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Exploring Reading —Level 6

This sample includes the following:

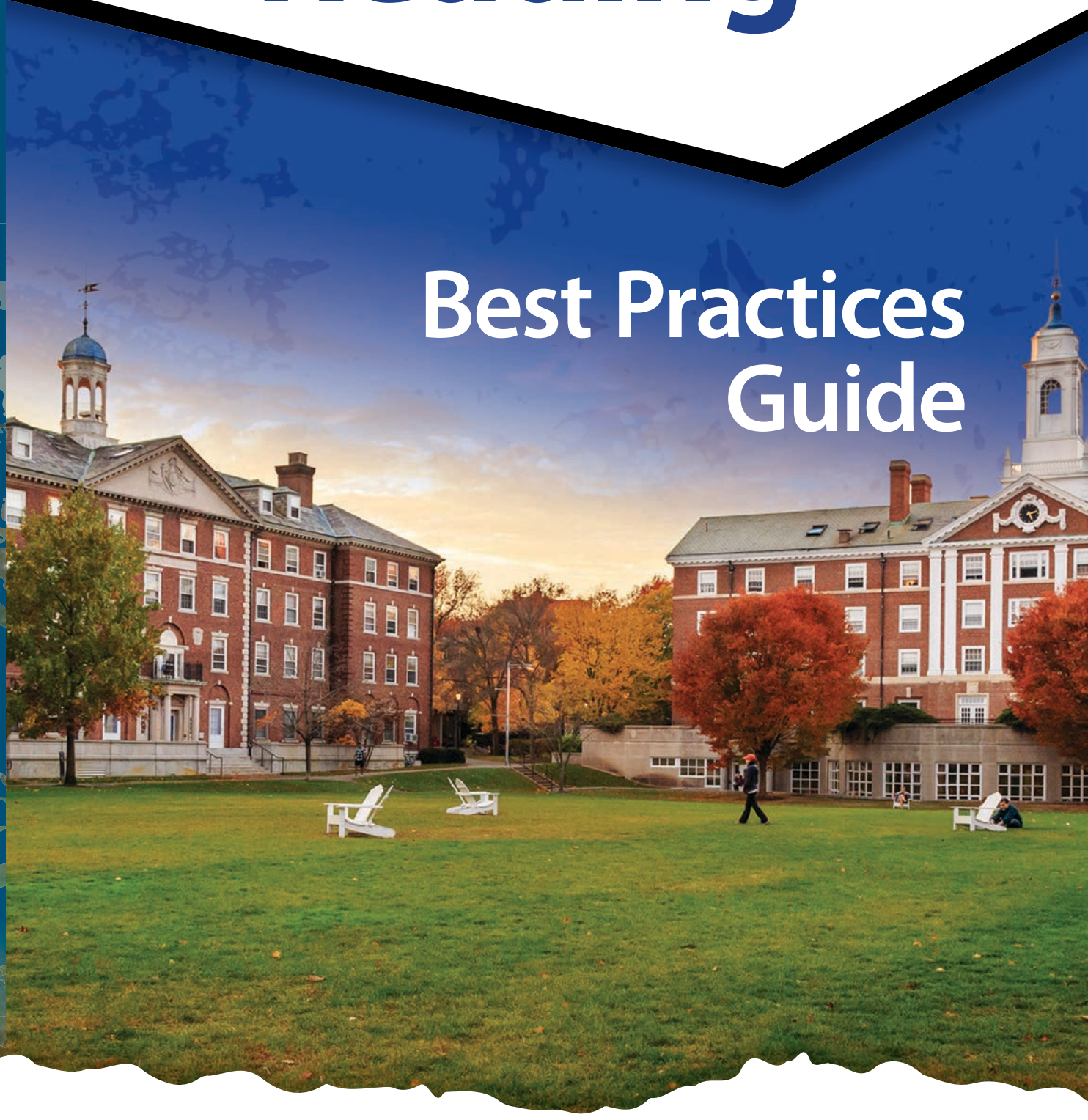
To Create a World in which Children Love to Learn!

TIME

Teacher Created Materials

Exploring Reading

6



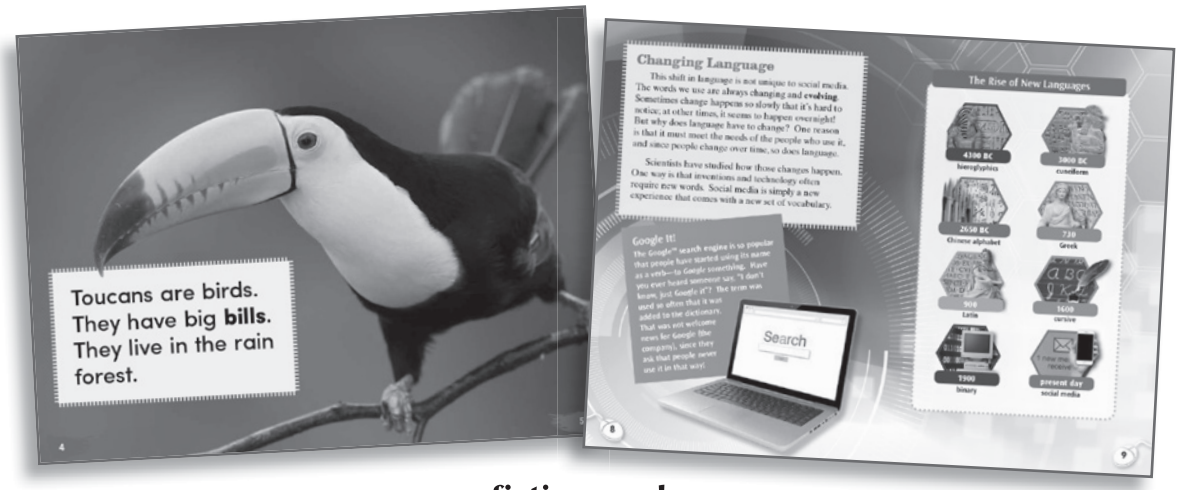
Best Practices Guide

Table of Contents

The Importance of Reading Informational Text

In an increasingly global and information-rich society, students need to be eager to learn, seek answers, and have the necessary skills to navigate the various informational texts they will come across in school, the workplace, and everyday life. According to Stephanie Harvey and Anne Goudvis in their book *Strategies That Work: Teaching Comprehension to Enhance Understanding*, "interesting, authentic nonfiction fuels kids' curiosity, enticing them to read more, dig deeper, and search for answers to compelling questions" (2007, 156).

Aside from the long-term goal of developing skilled readers, nonfiction text also has a role in standardized testing. Because students are most often tested on their abilities to comprehend nonfiction text, it is important to provide readers with explicit instruction for the ways in which nonfiction text is organized, along with specific skills and strategies for comprehending nonfiction text. In their article featured in *The Reading Teacher* (2000), Broaddus and Ivey suggest that familiarity with nonfiction text will add to students' depth of content-area knowledge and understanding, which may increase standardized test scores.



nonfiction readers

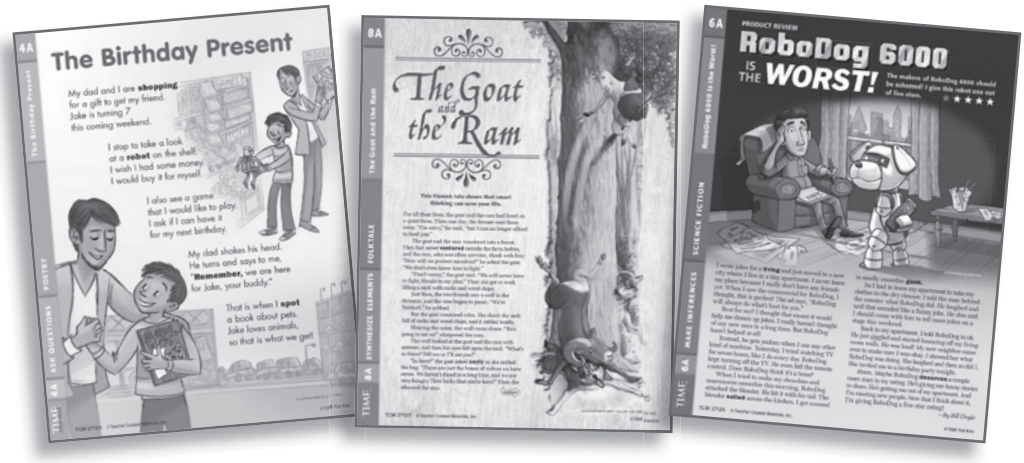
These are some examples of nonfiction text in *Exploring Reading.* All nonfiction text contains nonfiction text features, rich charts, diagrams, images, and photographs to bring the text to life.

text cards

The Importance of Reading Literature

Recommending that children read "literary wholes" may seem like a contemporary criticism of basal programs, but this quotation is taken from a 1908 work on the teaching of reading in the United States, *The Psychology and Pedagogy of Reading* by Edmund Burke Huey. Huey's observations highlight what every parent and teacher of young children knows—children love a good story. And the discussion that extends from the story is just as important. Speaking and listening strategies are critical during preschool and primary grades, during which time oral discourse provides the primary context for learning. Numerous correlational studies indicate that frequent, high-quality reading experiences benefit preschoolers in vocabulary acquisition (Lawrence and Snow 2011). Further, primary students who are learning decoding skills benefit from discussions that set a purpose for reading, activate prior knowledge, ask and answer thoughtful questions, and encourage peer interaction. Reading fiction provides rich opportunities for oral discourse development and vocabulary acquisition.

text cards



These are some examples of the fiction selections in *Exploring Reading.* All literature text contains story elements, rich vocabulary, and engaging images that support the text.

literature selections

The Importance of Intertextuality

Using fiction and nonfiction texts together is a natural way to explore themes. In an article in *The Reading Teacher,* Deanne Camp poses this question: "Given children's natural tendencies to ask questions about the world around them, why not focus on both fact and fiction to answer those questions?" (2000, 400) Fictional books can be an engaging way to introduce a topic to students; however, instruction does not need to begin with the work of fiction. Reading a nonfiction text before a fictional text on the same topic can build or strengthen background knowledge that may be required to successfully comprehend the fictional piece (Baer 2012; Soalt 2005). Additionally, students who prefer nonfiction texts will be more motivated to read a related fictional text when the informational piece is presented first (Soalt 2005). According to research by Sylvia Read, "interacting with nonnarrative texts may be the best path to overall literacy" (2005, 36).

TCM Grade Level, word count, Fountas and Pinnell Guided Reading Level, DRA Level, and Lexile Level are listed on the back cover of each reader. These measures are for reference only, as *Exploring Reading* nonfiction readers are not meant to match student's independent reading level. The books are studied through a shared read, led by the teacher. The books have the appropriate rigor for the purpose.

Theory into Practice

The Great Works Instructional Guides for Literature included in each *Exploring Reading* kit encourage teachers to engage in **modeled reading of rich, diverse texts**. The selections include a variety of characters and stories meant to be **culturally relevant and engaging** to all students.

