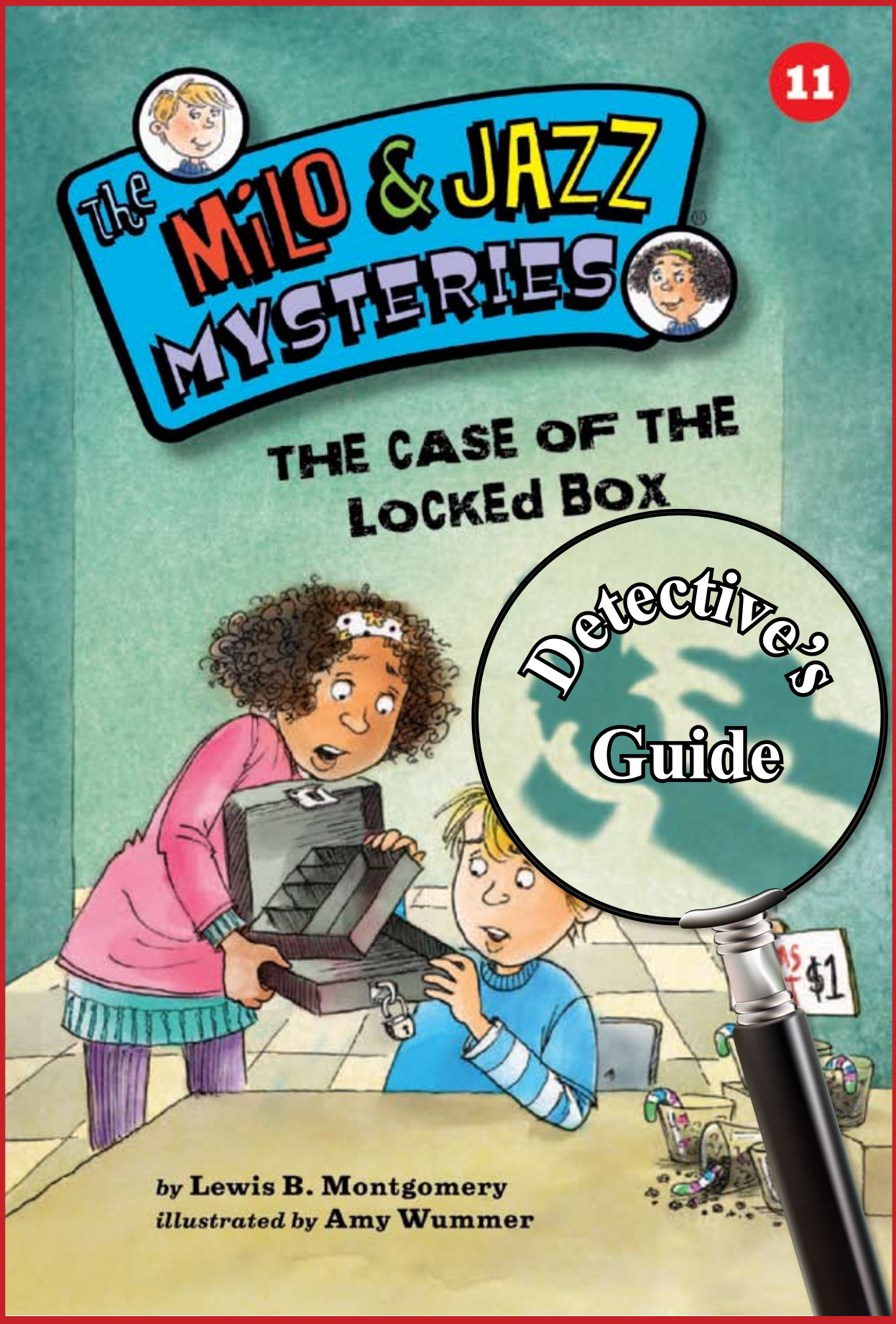
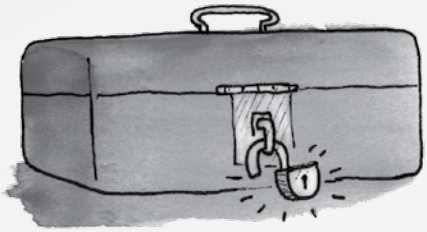

11
The MILO & JAZZ MYSTERIES
THE CASE OF THE LOCKED BOX
Detectives' Guide
$1
by Lewis B. Montgomery
illustrated by Amy Wummer

Dear Detectives-in-training,



They say that justice is blind. I don't know exactly what that means, but I *do* know that justice can take some pretty hard detective work—especially when your best friend is on trial! Luckily, Jazz and I knew just who to turn to in order to solve *The Case of the Locked Box*. Ourselves! And master detective Dash Marlowe, of course.

