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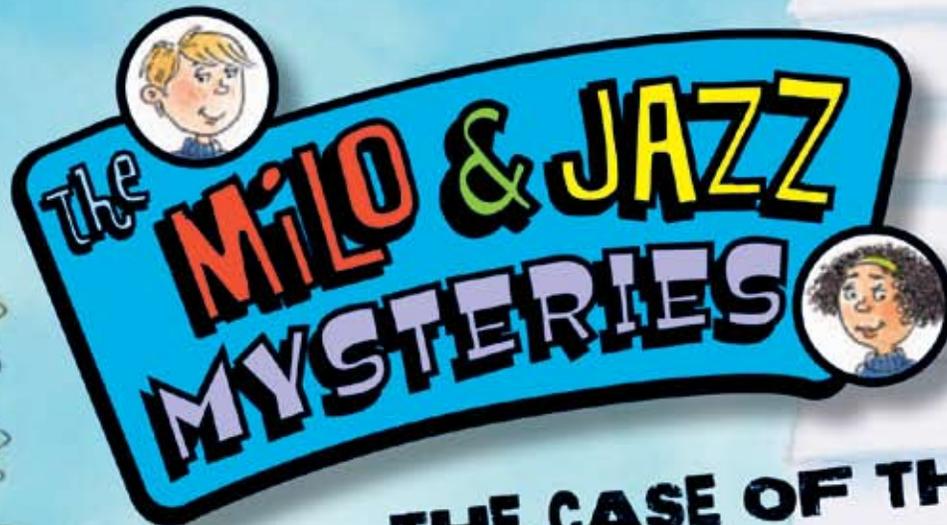
THE MILO & JAZZ MYSTERIES

THE CASE OF THE POISONED PIG

Detective's Guide

by **Lewis B. Montgomery**
illustrated by **Amy Wummer**

Dear Detectives-in-training,

Milo and I learned a LOT in *The Case of the Poisoned Pig*! We got better at working together, we figured out how to pass notes written in invisible ink, and we even learned how to clean pig puke off a sheet of homework. (It's as gross as it sounds.)

We also learned about another one of master detective Dash Marlowe's sleuthing strategies: *patterns*. Dash told us, "Find the pattern in the clues you gather, and you'll solve your case."

In this Detective's Guide, you'll find out:

- What a pattern is and how looking for patterns can help detectives

- How to create secret notes

- How to use clues in a schedule to find the information you need

- How to do research and organize your notes. (Milo has gotten a lot better at this since he teamed up with me! Well . . . a little better.)

Are you ready to follow our pattern and become detectives-in-training like us? Then let's go!

　　　Your pal,

　　　Jazz

Detective Skill: Looking for a Pattern

A pattern is created when something is predictable because it happens repeatedly, according to a rule. If detectives can find a pattern, they can predict how they can find more clues.

Great detectives like Dash can spot a pattern from a mile away. Then they can use the pattern to discover new clues or predict a suspect's next move.

Try out this activity to test your skills at spotting different types of patterns!

Part 1: Look at the examples on the left. If the sequence is a pattern, show how the pattern will continue in the box on the right. If it is not a pattern, draw an "X" in the box.

(1) 1, 3, 5, 7, 9	(1)
(2) red, blue, yellow, green, green	(2)
(3) 8 AM, 4 PM, 8 AM, 4 PM	(3)
(4) ★ ● ▲ ★ ●	(4)

Part 2: In your own words, explain what a pattern is.

_____

_____

Part 3: Draw a pattern.

Part 4: There are many examples of patterns within our own lives. Think about your daily schedule. Write a few sentences explaining how there is a pattern in your own life.

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Detective Skill: Think Like a Scientist

Experimenting

Milo and Jazz use invisible ink from their detective kit to pass secret notes. On another piece of paper, test out these methods for writing secret messages.

Thank goodness I gave Jazz that invisible-ink pen. Otherwise Ms. Ali could have read our secret detective notes!