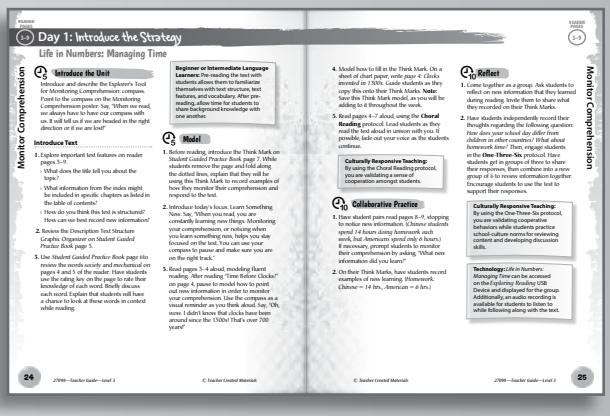
Table 3 lists the literature selections that have been chosen for each level. The *Teacher's Guide* provides prompts and activities. More importantly, sharing the literature provides opportunities for authentic, student-initiated use of comprehension strategies.

Theory into Practice

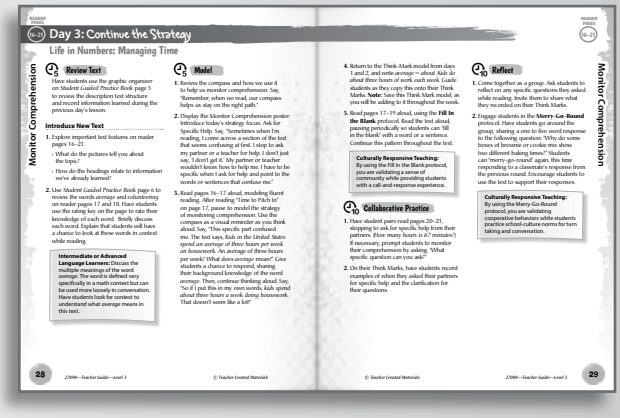
Reader Sample Lesson

Exploring Reading has embedded Gradual Release of Responsibility into each reader lesson, including review, teacher modeling, and collaborative practice.

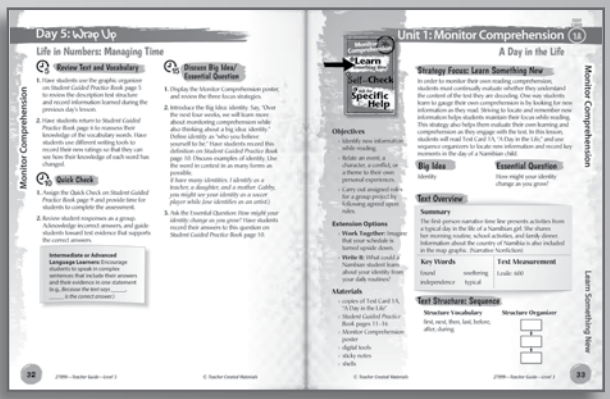
On day one, the teacher **introduces the strategy**. The teacher models reading fluently with a **shared read** before student practice with a partner.



By the third day of each reader lesson, students **practice the strategy** as they read the text with less guidance from the teacher.



Each reader lesson ends with a quick check, reflection, and discussion. Students reread, write, and discuss the big idea **as a group or with partners**.



Instructional Overview

Exploring Reading has eight units, each focusing on a different reading comprehension strategy. Instruction is organized into 30-minute lessons. If taught daily, each of the eight units spans four weeks.

Sample Unit

<table>
<tr><th>Nonfiction Reader</th><th colspan="3">3 Text Cards</th></tr>
<tr><th>Big Idea: Roles</th><th colspan="3">Essential Question: What makes a leader?</th></tr>
<tr><th>Week 1</th><th>Week 2</th><th>Week 3</th><th>Week 4</th></tr>
<tr><td>Strategy: Monitor Comprehension</td><td>Learn Something New</td><td>Self Check</td><td>Ask for Specific Help</td></tr>
<tr><td> 
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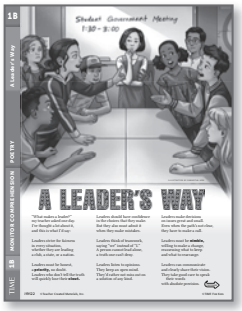
</td><td> 
</td><td> 
</td></tr>
<tr><td>Students use an Explorer Tool to learn a comprehension strategy. After building shared knowledge, students are introduced to a big idea.</td><td colspan="3">Students read three text cards and practice three parts of the strategy. They continue to explore the big idea through an essential question. This ties all the texts together. The unit concludes with a reflective-writing exercise, asking students to revisit their initial thoughts about the big idea.</td></tr>
</table>

After every four units (mid-year and end-of-year), teachers can use the *Great Works Instructional Guide for Literature* to navigate students through an authentic trade book. These instructional guides include authentic vocabulary instruction and activities, key discussion points, guided close-reading questions, writing prompts, and assessments.

Nonfiction Reader Lessons

During each of the reader lessons, students will examine **text structures**, **text features**, **vocabulary**, and **comprehension strategies**. Students will receive **explicit modeling** from the teacher before **practicing the strategy** independently or with partners. Each lesson concludes with a **discussion** and a **reflection** on learning. The accompanying *Student Guided Practice Book* pages give students a chance to practice vocabulary, analyze text structure, record thinking, and assess comprehension.

Text Card Lessons

Lessons for the text cards differ slightly each day.

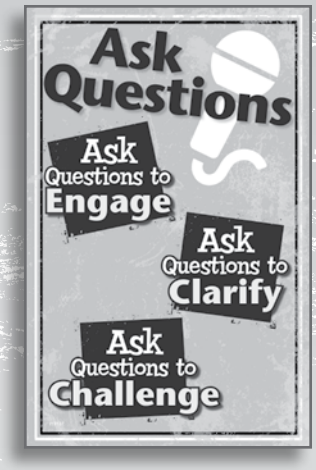
- *Day 1:* Students **analyze text features** and **identify new vocabulary** words. After an introduction to a new strategy focus, students read the text for the first time, applying the strategy.
- *Day 2:* Teachers lead students through a **close reading** of the text card. Students **annotate** and **jot notes** directly on a copy of the text in their *Student Guided Practice Books*. Students look at elements such as word choice and author's purpose while also **analyzing the text** and **applying comprehension strategies**.
- *Day 3:* Students read the text a final time. This time, they are looking for **evidence of the Big Idea** while also examining the text **structure** or **author's craft**. Discussion questions allow the group to reflect on learning while also pulling elements of the Big Idea from the text and applying them to other scenarios.
- *Day 4:* Students learn and practice a **language skill** that aims to enhance their speaking, listening, reading, or writing abilities. Students also complete a Quick Check **comprehension assessment** and review answers as a group. This allows teachers to embed **test-taking strategies** into their teaching.
- *Day 5:* Teachers are given two activities from which to choose. Students can **work collaboratively** to write, create, or discuss, or they can complete a **writing assignment** that asks them to reflect upon the content of the text card as well as the Big Idea or Essential Question. On the last day of the unit, teachers may choose to have students return to their notes about the Big Idea and **record text evidence** that supports a **deeper understanding**.

Assessment

Throughout *Exploring Reading*, teachers can assess students' progress and reading development in a variety of ways. First, teachers can pinpoint specific areas of need by administering the **Diagnostic Assessment**. A **Pretest** and a **Posttest** can be given at the beginning and end of each unit to measure growth. Additionally, an **Oral Reading Assessment** is provided for each reading selection. Finally, teachers can measure overall improvement in reading comprehension with the **Summative Assessment**. See the *Exploring Reading Assessment Guide* for more information.

Unit 4: Ask Questions

Fantastic Lives: College Bound



Objectives

- Use text structure to comprehend a variety of texts.
- Apply understanding of the text to clarify meaning or ask questions.
- Synthesize understanding of the text to ask questions that challenge what is written.

Materials

- copies of *Fantastic Lives: College Bound*
- *Student Guided Practice Book* pages 77–82
- Ask Questions poster
- *Fantastic Lives: College Bound* Interactiv-eBook
- digital tools, sticky notes, chart paper

Big Idea

Distinction

Essential Question

What are the challenges of being distinct?

Unit Overview

Throughout this unit, students will learn and practice three strategies that will help them question the text. They will ask questions to engage with the text, clarify confusing information, and challenge the author or the content. As students read *Fantastic Lives: College Bound*, they will use microphones as a reminder to ask questions while reading.

Text Summary

Many 18-year-old students finish high school and then go to college. But some youngsters take college classes when they are just 10 years old! Some are as smart as Albert Einstein. What do you think it is like today to finish a university degree or two as a teenager? Let's meet some brilliant kids who have done just that. (Informational Text)

Key Words

biomedical
discipline
intern
intimidation
residency

Text Measurement

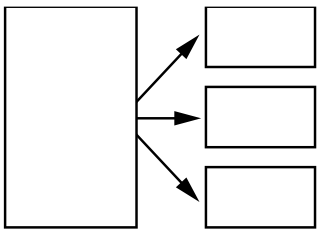
Lexile: 820L

Text Structure: Cause and Effect

Structure Vocabulary

cause, effect, because, result, affect, change, consequence, due, since

Structure Organizer



1–15 Day 1: Introduce the Strategy

Fantastic Lives: College Bound

5 Introduce the Unit

Introduce and describe the Explorer Tool for Ask Questions: microphone. Point to the microphone on the Ask Questions poster. Say, "The microphone is a reminder for us to ask questions while we read. We can identify anything that might be unclear and make a point to ask those questions."

Introduce Text

1. Explore important features on reader pages 1–15.
   - › What does the title tell you about the topic?
   - › What information from the index might be included in the chapters listed in the table of contents?
   - › How do you think this text is structured? How can we best record new information?
2. Review the cause-and-effect graphic organizer on *Student Guided Practice Book* page 77.
3. Have students skim reader pages 1–15, searching for bold words that have not been recorded on *Student Guided Practice Book* page 78. Have students choose two of these words to record at the bottom of the chart.

Beginner or Intermediate Language Learners:
Help students understand that the text relates to kids going to college earlier than usual. Preview the photos. Draw attention to the photo on page 7, showing a person graduating from college. Introduce words such as *intelligent*, *brilliant*, and *genius* as words that relate to being smart. Have students use the words in sentences.

5 Model

1. Before reading, introduce the Think Mark from *Student Guided Practice Book* page 79. While students remove the page and fold along the dotted lines, explain that they will use this Think Mark to record examples of how they ask questions and respond to the text.
2. Introduce today's focus: Ask Questions to Engage. Say, "When reading nonfiction, it can be helpful to ask questions about the topic to engage with the text. For example, by looking at the cover, I might want to ask why going to college is considered a fantastic life. That question makes me curious and more interested to read."
3. Read pages 4–6 aloud, modeling fluent reading. After reading "Young Geniuses" on page 6, pause to model how to ask questions to engage. Say, "Reading about these kids makes me think of a question. Is it possible for any young person to go to college early, or are these kids a lot smarter than others? That question helps me engage with the text and makes me curious to keep reading in order to find the answer to my question."