Dash told us that one way to solve a case is to "make a model (a small copy) that lets you reenact the crime and see how it could—or couldn't—have been committed."

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

- How making a model can help you crack a case
- How to solve problems with multiple solutions
- How to create a plan and describe it mathematically
- How a trial works and who participates in the process.

Are you ready to head to court? Then let's go!

Your pal,

Milo

Detective Skill: Creating a Model

A model is a copy of something. Oftentimes a model is made smaller than an original (for example, a model car). Sometimes a model is created when the original object cannot be used (for example, on a movie set, models of famous locations are often built so that the cast and crew doesn't need to travel).

If you're not there to witness a crime, Dash suggests making a model to help you visualize what happened.

But there are lots of kinds of models—car models, clothes models. . . . Help us figure out what Dash meant!

Part 1: *Sometimes words can mean more than one thing. Circle the words that mean the same thing as the kind of model Dash Marlowe is referring to.*

original	statue	imitation
photograph	copy	person
representation	duplicate	puzzle

Part 2: *Milo and Jazz bought a lockbox and lock set. Explain how they were hoping the model would help them to solve the mystery of who took the money.*

_____

_____

_____

Part 3: *Draw a picture of Milo and Jazz's model.*

Part 4: *Write other words or phrases that mean the same thing as* model.

_____

Detective Skill: Think Like a Mathematician

Problem Solving

Sometimes detectives need to use their mathematical skills to solve problems.

What's better than finding a solution to a problem? Finding more than one solution to a problem!

Help us figure out how many packs of seeds and cups of "dirt" we need to sell to reach our goal.

School Garden Fundraiser							
		Solution 1		Solution 2		Solution 3	
		Number Sold	Dollar Value Sold	Number Sold	Dollar Value Sold	Number Sold	Dollar Value Sold
Seeds (sunflower seeds)	$1.50						
Dirt (chocolate cookie crumbs and a gummy worm)	$2.50						

The student council set a goal to sell $150 worth of treats to raise money for the school garden. They needed to know how many of each item to make so that they would have enough treats to raise the money. There are many solutions to this problem.

Show your work below and then show three ways that they could have solved the problem in the chart above.

Detective Skill: Think Like a Mathematician

Planning and Plotting

The student council has decided that they want to plant at least six different types of vegetables and fruits. They want half of their garden to be for fruits and half to be for vegetables.

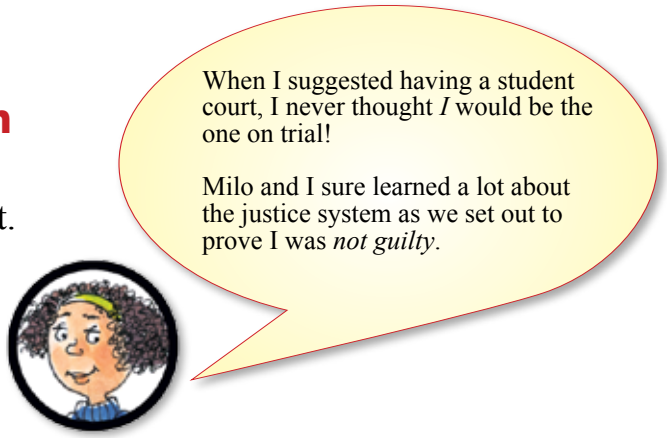
I think we should plant strawberries, tomatoes, and cucumbers in the school garden. Jazz wants raspberries, squash, and pumpkins.

Everyone on the student council has different thoughts! What fruits and vegetables do you think we should plant?

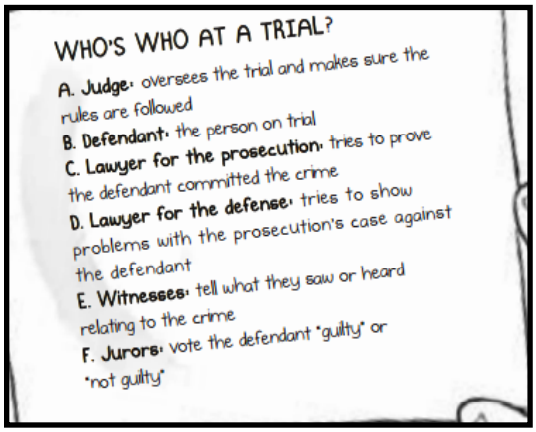
Use the diagram below to show how you would arrange the garden and label what types of plants you would use.

