story?

# English Language Development

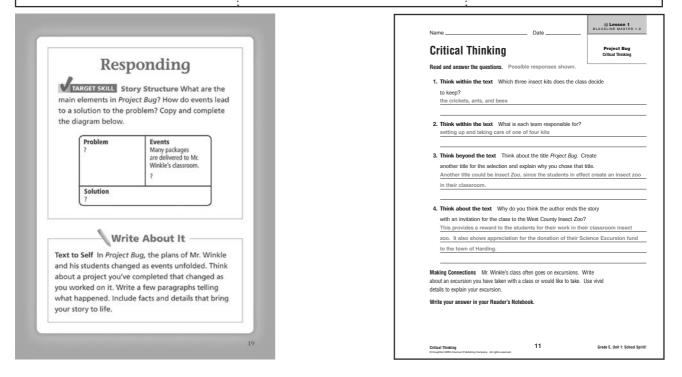
**Reading Support** Pair advanced and intermediate readers to read the story softly, or have students listen to the audio or online recordings. Remind students that Mr. Winkle's class project has several unexpected outcomes.

**Idioms** The story contains some idioms that might be unfamiliar. Explain the meaning of expressions such as *learned the hard way* (page 2), *top them all* (page 3), *squeeze a few dollars* (page 9), *a soft spot* (page 10), and *false alarm* (page 16).

#### **Oral Language Development**

Check student comprehension, using a dialogue that best matches your students' English proficiency level. **Speaker 1** is the teacher, **Speaker 2** is the student.

Beginning/Early Intermediate	Intermediate	Early Advanced/ Advanced
<b>Speaker 1:</b> What did Mr. Winkle's class start in its class?	Speaker 1: Why did the class decide to send its Science Excursion money to	Speaker 1: How did the class's insect zoo lead to its being
Speaker 2: an insect zoo	the city of Harding?	awarded an all-expense-paid field trip to the West County Insect
Speaker 1: Where was the beehive attached?	<b>Speaker 2:</b> Harding had been hit by a swarm of grasshoppers that devoured its popcorn crop.	Zoo? Speaker 2: When the class invited
Speaker 2: on the window	Speaker 1: When too many insect kits	visitors to its zoo, the director
<b>Speaker 1:</b> How did the crickets get loose?	arrived, what did Mr. Winkle decide to do?	of the West County Insect Zoo heard about it, was impressed, and invited the class to visit her
Speaker 2: Devon fell on their tub.	<b>Speaker 2:</b> He had the class vote on which three kits to keep, and he returned the rest of the kits.	zoo, all expenses paid.



## Project Bug

#### Thinking Beyond the Text

Think about the questions below. Then write your answer in two or three paragraphs.

Remember that when you think beyond the text, you use your personal knowledge to reach new understandings.

Mr. Winkle's class missed its Science Excursion but in return got Project Bug. Was it a good exchange? Why or why not? What did they learn as they set up the insect exhibits? Do you think Project Bug is a good way to teach science? Explain your answer.


Date \_\_\_\_

**Project Bug** Critical Thinking

# **Critical Thinking**

Read and answer the questions.

1. Think within the text Which three insect kits does the class decide

to keep?

- 2. Think within the text What is each team responsible for?
- **3. Think beyond the text** Think about the title *Project Bug*. Create

another title for the selection and explain why you chose that title.

**4. Think about the text** Why do you think the author ends the story with an invitation for the class to the West County Insect Zoo?

**Making Connections** Mr. Winkle's class often goes on excursions. Write about an excursion you have taken with a class or would like to take. Use vivid details to explain your excursion.

#### Write your answer in your Reader's Notebook.

### **Project Bug** • LEVEL V

### **Project Bug**

**Running Record Form** 

page	Selection Text	Errors	Self-Corrections
13	Monday's presentations were a huge success. The class learned a lot of surprising facts. They discovered that bee- keepers feed new hives with sugar syrup until the bees start producing honey; crickets chirp by rubbing their wings together; Monarch butterflies eat plants that make them taste bad to predators; and harvester ants bite the sprouts off seeds they collect to prevent them from growing in the nest. Throughout the week, the teams worked on their kits. They fiddled. They expanded. They made a large butterfly tent by hanging gauze mosquito netting from the ceiling. They installed the glass-sided beehive in the classroom window.		
	Comments:	Accuracy Rate (# words read correctly/104 × 100) %	Total Self- Corrections

Behavior	Code	Error
Read word correctly	<b>√</b> cat	0
Repeated word, sentence, or phrase	@ cat	0
Omission	cat	1

Behavior	Code	Error	] ~
Substitution	cut cat	1	30637- 7-7 0000
Self-corrects	cutso cat	0	0-547- 7-3063
Insertion	the ∧cat	1	: 978- : 0-54
Word told	① cat	1	SBN-13