4. Model how to complete the Think Mark. Write on a sheet of chart paper, *page 6: study, learn quickly*. Guide students as they copy this onto their Think Marks. **Note:** Save this Think-Mark model, as you will be adding to it throughout the week.
5. Explain the concept of a Dig Deeper. Say, "This book includes a Dig Deeper. It usually isn't read as body text because it isn't a continuation of the previous page. Its purpose is to allow readers to dig deeper into a topic that has already been mentioned in the book." Read pages 8–11 aloud, using the **Choral Reading** protocol. Lead students as they read the text aloud in unison with you. If possible, fade your voice as the students continue.

Cultural Responsiveness:
By using the Choral Reading protocol, you are validating the cultural behavior of collective success among students.

10 Collaborative Practice

1. In pairs, have students read pages 12–15, stopping to ask questions to engage with the text. (E.g., *Why would older students say mean things to young students?*) If necessary, prompt students by asking, "What information makes you curious?"
2. On their Think Marks, have students record examples of how they asked questions to engage (e.g., *mean comments*).

10 Reflect

1. Come together as a group. Ask students to reflect on how they asked questions to engage during reading. Invite them to share what they recorded on their Think Marks.
2. Ask, "What answers did you find for your questions?" Engage students in the **Campfire Discussion** protocol. Have the group sit in a circle with a sheet of paper (campfire) in the middle. Each student writes his or her answer on a sticky note and places it "in the campfire" (on the paper). Students then take turns reading aloud a sticky note other than their own, discussing the responses. Encourage students to use the text to support their responses.

Cultural Responsiveness:
By using the Campfire Discussion protocol, you are validating the cultural behavior of shared responsibility and connectedness while students practice school-culture norms for taking turns and deciding how and when to speak.

Technology:
Fantastic Lives: College Bound can be accessed on the *Exploring Reading* USB Device and displayed for the group. Additionally, an audio recording is available for students to listen to while following along with the text.

16–23 Day 2: Use the Strategy

Fantastic Lives: College Bound

5 Review Text

Have students use the graphic organizer on *Student Guided Practice Book* page 77 to review the cause-and-effect text structure and record information learned during the previous day's lesson.

Introduce New Text

1. Explore important features on reader pages 16–23.
   - What do the pictures tell you about the topic?
   - How do the headings help us predict the content?
2. Use *Student Guided Practice Book* page 78 to review the words *intern* and *discipline* on reader pages 20 and 22. Have students use the rating key on the page to rate their knowledge of each word. Briefly discuss each word. Students can use the glossary in the back of the reader or write their own definitions.

Intermediate or Advanced Language Learners:
Draw a cause and effect organizer on the board. Provide some sample causes and have students tell you some possible effects. (If the cause is *Smith studied genes in a lab*, an effect would be *He helped create better medicines*.) Point to the boxes on the organizer as you discuss the causes and effects.

5 Model

1. Review how the microphone helps us ask questions. Say, "Remember, when we read, we use our microphone to help us ask questions to engage."
2. Display the Ask Questions poster. Introduce today's focus: Ask Questions to Clarify. Say, "When we read new information, we sometimes have to clarify our understanding. We ask questions to better understand sentences of sections that aren't clear or don't make sense."
3. Read page 16 aloud, modeling fluent reading. After reading "In the Public Eye" on page 16, pause to model how to ask questions to clarify. Say, "I read here that Smith was asked to speak about children's rights when he was a young boy. That makes me think of a question. How are kids treated unfairly in some places? I'll keep this question in mind as I continue reading to see if there is an answer to my question or it's something I can do outside research on." Continue modeling fluent reading on page 17.
4. Return to the Think-Mark model from day 1, and write, *page 16: Smith, speaking, children's rights*. Guide students as they copy this onto their Think Marks. **Note:** Save this Think-Mark model, as you will be adding to it throughout the week.
5. Read pages 18–21 aloud, using the **Fill in the Blank** protocol. Read the text aloud, pausing periodically so students can "fill in the blank" with a word or sentence. Continue this pattern throughout the text.

Cultural Responsiveness:
By using the Fill in the Blank protocol, you are validating a sense of community while providing students with a call-and-response experience.

Cultural Responsiveness:
By using the One-Three-Six protocol, you are validating the cultural behavior of shared responsibilities while students practice school-culture norms for reviewing content and discussion.

10 Collaborative Practice

1. In pairs, have students read pages 22–23, stopping to ask questions to clarify. (E.g., *Because Cavalin was homeschooled, when was he around other kids often enough to experience being bullied?*) If necessary, prompt students by asking, "What information is unclear to you?"
2. On their Think Marks, have students record examples of how they asked questions to clarify (e.g., *Cavalin, experience, bullying*).

10 Reflect

1. Come together as a group. Ask students to reflect on how they asked questions to clarify during reading. Invite them to share what they recorded on their Think Marks.
2. Have students independently record their thoughts regarding the following question: In what ways do these kids use their skills to help others? Then, engage students in the **One-Three-Six** protocol. Have students get in groups of three to share their responses, and then combine into a group of six to review information together. Encourage students to use the text to support their responses.

Day 3: Continue the Strategy

Fantastic Lives: College Bound

5 Review Text

Have students use the graphic organizer on *Student Guided Practice Book* page 77 to review the cause-and-effect text structure and record information learned during the previous day's lesson.

Introduce New Text

1. Explore important features on reader pages 24–31.
   - What do the pictures tell you about the topic?
   - How do the headings relate to information we've already learned?
   - What do you think we will learn?
2. Use *Student Guided Practice Book* page 78 to review the word *biomedical* on reader page 30. Have students revisit reader pages 4–31, searching for bold words that have not been recorded on *Student Guided Practice Book* page 78. Have students choose one word to record at the bottom of the chart.

Beginner or Intermediate Language Learners:
Have students look at the photo on page 25. Point out that page 24 is about the girl wearing the blue plaid jacket. Point to her, and use the word *smart*. Then, communicate that the girl is smart in math and technology by writing down a math problem and show a picture of or pointing to a computer. Discuss other smart people students know and what makes them smart.

5 Model

1. Review how the microphone helps us ask questions to clarify. Say, "Remember, when we read, we use our microphone to help us ask questions to clarify."
2. Display the Ask Questions poster. Introduce today's focus: Ask Questions to Challenge. Say, "Sometimes, we read information and we're not quite sure it's accurate. In these cases, we ask questions to challenge the information. Is that really true? How does the author know this? Asking these kinds of questions inspires us to keep reading in order to understand the information better."
3. Read pages 24–26 aloud, modeling fluent reading. After reading "Why STEM?" on page 26, pause to model how to ask questions to challenge. Say, "I read here that Imafidon encourages girls as young as age five to pursue technical careers. This brings a question to mind. Can five-year-olds really be interested in future careers at such a young age?"
4. Return to the Think-Mark model from days 1 and 2, and write, *page 26: technical careers, girls*. Guide students as they copy this onto their Think Marks. **Note:** Save this Think-Mark model, as you will be adding to it throughout the week.
5. Read pages 27–28 aloud, using the **Jump-In Reading** protocol. Ask one student to start reading aloud. As this student reads, other students can "jump in" and start reading at any period. When another student starts reading, the first student stops. Encourage students to give each reader the chance to read several lines before jumping in.

Cultural Responsiveness:
By using the Jump-In Reading protocol, you are validating the cultural behavior of improvisation while naturally simulating the flow of conversation that occurs in some languages.

Cultural Responsiveness:
By using the Merry-Go-Round protocol, you are validating the cultural behavior of shared connectedness while students practice school-culture norms for taking turns and conversation.

10 Collaborative Practice

1. In pairs, have students read pages 29–31, stopping to ask questions to challenge. (E.g., *Does NASA still have material collected from the moon?*) If necessary, prompt students by asking, "What does Stewart want to do with the skills he has in science?"
2. On their Think Marks, have students record examples of how they asked questions to challenge the text. (E.g., *What moon material?*)

10 Reflect

1. Come together as a group. Ask students to reflect on how they asked questions to challenge during reading. Invite them to share what they recorded on their Think Marks.
2. Engage students in the **Merry-Go-Round** protocol. Have students go around the group, sharing one- to five-word responses to the following question: What careers in STEM are important now and will be in the future? Students can "merry-go-round" again, this time responding to a classmate's response from the previous round. Encourage students to use the text to support their responses.

32–41 Day 4: Know the Strategy

Fantastic Lives: College Bound

5 Review Text

Have students use the graphic organizer on *Student Guided Practice Book* page 77 to review the cause-and-effect text structure and record information learned during the previous day's lesson.

Introduce New Text

1. Explore important features on reader pages 32–41.
   - › What do the pictures tell you about the topic?
   - › How do the headings help to wrap up the book?
2. Use *Student Guided Practice Book* page 78 to review the word *forensic* and *residency* on reader pages 34 and 38. Briefly discuss each word. Explain that students will have a chance to look at these words in context while reading.

Intermediate or Advanced Language Learners:
Read pages 36–37 aloud. Point out that kids who are driven and work hard toward careers also have hobbies. Draw students' attention to the sidebar on page 37 that tells about Yano's piano ability. Encourage students to describe things that Yano does at work and play, using vocabulary such as *working*, *healing*, *fixing*, *playing*, *listening*, and *composing*.

5 Model

1. Review how the microphone helps us ask questions. Say, "Remember, when we read, we use our microphone to help us ask questions to engage, ask questions to clarify, and ask questions to challenge."
2. Display the Ask Questions poster. Say, "Today, we are going to use all three parts of the Ask Questions strategy. We're going to jot examples of how we ask questions to engage, ask questions to clarify, and ask questions to challenge."
3. Read page 32 aloud, modeling fluent reading. After reading about Cespedes on pages 32, pause to model one of the focus strategies mentioned above. Say, "As I read, I'll think about the three strategies. I have a question that needs clarifying. It says she got a bachelor's degree in accounting and later master's degree in accounting. Why would she choose to earn two degrees in the same subject?"
4. Return to the Think-Mark model from days 1–3, and write, *page 32: Cespedes, accounting, two degrees*. Guide students as they copy this into the corresponding section of their Think Marks.
5. Read pages 33–35 aloud, using the **Fade In/ Fade Out** protocol. Begin by providing a nonverbal cue to a student who will begin reading. After a few words or sentences, provide a nonverbal cue to the next student, who will join in with the first student—quietly at first and then getting louder. When the first student hears a peer reading along, his or her voice fades until only the second reader can be heard.

Cultural Responsiveness:
By using the Fade In/Fade Out protocol, you are validating the cultural behavior of shared responsibility while practicing school-culture norms for taking turns.