There are lots of ways to write secret messages, and you don't even need fancy supplies. Check out these two methods and see which one you like more.

White Crayon	Baking Soda
Supplies: • White paper • White crayons • Watercolor paints • Paintbrush • Cup of water *To write the secret message:* On white paper, write your message with a dry crayon. *To read the secret message:* Use the watercolor paint and paint over the message. *Why it works:* The wax from the white crayon repels the watercolor paint.	**Supplies:** • Baking soda • Water • Grape juice • Paintbrushes • Small bowl *To write the secret message:* Mix equal parts baking soda and water into a small bowl until the baking soda has dissolved. Using this mixture, write your message with a paintbrush. *To read the secret message:* Once the message is dry, rinse your paintbrush and use it to rub juice over your message. *Why it works:* The acid in the grape juice reacts with the baking soda, causing the baking soda that remains on the paper to change color.

Which way do you think worked the best? Give at least two reasons why you think so.

_____

_____

Detective Skill: Patterns in Schedules

Use Ms. Ali's Class Schedule to help you make predictions and answer the questions below.

Does your class follow a schedule every day? Studying a schedule can help you predict when things will happen.

See if you can make predictions based on our class schedule.

Ms. Ali's Class Schedule					
	Monday	Tuesday	Wednesday	Thursday	Friday
9:00–11:00	Language Arts	Language Arts	Language Arts	Language Arts	Language Arts
11:00–11:25	Lunch	Lunch	Lunch	Lunch	Lunch
11:25–11:50	Recess	Recess	Recess	Recess	Recess
11:50–2:00	Math	Math	Math	Math	Math
2:00–2:45	Library	Gym	Music	Gym	Art
2:45–3:30	Science	Social Studies	Science	Social Studies	Science
3:30–4:15		Basketball	Art Club	Math Club	

1. Milo has a dentist appointment on Wednesday morning. He also has a math test the same day. His mom tells him he will be back at school by 11:00 a.m. Do you think Milo will miss his math test? _____

2. It's Tuesday afternoon at 2:30 p.m. The principal went into Ms. Ali's class, but none of her students were there. Where could the principal go to find them?

_____

3. Carlos had a headache and went to the school nurse's office during recess. The nurse allowed him to lie down for one hour. What subject will he be late for?

_____

4. Jazz's mom picked her up at 4:15 p.m. on Wednesday afternoon. What was she probably doing after school? _____

5. Spencer's mom wanted to call Ms. Ali. What is a day and time that she could call her when Ms. Ali would not be teaching?_____

BONUS: On the back of the paper, write a question we could predict the answer to using Ms. Ali's class schedule.

Detective Skill: Research

In this book, Milo and Jazz learn how to keep Jazz's pet pig safe and healthy. Research an animal of your choice. Take notes about the animal in the space below. Then, on a separate paper, either create a poster or write an essay about the needs of the animal you chose.

Did you know that all pigs aren't pink? I've learned a lot about pigs since Jazz got her little piglet, including how to make a whole house pig-proof.

What animal are you interested in learning more about?

Detail:

Detail:

Detail:

Detail:

Animal:

Detail:

Detail:

Detail:

Detail:
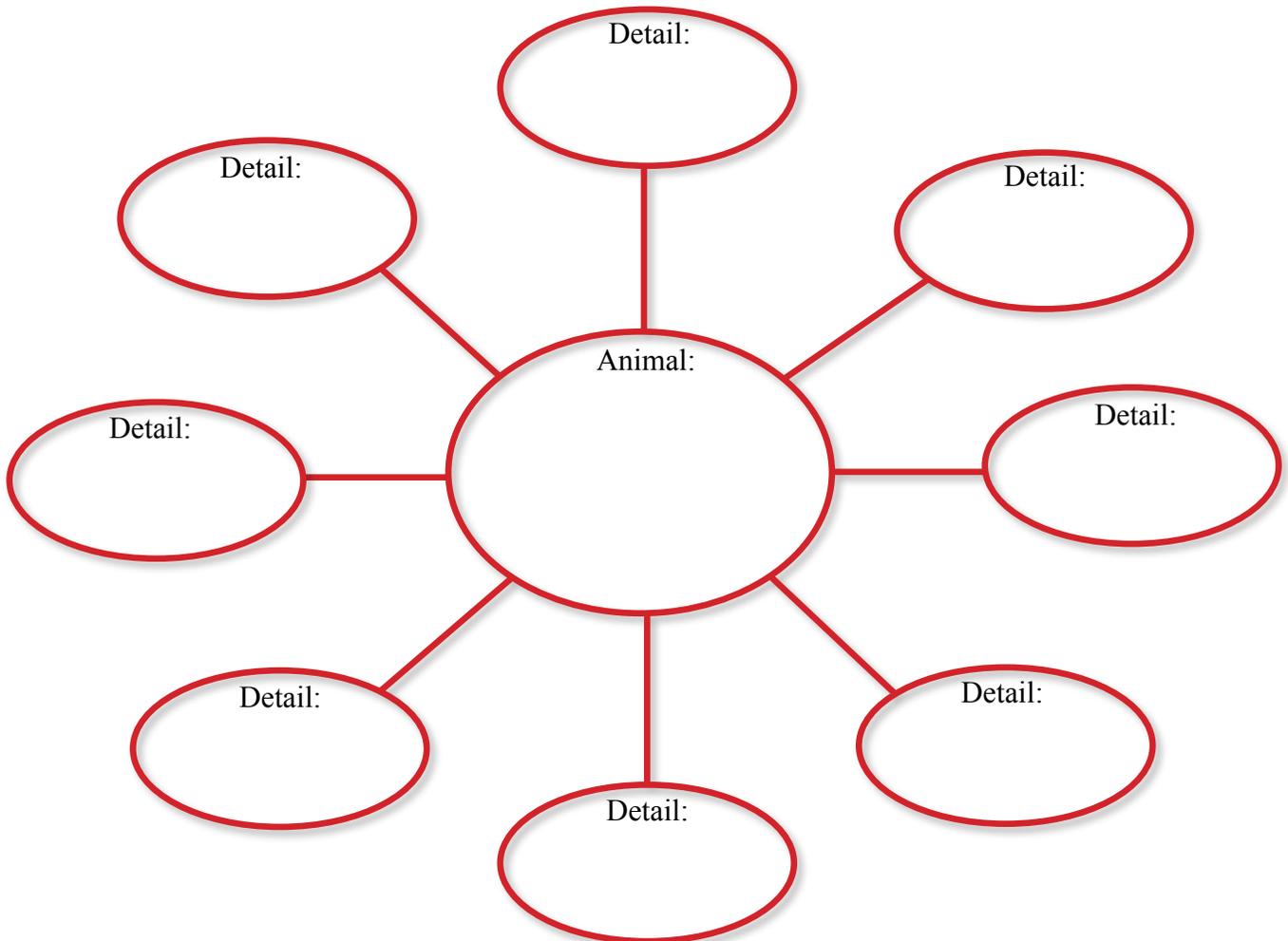
Detective Skill: Recording Information

Chapter 1: What was the surprise that Jazz had for Milo?

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Chapter 2: What would you name the pig? Explain why you think it is the best name for a pig.

_____

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_____

Chapter 3: Dr. Soo says that it looks as if the pig was poisoned. How do you think this could have happened? What do you predict will happen next?

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Chapter 4: At the end of Chapter 4, Ethan tells Milo and Jazz that the "space alien boy" is back. Who is the "space alien boy"? What would you do if you were Milo and Jazz?

_____

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Chapter 5: Would you want to be friends with Gordy? Why or why not?

_____

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Chapter 6: What advice did Dash Marlowe give in his letter? Do you think this is good advice? Why or why not?