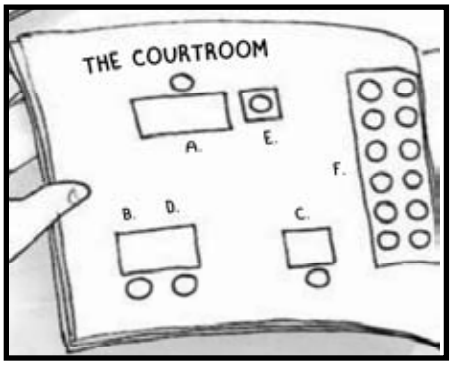
Notice that there are 24 squares in the diagram representing the garden. Each square on the grid represents 1/24 of the garden. Explain what fraction of the garden will be used for each plant you have chosen.

Detective Skill: Understanding the Legal System



Write TRUE or FALSE next to each statement. If the statement is false, show how it could be changed to be true.





1. In the book, Jazz was the defendant because she was accused of taking the money. _____

2. Milo created a model because he was the lawyer for the prosecution and wanted to prove that Jazz had not taken the money. _____

3. Witnesses could be called to say what they guessed might have happened to the money. _____

4. The principal probably did not choose a fifth grader as the judge because the judge has to know all of the rules of the trial to make sure they are followed and it was the first time the elementary school had had a trial. _____

5. The jurors had to listen carefully to what the witnesses said so they could decide whether Jazz was guilty or innocent. _____

What else do you know about a courtroom and how a trial is run? Write a sentence or two explaining what you know.

_____

Detective Skill: Recording Information

Chapter 1: What do you predict happened to the cash?

Chapter 2: Do you think Jazz took the money? Why or why not?

Chapter 3: Summarize Dash Marlowe's advice to Milo and Jazz.

Chapter 4: Why do Milo and Jazz go to the hardware store?

Chapter 5: What did Milo think happened to the lock? Was he correct? How do you know?

Chapter 6: Who do you think Milo suspects at the end of this chapter? What do you think that person's motive is?

Chapter 7: How did Milo's opinion of Omar change in this chapter?

Chapter 8: Do you think Chelsea took the money? Why or why not?

Chapter 9: Summarize how the thief got into the cashbox.

Chapter 10: Why do you think Chelsea preferred not to have a student trial?

Teacher Resources
for The Case of the Locked Box
Detective's Guide

Activities Aligned to Common Core State Standards

Creating a Model

Learning objective: Students will demonstrate their understanding of what a model is and how it can be used to help solve a mystery.

Extension

- Ask students to use clay to create a model of something that is important to them. Have students share their models.

Standards

Grade 2

CCSS.RL.2.4 Describe how words and phrases supply rhythm and meaning in a story, poem, or song.

Grade 3

CCSS.RL.3.4 Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.

Grade 4

CCSS.RL.4.4 Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology.

Think Like a Mathematician: Problem Solving

Learning objective: Students will add and multiply monetary amounts with decimals to solve a multi-step problem with many possible solutions.

Extension

• Add more options. Ask students to show how many of each item it would take to raise $150 if the characters sold "Rocky Chocolate Fudge" for $4.50 and "Flower Cupcakes" for $3.25 in addition to Seeds ($1.50) and Dirt ($2.50).

Standards

Grade 3

CCSS.3.OA.D.8 Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Grade 4

CCSS.4.MD.A.2 Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger units in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

Think Like a Mathematician: Planning and Plotting

Learning objective: Students will create a garden with fruits and vegetables. They will then explain their diagram using fractions.

Extension

• Divide students into small groups. Give each group the bottom of two egg cartons (so there are 24 places). Give each group different colors of unit cubes or similar counters in multiple different colors. Then ask groups to use their counters to demonstrate different fractions.
Examples:
1) Place red counters in 1/4 of the spots. What fraction remains to place green counters in? 2) Place red counters in 10/24 of the spots. Place blue counters in 1/3 of the spots. Place green counters in 1/4 of the spots.

Standards

Grade 3

CCSS.3.NF.A.1 Understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size 1/b.

Grade 4

CCSS.4.NF.B.3.A Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.

Understanding the Legal System

Learning objective: Students will identify the key roles within a legal proceeding.

Extension

- Hold a mock trial within your classroom. (Examples of crimes on trial: Stolen class mascot. Cheating during playground games. Missing lunchbox or lunch money. Messy bathroom or disrespect for school property.)

Standards

D2.Civ.1.K-2 Describe roles and responsibilities of people in authority.
D2.Civ.1.3-5 Distinguish the responsibilities and powers of government officials at various levels and branches of government and in different times and places.

Recording Information

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

Extension

- Role play Jazz's trial. Create a script and have students act out each of the roles.

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