10 Collaborative Practice

1. In pairs, have students read pages 36–41, stopping to ask questions to engage, ask questions to clarify, and ask questions to challenge. (E.g., *If I study hard enough, can I be as smart as these kids?*) If necessary, prompt students by asking, "What information makes you curious or needs to be cleared up for you?"
2. On their Think Marks, have students record examples of different questions they asked to engage, questions asked to clarify, and questions asked to challenge. (E.g., *What if my interests cannot be studied in a classroom setting?*)

10 Reflect

1. Come together as a group. Ask students to reflect on the different questions they asked during reading. Invite them to share what they recorded on their Think Marks.
2. Have students sit in a circle to begin the **Whip Around** protocol. Ask the group the following question: What would be the best thing about going to college as a kid? Quickly point to each student in succession, giving no more than five seconds for a response. Students can add to their peers' contributions or disagree and offer rebuttals. If a student does not have a response, continue around the circle, and return to him or her later. Encourage students to use the text to support their responses.

Cultural Responsiveness:
By using the Whip Around protocol, you are validating the cultural behavior of cooperation while students practice school-culture norms for taking turns.

Technology:
If students are ready to work independently, have them access the digital platform and complete one or more of the activities. Students can annotate the text, watch two videos, complete a word work activity, or do a comprehension assessment.

Day 5: Wrap Up

Fantastic Lives: College Bound

5 Review Text and Vocabulary

1. Have students use the graphic organizer on *Student Guided Practice Book* page 77 to review the cause-and-effect text structure and record information learned during the previous day's lesson.
2. Have students return to *Student Guided Practice Book* page 78 to reassess their knowledge of the vocabulary words. Have students use different writing tools to record their new ratings so they can see how their knowledge of each word has changed.
3. You may choose to have students revisit the reader to more fully respond to the Dig Deeper, Stop! Think…, and Think Link features.

10 Quick Check

1. Assign the Quick Check on *Student Guided Practice Book* page 81, and provide time for students to complete the assessment.
2. Review student responses as a group. Acknowledge incorrect answers, and guide students toward text evidence that supports the correct answers.

Beginner or Intermediate Language Learners:
Read aloud page 40. Tell students that people go to college to study things that interest them. Ask students to share things they like to do. Encourage them to share using full sentences or single words.

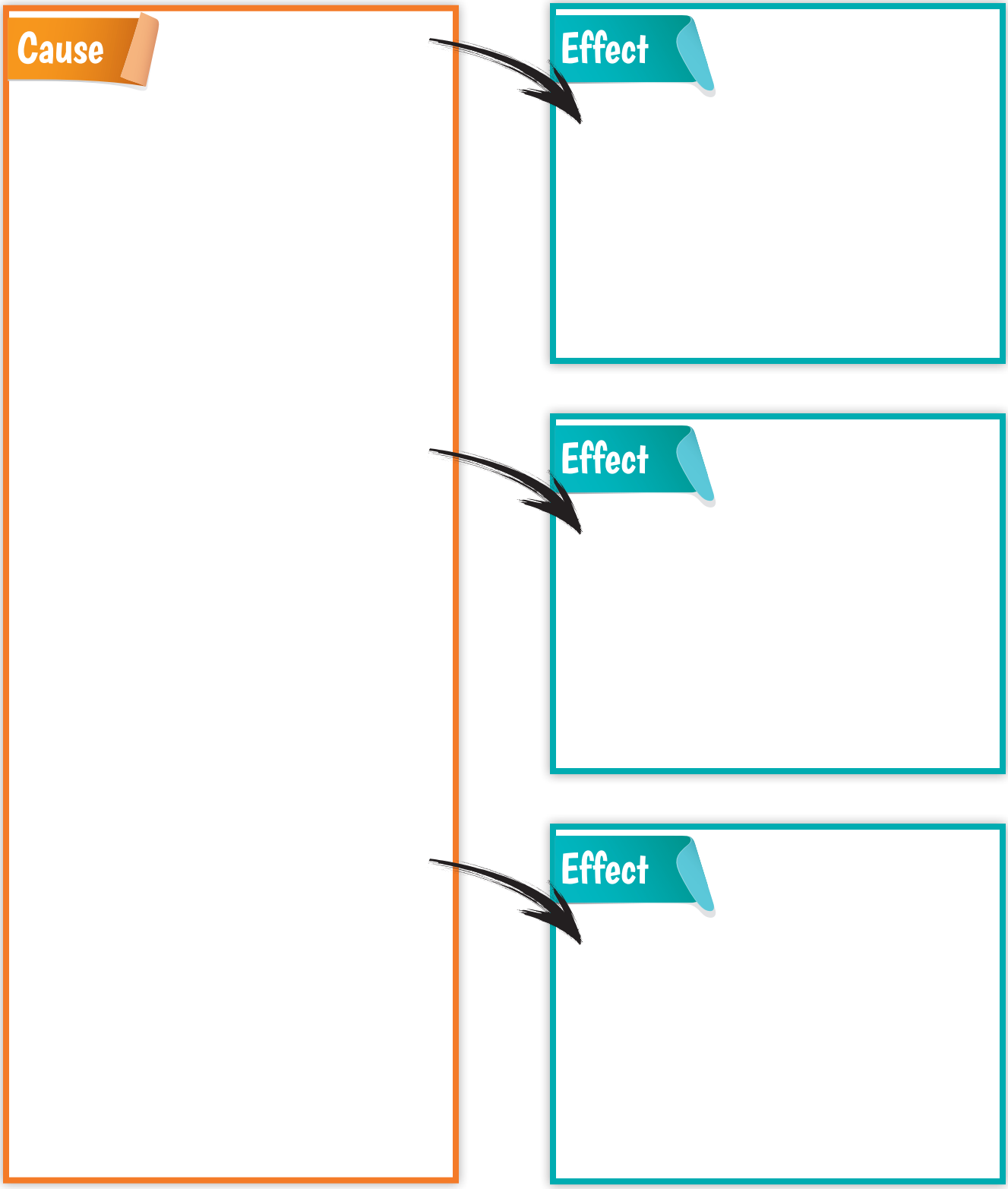
15 Discuss Big Idea/ Essential Question

1. Direct students' attention to the Ask Questions poster, and review the three focus strategies.
2. Introduce the Big Idea: distinction. Say, "Over the next three weeks, we will learn more about asking questions while we also think about a Big Idea: distinction." Define *distinction* as "something that is different between people or things." Have students record this definition on *Student Guided Practice Book* page 82. Discuss examples of distinction. Use the word in context in as many forms as possible. (E.g., *There isn't much distinction between these two chairs. She graduated with distinction. There is a distinct difference between these shoes and those.*)
3. Ask the Essential Question: *What are the challenges of being distinct?* Have students record their answers to this question on *Student Guided Practice Book* page 82.

Name _____ Date _____

Cause and Effect Graphic Organizer

Directions: In the Cause box, write the name of a student from the book and what he or she studied. Then, write three effects of that student's work.



Name _____ Date _____

Words to Know

Directions: Before studying each word, assess your background knowledge.

Self Rating	Word	Definition
	intern (page 20)	
	discipline (page 22)	
	biomedical (page 30)	
	forensic (page 34)	
	residency (page 38)	

0
This word is brand new to me.

1
I've seen this word before, but I don't know what it means.

2
I kind of know what this word means.

3
I could teach this word to a friend.

Explorer Tools

Monitor Comprehension

Determine Meaning

Summarize

Make Inferences

Use Text Features

Use Evidence

Ask Questions

Synthesize Elements

Thinkmark

Ask Questions to Engage

Ask Questions to Clarify

Ask Questions to Challenge

Name _____ Date _____

Quick Check

Directions: Choose the best answer for each question. You may use the text to help you.

1. It says that Cavalin is a Certified Ethical Hacker. What does that mean?

(A) He isn't old enough to work at NASA, so he took a different job.
(B) He was so smart that he passed a really hard test.
(C) He hacks into computer systems to find problems before bad guys do.
(D) He's really good at math and passes every test he takes.

2. The text says that many people go to college to pursue a love of learning. What question challenges this idea?

(A) Don't some people go to college to get better-paying jobs?
(B) Don't some people struggle to get good grades even though they love to learn?
(C) Don't some people love to learn but do not like learning in a classroom?
(D) all the above

3. What makes the kids in the book distinct?

(A) They like the same things as other kids.
(B) They are smarter than the average kid.
(C) They are all interested in science.
(D) They all go to the same school.

4. What is a problem some young kids face in college?

(A) People can be mean to them.
(B) They don't understand the work.
(C) Their classes are too hard for them.
(D) Their parents have to be with them all the time.

5. What is a positive result of kids going to college early? Make sure to use details from the text in your writing.

_____

_____

Name _____ Date _____

Big Idea: Distinction

What does it mean? _____

What are the challenges of being distinct?

Record your thoughts **before** exploring: Date: _____

You have discussed distinction in four texts. Have your thoughts changed from what you wrote above? Use examples from at least two texts to answer the question again.

Date: _____

Name _____ Date _____

Pretest

Directions: Read the passage.

Do You Hear What I Hear?

Like most inventors, Howard Stapleton began with a problem. He noticed shop owners having difficulty with crowds. Sometimes, the groups outside their stores were harmless. The trouble was when they misbehaved.

Traditional alarms weren't an ideal solution. They could scatter a crowd well. But in the process, they also upset shoppers and owners. Stapleton wanted a new kind of alarm: a quiet one.

After noting that most of the loiterers were young adults and teens, Stapleton had an idea. He knew that hearing declines with age. After the age of 25, most of us lose the ability to hear frequencies higher than 15 kilohertz (kHz). So, what if he could create an alarm that only those under 25 could hear? Such a creation would drive away crowds without bothering everyone.

Thus, Stapleton created The Mosquito. His invention emits a high-pitched 17 kHz sound, similar to a gnat buzzing in your ear. For those young enough to hear it at all, the noise isn't bad at first. But after 20 to 30 minutes, it becomes annoying enough to make them want to leave the vicinity.

Worldwide, shop owners, school officials, and law officers are using the device to drive away crowds. They credit it for preventing crime. They claim it protects their property and customers. They even say that they deal with less graffiti, damage, and drug use.

But opponents argue that the device is unfair. It discriminates against young adults and teens. Plus, the ear isn't just responsible for hearing. It also helps us keep equilibrium—in other words, balance. The high-pitch frequency, they say, could cause dizziness, headaches, and nausea as a result.

For now, the proponents are winning. The device remains legal in most countries, including the United States. For his part, Howard Stapleton stands behind his invention. But he also markets a ringtone to those ages 12 to 25. Set at the same high frequency, the tone means teens can text without alerting teachers and parents.

Name _____ Date _____

Pretest *(cont.)*

Directions: Use the text on page 46 to help you answer the questions.

1. Which question challenges an idea from the text?

(A) Can people over age 25 hear high-pitched frequencies?