_____

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Chapter 7: What is one thing that happened in this chapter that may be important to helping Milo and Jazz figure out how the pig was poisoned?

_____

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Chapter 8: Milo and Jazz have two suspects: Gordy and Mrs. Budge. Who do you think is poisoning the pig? Why?

_____

_____

_____

Chapter 9: What did Milo and Jazz discover in this chapter? How did looking for a pattern help them?

_____

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Chapter 10: What do you think Milo and Jazz will tell Dash Marlowe in their letter?
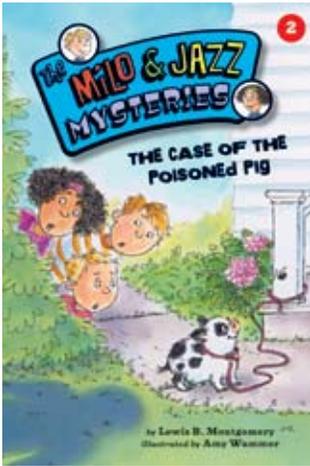
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Teacher Resources
for The Case of the Poisoned Pig Detective's Guide

Activities Aligned to Common Core State Standards

Looking for a Pattern

Learning objective: Students will be able to identify patterns in their own lives.

Extension

• Have students create their own patterns using shapes, numbers, colors, music, or objects. Have each student share their patterns with the class, and then have the other students predict how the pattern would be extended. If time constraints exist, break the class into groups of three to five students and have students share within their groups.

Standards

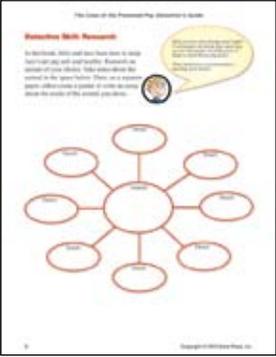CCSS.MP7 Look for and make use of structure.

Grade 2
2-PS1-1 Patterns in the natural and human world can be observed.

Grade 3
3-PS2-2 Patterns of change can be used to make predictions.

Think Like a Scientist: Experimenting

Learning objective: Students will draw a conclusion about which invisible writing technique works best, based on the results of their experiment.

Extension

• Ask students to think about other ways that messages can be sent in secret, such as coded messages. Try using a coded message where each letter of the alphabet actually represents another letter. Another way might be using numbers instead of letters. Discuss how these methods compared to using invisible ink.

Standards

Grades K-2

K-2-ETS1-3 Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.

Grades 3-5

3-5-ETS1-2 Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

3-5-ETS1-3 Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype than can be improved.

Patterns in Schedules

Learning objective: Students will draw conclusions from a weekly schedule.

Extension

• Create a weekly class schedule, similar to the one for Ms. Ali's class. Then discuss what conclusions can be drawn from the schedule.

Standards

CCSS.MP7 Look for and make use of structure.

Grade 2

2-PS1-1 Patterns in the natural and human world can be observed.

Grade 3

3-PS2-2 Patterns of change can be used to make predictions.

Research

Learning objective: Students will use a variety of resources to research an animal. Students will then present their research by creating a poster or essay.

Extension
• Have students present their posters and essays to the class. Have students take notes on the presentations. At the end, have each student share one fact that they learned from the presentations that they think is one of the most important facts presented. Write the facts shared on a piece of chart paper to display.

Standards
CCRA.W.7 Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
CCRA.W.8 Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
CCRA.W.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.

Recording Information

Learning objective: Students will answer questions to demonstrate their understanding of the text.

Extension
• Have students write a letter to Dash Marlowe explaining how they think Milo and Jazz are doing as detectives-in-training.

Standards
Grade 2
RL.2.1 Ask and answer such questions as who, what, where, when, why and how to demonstrate understanding of key details in a text.

Grade 3
RL.3.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

Grade 4
RL.4.1 Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

FOR MORE ACTIVITIES, VISIT
www.kanepress.com/milo-and-jazz-activities