(B) Is it safe to subject people to high-pitched frequencies?

(C) Does an alarm help prevent crime?

(D) Is the device legal?

2. Which question helps the reader understand a new word?

(A) Why did the author title the passage "Do You Hear What I Hear?"

(B) Why are *loiterers* mentioned in the third paragraph?

(C) Why are young adults and teens causing trouble?

(D) What is the annoying noise that people are bothered by?

3. What question could I ask to see whether I can relate to the text?

(A) Do dogs get bothered by high-pitched noises?

(B) Does creating inventions make you money?

(C) What is a time I noticed a crowd of teens misbehaving at a store?

(D) Have I ever seen a store manager who seemed annoyed?

4. What does the first sentence of the last paragraph make readers wonder?

(A) Will this law change in the future?

(B) Will the opponents keep fighting the law?

(C) Can store owners find another invention that is more fair?

(D) all the above

5. Which question challenges a concept from the text?

(A) Is the noise bad at first?

(B) Do store owners want to find another way to solve the problem?

(C) Is 17 kHz sound high pitched?

(D) Is it fair to use the device against young adults and teens?

Name _____ Date _____

Fantastic Lives: College Bound (page 6)

Total Word Count	Codes				
195	E = errors	SC = self-corrections	M = meaning	S = structure	V = visual

Word Count	Text	E	SC	Cues Used	
				E	SC
2	Young Geniuses			M S V	M S V
10	Who are these young students who graduate early			M S V	M S V
18	from high school and earn college degrees? You			M S V	M S V
27	might have more in common with them than you			M S V	M S V
29	might think.			M S V	M S V
38	In this book, you'll meet six brilliant students. On			M S V	M S V
47	page 16, you can read about Gregory Smith, who			M S V	M S V
56	earned a diploma from a public high school in			M S V	M S V
63	Florida when he was 9 years old.			M S V	M S V
70	Some of the featured students were homeschooled.			M S V	M S V
77	Belicia Cespedes liked studying at home because			M S V	M S V
87	she could learn as quickly as she wanted. Her story			M S V	M S V
91	is on page 32.			M S V	M S V
98	Wherever these students learned, they also played			M S V	M S V
106	sports, hung out with friends, and played musical			M S V	M S V
112	instruments. Sho Yano began creating classical			M S V	M S V
125	music on the piano by the age of 5. His story is on			M S V	M S V
136	page 36. Yano isn't the only smart one in his family.			M S V	M S V
147	His sister earned a biology degree at the age of 13.			M S V	M S V
149	Musical Genius			M S V	M S V
156	Wolfgang Amadeus Mozart is considered a child			M S V	M S V
165	prodigy. When he was three years old, he could			M S V	M S V
174	play chords on the harpsichord. Two years later, he			M S V	M S V
184	was composing his own songs. As a child and into			M S V	M S V
192	his teens, he traveled Europe playing concerts for			M S V	M S V
195	royalty and nobility.			M S V	M S V

Error Rate: ☐ **Self-Correction Rate:** ☐ **Accuracy Percentage:** ☐ **Time:** ☐

Ask Questions

Ask Questions to Engage

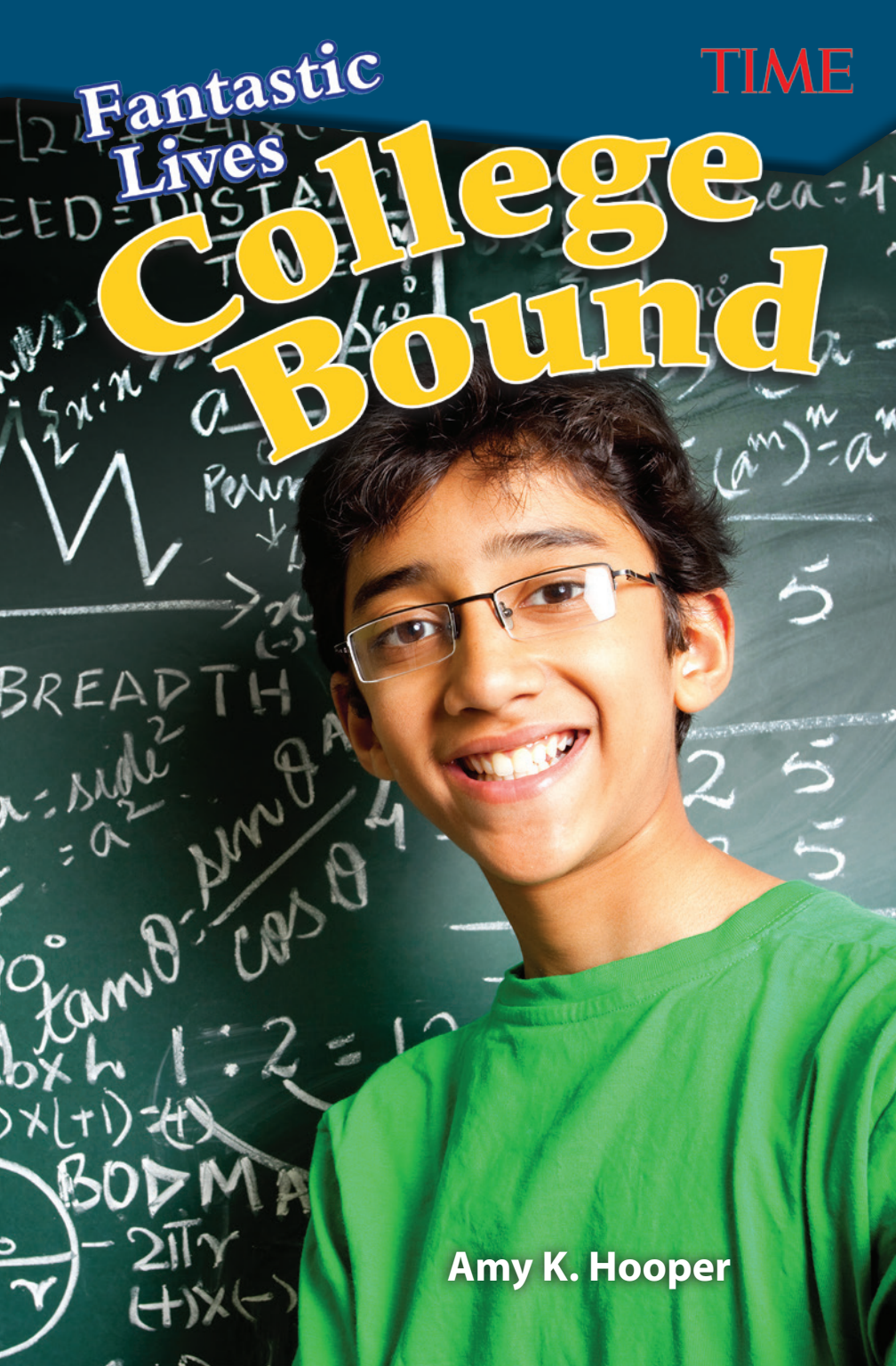
Ask Questions to Clarify

Ask Questions to Challenge

TIME

Fantastic Lives

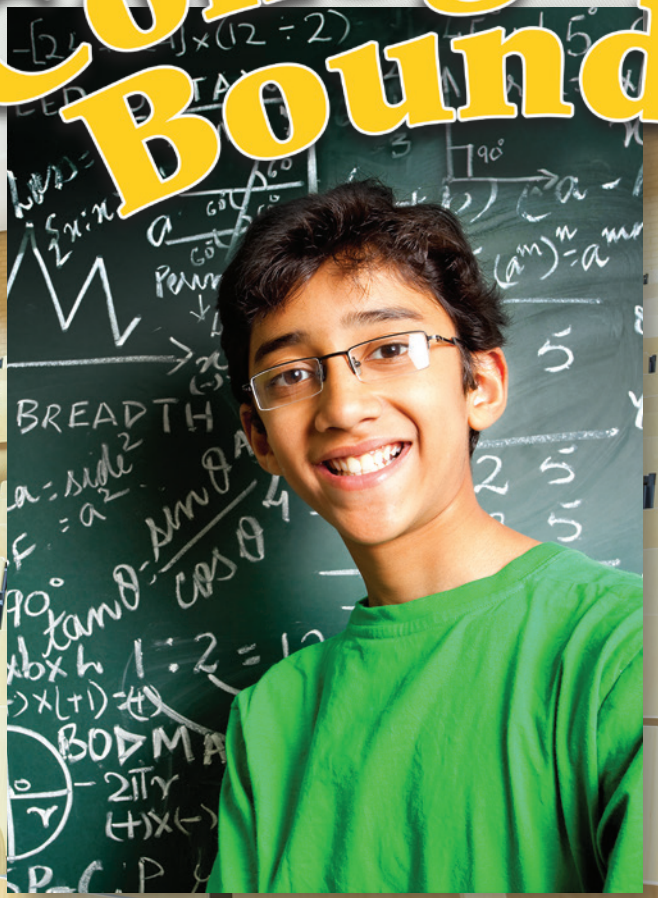
College Bound



Amy K. Hooper

Fantastic Lives

College Bound



Amy K. Hooper

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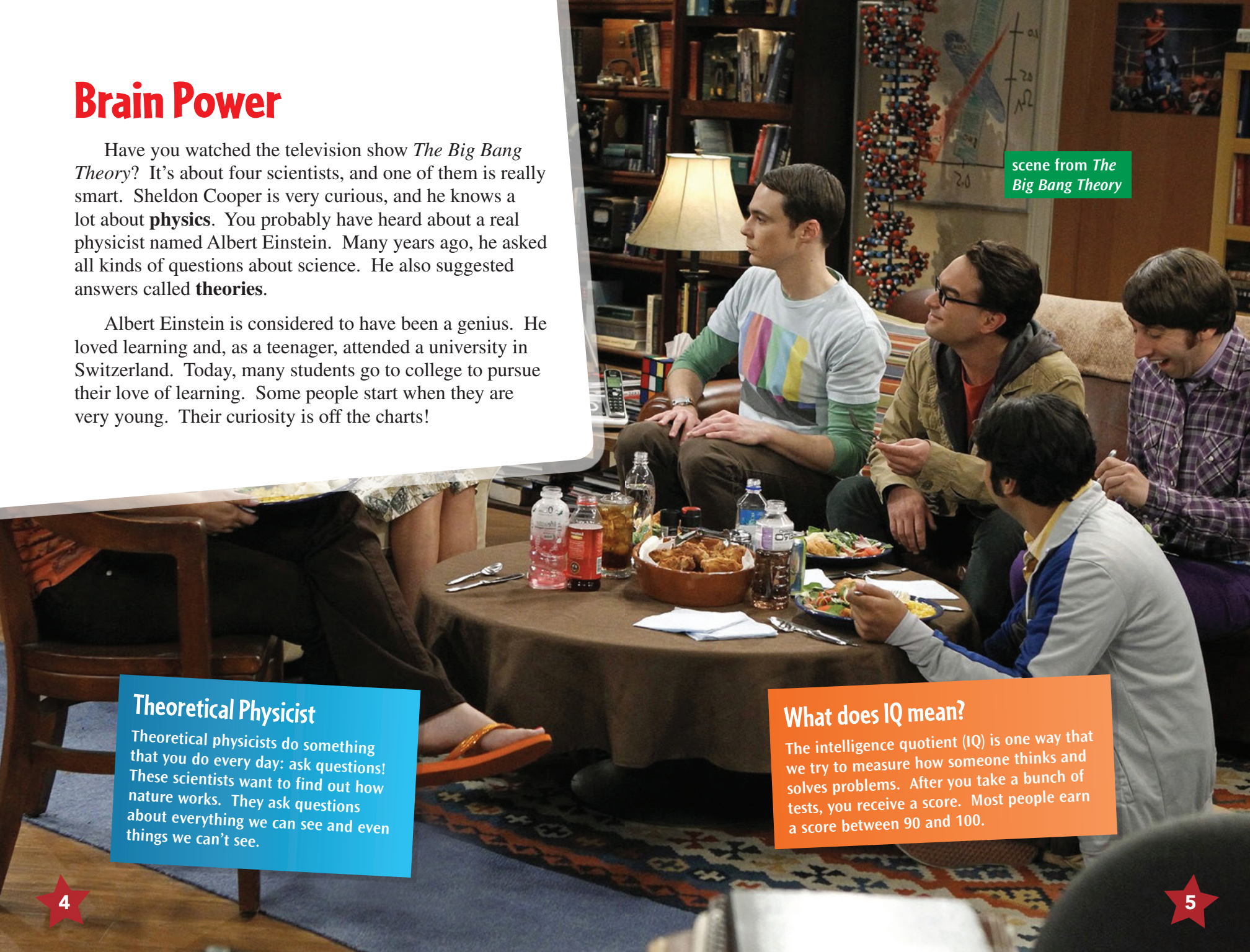
Table of Contents

Brain Power

Have you watched the television show *The Big Bang Theory*? It's about four scientists, and one of them is really smart. Sheldon Cooper is very curious, and he knows a lot about **physics**. You probably have heard about a real physicist named Albert Einstein. Many years ago, he asked all kinds of questions about science. He also suggested answers called **theories**.

Albert Einstein is considered to have been a genius. He loved learning and, as a teenager, attended a university in Switzerland. Today, many students go to college to pursue their love of learning. Some people start when they are very young. Their curiosity is off the charts!



scene from *The Big Bang Theory*

Theoretical Physicist

Theoretical physicists do something that you do every day: ask questions! These scientists want to find out how nature works. They ask questions about everything we can see and even things we can't see.

What does IQ mean?

The intelligence quotient (IQ) is one way that we try to measure how someone thinks and solves problems. After you take a bunch of tests, you receive a score. Most people earn a score between 90 and 100.

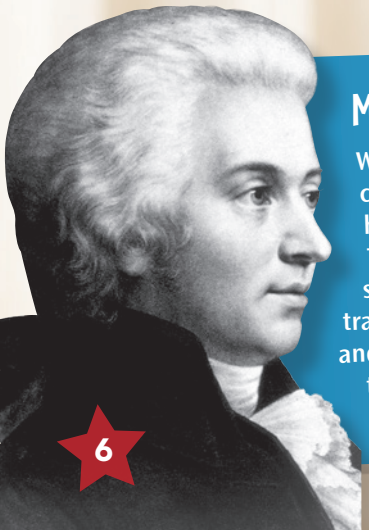
Young Geniuses

Who are these young students who graduate early from high school and earn college degrees? You might have more in common with them than you might think.

In this book, you'll meet six brilliant students. On page 16, you can read about Gregory Smith, who earned a diploma from a public high school in Florida when he was 9 years old.

Some of the featured students were homeschooled. Belicia Cespedes liked studying at home because she could learn as quickly as she wanted. Her story is on page 32.

Wherever these students learned, they also played sports, hung out with friends, and played musical instruments. Sho Yano began writing classical music on the piano by the age of 5. His story is on page 36. Yano isn't the only smart one in his family. His sister earned a biology degree at the age of 13.



Musical Genius

Wolfgang Amadeus Mozart is considered a child **prodigy**. When he was three years old, he could play chords on the **harpsichord**. Two years later, he was composing his own songs. As a child and into his teens, he traveled Europe playing concerts for royalty and nobility. He went on to become one of the most famous pianists, violinists, and composers in history.

Other scholars have super smart brothers and sisters, too. Anne-Marie Imafidon is a math whiz and is one of five remarkably bright siblings. You can read about her on page 24.

Team sports, such as soccer, appeal to Moshe Kai Cavalin, who also practices martial arts and has won competitions. Cavalin started college when he was only 8. His story is on page 20.

Another homeschooled scholar, Polite Stewart Jr., also practices martial arts. He finished college at 18, the age most students start college! You can read Stewart's story on page 28.

No matter what you try to do, a big factor is hard work. If you really focus on a subject, you can learn so much!

In 1952, Hopper works on a computer.

Maybe not "Genius"

It's not just intelligence that drives these young geniuses. They also share a trait: **perseverance**. As Albert Einstein said, "Genius is one percent talent and 99 percent hard work."

Grace Hopper

This math whiz became a computer programmer while she was in the military. In the 1940s, Hopper began working on computers during World War II. Now, there's an annual event named after her, where women from around the world talk about technology.

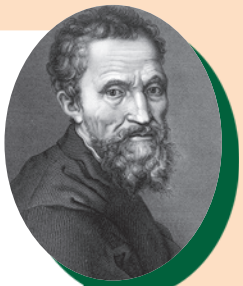
DIG DEEPER

Really Smart Thinkers

This list includes some people who have found answers or created art that is important today.

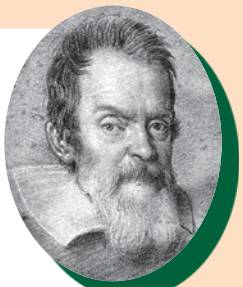
Ibn Al-Haytham: born 965
in Iraq (math and science)

Al-Haytham is famous for his work in how the eye works. His picture is on an Iraqi bill that is used today.



Michelangelo: born 1475
in Italy (painting, sculpture, architecture)

Michelangelo is considered one of the greatest artists of all time. His masterpieces are among some of the most famous works of art in existence.



Galileo: born 1564
in Italy (science)

Galileo created a telescope that let scientists study other planets. He also discovered four of Jupiter's moons.

Sor Juana Ines de la Cruz: born 1651
in Mexico (literature)

Sor Juana taught herself languages, philosophy, math, and history. She lived her life as a nun and is now known as the first feminist to be published.

Clara Schumann: born 1819
in Germany (pianist, composer)

Schumann did not speak until she was four years old, but had mastered the piano by the age of seven. She began composing when she was 10. Schumann was one of the first pianists to play from memory while performing.

Wole Soyinka: born 1934
in Nigeria (literature)

In 1986, Soyinka became the first African to be awarded the Nobel Prize for Literature.

College Life

Imagine if you started taking classes at a college campus away from home right now. What would that be like? How would you feel if you were a lot younger than everyone else?

Advice and Activities

In some cases, a young scholar might go to class with a parent or another adult sitting nearby. For other prodigies, taking one course to start sometimes helps ease the transition to college.

Other adults also might help a younger student. Some professors act as mentors and meet with these young students regularly. Professors often ask about how the students are doing in their classes as well as about their lives outside school.

Different Degrees

There are different kinds of college degrees.

- Associate's degree—usually finished in 2 years
- Bachelor's degree—usually finished in 4 years
- Master's degree—earned after a bachelor's degree; finished in 2–3 years, but time may vary
- Doctoral degree—earned after a master's degree; time to finish varies

THINK LINK

- How do you define *genius*?
- Why is curiosity important?

Quirky Clubs

Some colleges offer unique clubs. At the Massachusetts Institute of Technology, there is a club for underwater hockey! It's played at the bottom of a pool with a puck and short stick. The University of Michigan is known for its Squirrel Club. Members meet a couple of times a week to feed peanuts to squirrels on campus. The squirrels will take the nuts right from a feeder's hand!

Young students have opportunities to be a part of college life. Joining clubs is a great way to get involved on campus. Clubs range from academic pursuits, such as mock trial, to social activities, such as ballroom dancing. Some groups are part of a short-term service project or help plan a campus event. Students can also be research assistants for professors in their area of study.

Sadly, some parts of college may not be positive. Strangers might write mean comments about young scholars on social media sites. Others might say cruel things directly to these students. And some people do not want to hear from gifted but younger thinkers in their classes or on campus. Bullying and **intimidation** are not acceptable in any setting.

Teams battle during an underwater hockey match.

You Are Under Oath

Mock trial clubs are intended to teach students about the judicial system. Teams from around the country compete against each other. There are usually six members on a team. Three members act as lawyers, and the other three are witnesses.

Brains and Compassion

When he was 10 years old, Gregory Robert Smith started going to a private college in Virginia. His classmates were at least seven years older than he was. He earned a degree in math when he was 13. Then, he finished more difficult degrees in math and biology.

Smith earned his fourth degree when he was 26. He started working in a laboratory so he could study **genes** and create better medicines.

In the Public Eye

Smith's life in the public spotlight began early. As a young boy, he talked with many people about children's rights around the world.

Computational Biology

In 2009, Smith earned his master's degree in computational biology. This field of study combines computers and biology. It began in the 1950s. Scientists use computers to study test results from experiments. They use the results to help answer questions.

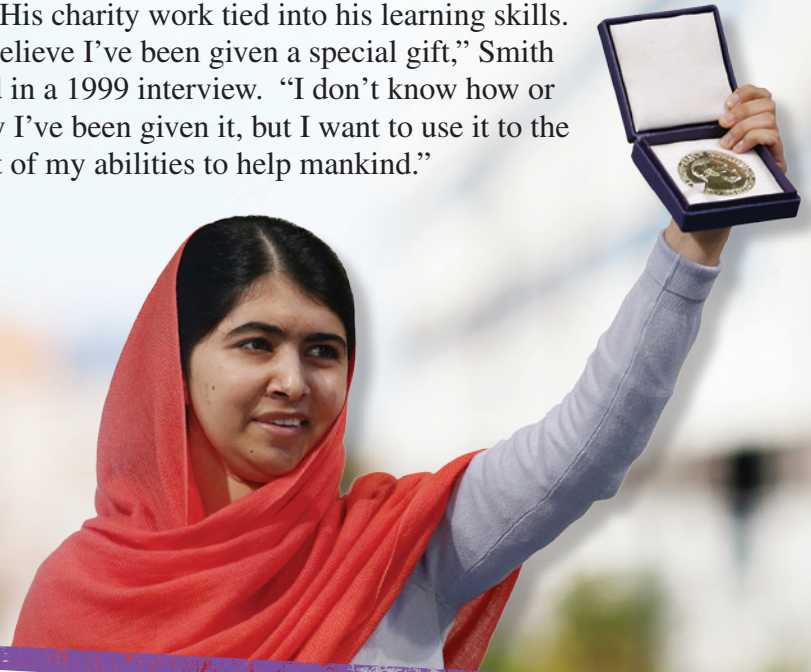
Nobel Peace Prize

Alfred Nobel, a Swedish man, created the Nobel Peace Prize in 1901. The winner of the award is selected by a committee in Norway. The winner is called the Peace Prize **Laureate.**

Gregory Smith

Smith spoke about children's safety and health. He went to events like the United Nations Special Session on Children. During his travels and speeches, Smith met world leaders. He met Nelson Mandela from South Africa and Mikhail Gorbachev from the former Soviet Union. Smith wanted people in power to pay more attention to children. That's why he spoke at the "Say Yes for Children" campaign, which began in 2002.

His charity work tied into his learning skills. "I believe I've been given a special gift," Smith said in a 1999 interview. "I don't know how or why I've been given it, but I want to use it to the best of my abilities to help mankind."



Speaking up for Education

In 2014, Malala Yousafzai (mah-LAH-lah yoo-sahf-ZAY) won the Nobel Peace Prize. At 17, she was the youngest person to win the award. She is an activist for children's access to education.

As of 2017, Smith is researching genes to produce better medicines.

Model United Nations

In 1945, world leaders created the United Nations. Their purpose was to work together toward peace. High school students can try their hand at promoting peace in a program called Model United Nations. They learn about the ways that political leaders work on problems that affect everyone.

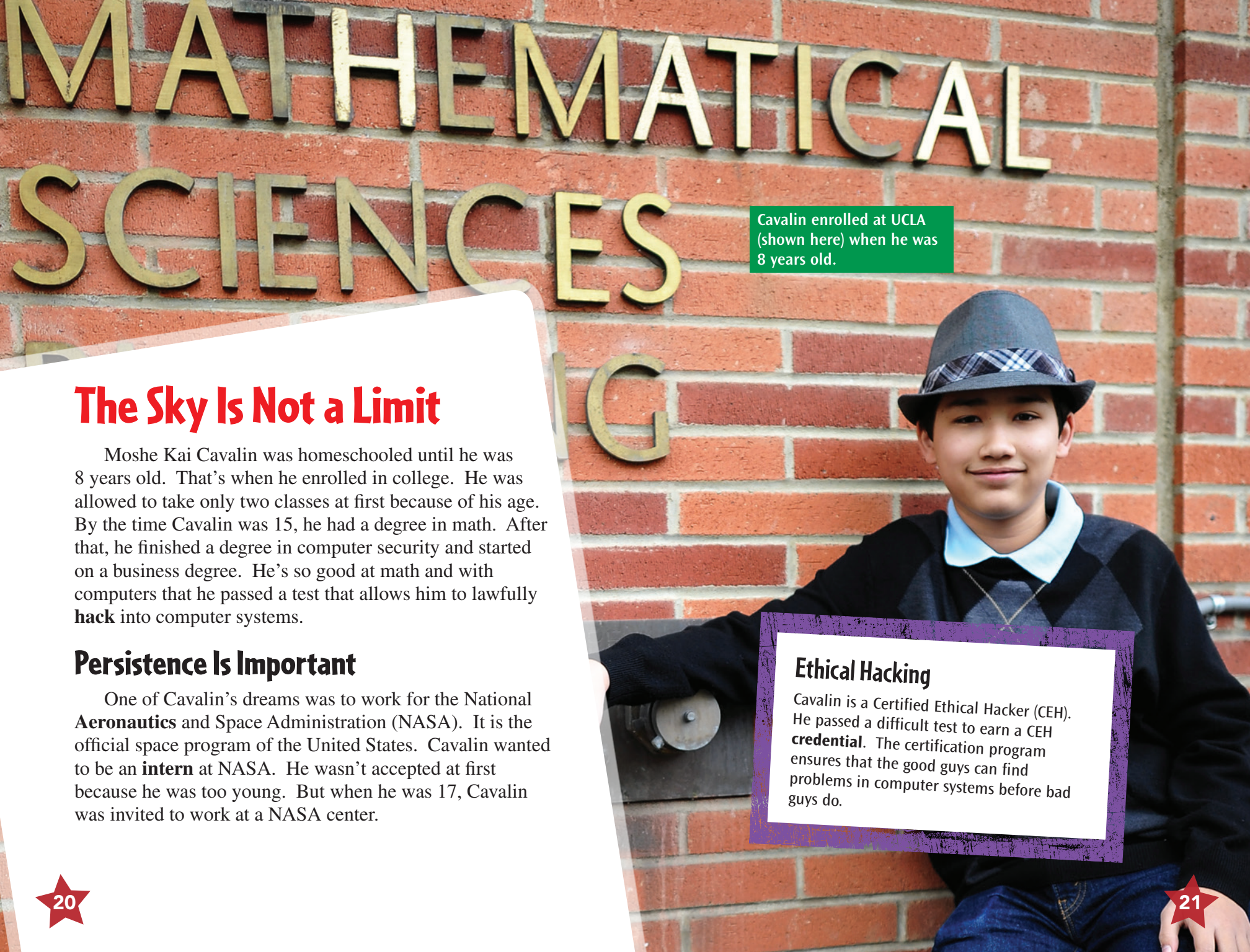
The Sky Is Not a Limit

Moshe Kai Cavalin was homeschooled until he was 8 years old. That's when he enrolled in college. He was allowed to take only two classes at first because of his age. By the time Cavalin was 15, he had a degree in math. After that, he finished a degree in computer security and started on a business degree. He's so good at math and with computers that he passed a test that allows him to lawfully **hack** into computer systems.

Persistence Is Important

One of Cavalin's dreams was to work for the National **Aeronautics** and Space Administration (NASA). It is the official space program of the United States. Cavalin wanted to be an **intern** at NASA. He wasn't accepted at first because he was too young. But when he was 17, Cavalin was invited to work at a NASA center.

Cavalin enrolled at UCLA (shown here) when he was 8 years old.



Ethical Hacking

Cavalin is a Certified Ethical Hacker (CEH). He passed a difficult test to earn a CEH **credential**. The certification program ensures that the good guys can find problems in computer systems before bad guys do.

Cavalin worked at NASA for a year. He worked on computer programs that keep airplanes and drones from hitting objects.

Successful Author

In 2011, Cavalin wrote his first book, *We Can Do*, to help students see how he learned to study. In the book, he outlines how anyone with **discipline**, focus, and determination can succeed in school.

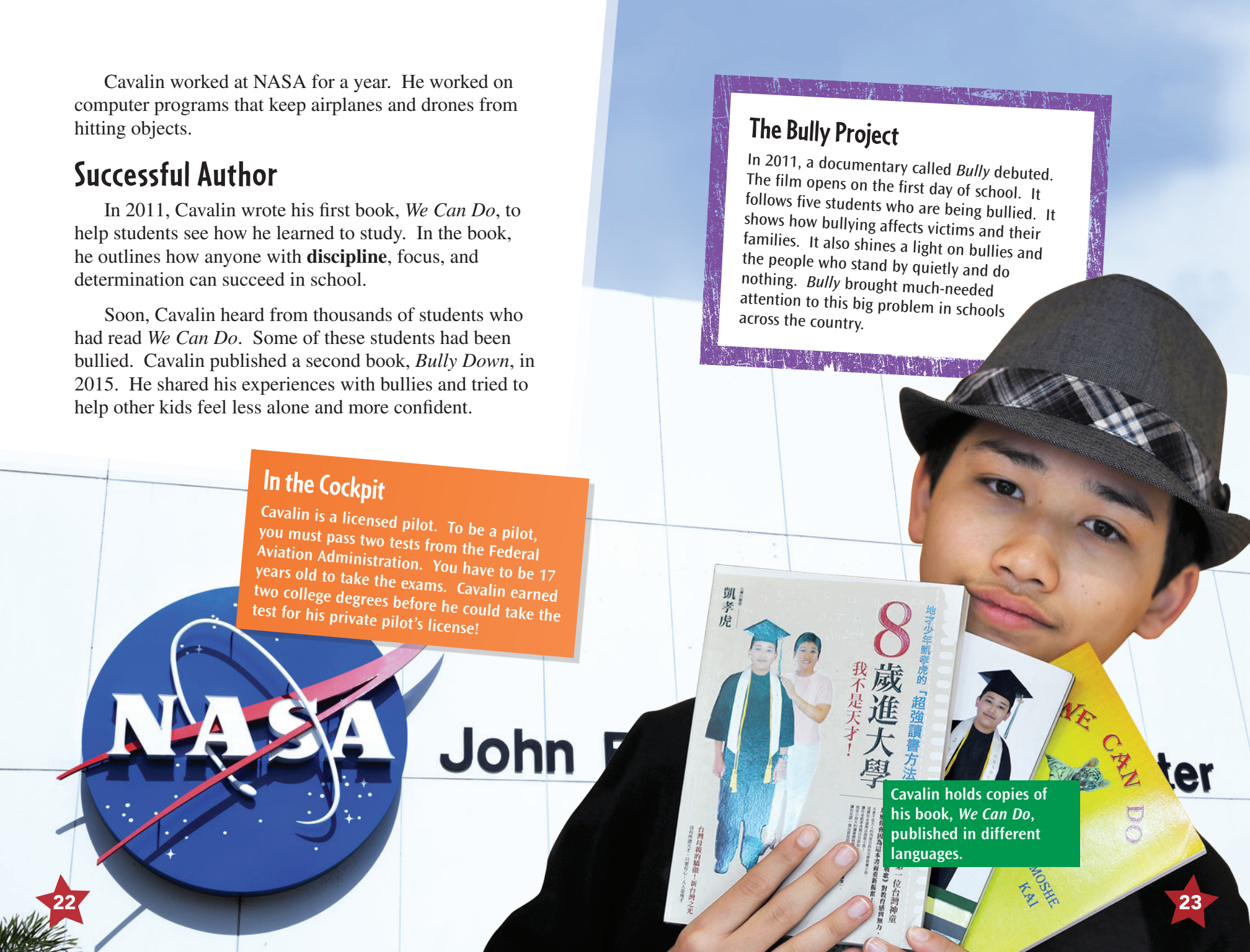
Soon, Cavalin heard from thousands of students who had read *We Can Do*. Some of these students had been bullied. Cavalin published a second book, *Bully Down*, in 2015. He shared his experiences with bullies and tried to help other kids feel less alone and more confident.

In the Cockpit

Cavalin is a licensed pilot. To be a pilot, you must pass two tests from the Federal Aviation Administration. You have to be 17 years old to take the exams. Cavalin earned two college degrees before he could take the test for his private pilot's license!

The Bully Project

In 2011, a documentary called *Bully* debuted. The film opens on the first day of school. It follows five students who are being bullied. It shows how bullying affects victims and their families. It also shines a light on bullies and the people who stand by quietly and do nothing. *Bully* brought much-needed attention to this big problem in schools across the country.



Cavalin holds copies of his book, *We Can Do*, published in different languages.

Adept at Maths

Anne-Marie Imafidon lives in England. In this part of the world, people refer to math as *maths*. And maths is just one of the subjects that Imafidon loves. When she was 10, she passed two tests in maths and technology that most British students take when they're 16.

When she was 11, Imafidon passed harder tests in computing. In 2003, she received an award to study maths in the United States. After returning to Britain, she earned another degree in maths and computer science by the time she was 20.

A Role Model

Imafidon often says she likes maths, technology, and helping others. In fact, she helped create a program called STEMettes. It supports British girls who want to learn about science, technology, **engineering**, and math (STEM). It offers activities and helps girls talk to mentors. The program has earned awards, too.

pictured from left to right: Samantha, Peter, Anne-Marie, and Paula Imafidon

Her Passion for Tech

"One of the main reasons why I love technology and why I run STEMettes is because I'm a really creative person, and technology allows me to be really creative."— Anne-Marie Imafidon

Smart Siblings

Imafidon has three sisters and a brother. They are also incredibly smart. They are known as "Britain's Brainiest Family!"

Imafidom has also received awards. In 2017, the British government gave her the Member of the Order of the British Empire (MBE). She was given the award for all of her work with young women. Now, she can show off that honor by putting those initials after her name—Anne-Marie Imafidon, MBE.

Why STEM?

Fewer women than men work in STEM jobs. That's part of why Imafidon wants to encourage girls as young as 5 to think about technical careers.

Some of the most popular STEMette events are **hackathons**. Girls spend a day or two learning and writing computer codes.

"With STEMettes, we try to suspend reality," Imafidon says. "Normally, you might not see 50 girls all coding or building or investigating. But when you're with us, it's going to be the most normal thing ever."

Ada Lovelace

In 1843, Ada Lovelace translated an academic article from Swiss to English and added her own notes. In this work, she wrote about codes using symbols, letters, and numbers to be used in a device known now as the computer. She died in 1852 with little recognition. But today she is known as the first computer programmer. Ada Lovelace Day is the second Tuesday of October.

Imafidon smiles proudly after receiving her MBE.

Royal Rewards

The MBE is one of three awards created by King George V. He introduced them in 1917 as a way to reward soldiers and civilians for their contributions during World War I. The highest award is the Commander of the Order of the British Empire (CBE). Next is the Officer of the Order of the British Empire (OBE). People can now receive them for a variety of reasons.

Engineering the Future

The first thing to know about Polite Stewart Jr. is that his first name is pronounced "POH-leet." The second thing to know about this Louisiana native is that he really likes science! He earned a degree in physics from Southern University Baton Rouge when he was 18 years old. He later returned to that school to finish degrees in two branches of engineering.

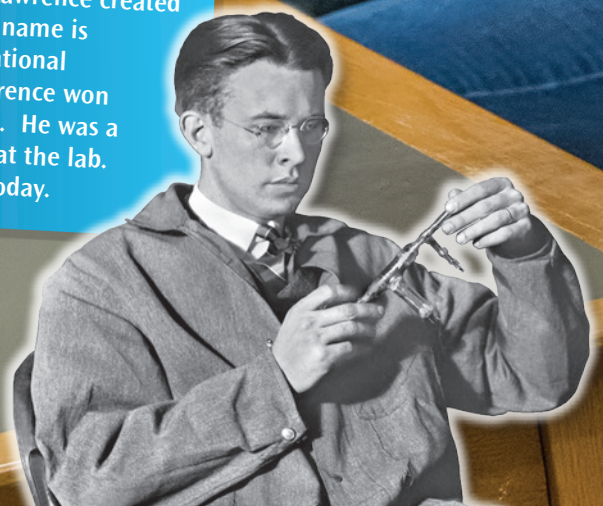
At Home in the Lab

Stewart has spent a lot of time in labs around the country. At 19, he went to work at the Berkeley Lab in Berkeley, California. He was one of the lab's youngest employees ever. Stewart worked with X-rays and on different projects. He enjoyed working in an environment where he felt he belonged. "I've never felt normal before. I've never felt not different," he said. He stayed at the lab for two years before going back to school in Louisiana.

Polite Stewart Jr.

Berkeley Lab

In 1931, Ernest Orlando Lawrence created the Berkeley Lab. Its full name is the Lawrence Berkeley National Laboratory. In 1939, Lawrence won the Nobel Prize in physics. He was a big believer in teamwork at the lab. That mind-set continues today.



Another Physics Fan

When he was a young student, Einstein began asking lots of questions. As a teenager, he became very curious about light and magnetic fields. He won a Nobel Prize for physics in 1921.

During the summer, Stewart returned to the West Coast. This time, he worked in a lab in the state of Washington. He was an engineering intern at Pacific Northwest National Laboratories. Many years ago, NASA asked that lab to test some of the materials collected on the moon by American astronauts. This lab also helped create the process for making compact discs. Its motto is "Discovery in Action." That sounds perfect for a curious person like Stewart.

What's Next?

Stewart says he wants to work as a **biomedical** engineer. In this field, he can combine his engineering education with medicine. Stewart might create **health care** equipment that can help many people stay healthy and enjoy life.

Moon Dust

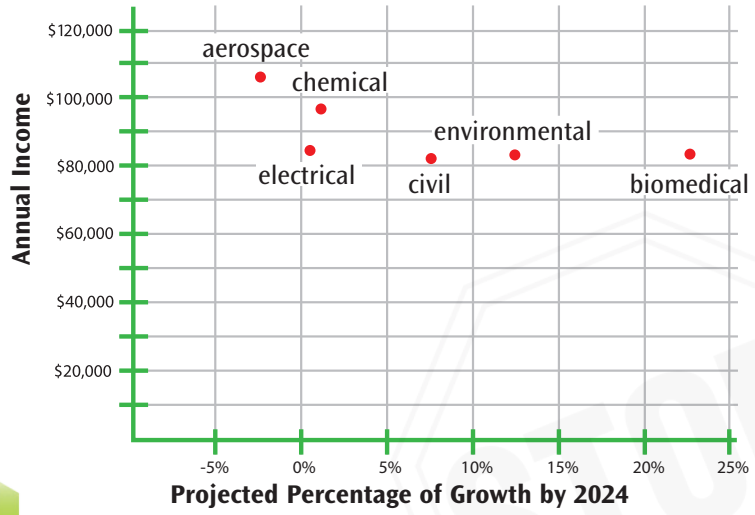
In 1969, American astronauts walked on the moon for the first time. They came back to Earth with pieces of the moon's surface. These pieces were tested for **radioactive** atoms.

STOP! THINK...

The table below shows salaries for the main fields of engineering and how much those fields are expected to grow by 2024. Use the information in the table to answer the following questions.

- Which type of engineering job is projected to have the most job growth?
- Based on the salary and projected growth, which field of engineering would you choose to go into? Explain your reasoning.

Engineering Opportunities



Financial Whiz

Numbers always made a lot of sense to Belicia Cespedes when she was growing up. She graduated from high school at age 13. Then, she wanted to take some fun classes online. One of them was about bookkeeping. A bookkeeper keeps track of the money that a business spends and earns. And that's when Cespedes discovered her future career.

Cespedes earned a bachelor's degree in **accounting** and began working as an accountant. She later earned a master's degree in accounting.

A Big Certificate

Before Cespedes started working on her second degree, she studied to take four tests. If she passed all four exams, she would get a certified public accounting (CPA) license.

The Iceman

Many people know that Chuck Liddell, "The Iceman," is a former Ultimate Fighting Champion. He is trained in martial arts, kickboxing, and wrestling. What you may not know is that Liddell also earned a degree in accounting!

Belicia Cespedes

CPAs

CPAs help people with taxes and give advice to businesses. They even search for evidence of crimes. To stay up-to-date on current accounting procedures and trends, CPAs must continue taking classes.

The first time that Cespedes took the CPA tests, she did not pass. She studied more, took the tests again, and passed all four parts! At 17 years old, Cespedes became one of the youngest people in the world to earn a CPA license.

A Young Voice

Cespedes wants to show that young accountants are important in her **profession**. She is a member of several business organizations. She likes to encourage more young people who are interested in accounting to feel excited and to do their best. Cespedes often gives speeches at business events and shares photos and information on social media. She also writes articles and answers questions from readers.

One of her first jobs was as a **forensic** accountant at an important accounting firm. It has offices all over the world.

How to Catch a Con

When people hear the word *forensic*, they usually think of crime scenes on TV. Forensic accountants investigate crimes that deal with money. Many of the cases they work on deal with **fraud**, either by an individual or company. They analyze their findings and are sometimes asked to present them in court.

Famous Case

One of the most famous forensic accountants was Frank Wilson. He helped bring down crime boss Al Capone. Wilson and his team went through almost two million documents. They found three records that proved Capone didn't pay taxes on money he earned. Wilson tracked the person who wrote the records by analyzing the handwriting. Capone went to trial and was sentenced.

Kid Doctor

Sho Yano likes to go wherever his interests might take him. Born in Oregon, he lived in California and finished a college degree in Illinois at 13. Then, he started working on a degree in genetics. He also began taking classes to become a doctor.

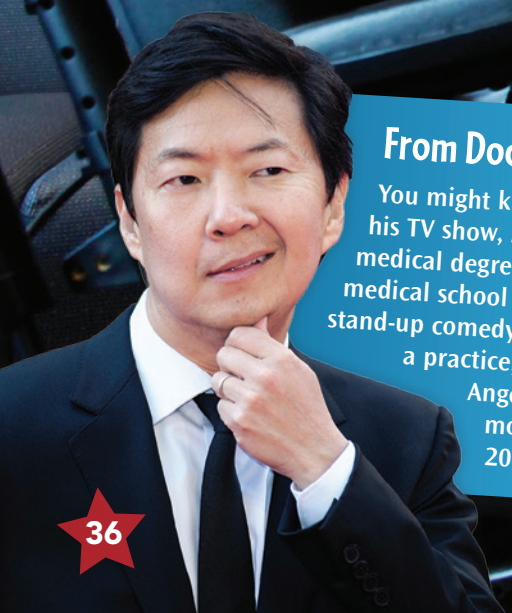
In the 1990s, there was a TV show called *Doogie Howser, M.D.* It was about a 16-year-old boy doctor. Some people at medical schools thought the show was very unrealistic.

Some people did not like the idea of a teenage student at their medical schools. Most students start medical school when they are 23. Many schools did not want to admit Yano.

The Piano Child

Yano is also an accomplished pianist. His mother noted his gift when he was just 3 years old. She became frustrated playing a waltz by Chopin. She left the room to take a break. She heard the waltz she was trying to play and ran back into the room. There was Yano, playing. By the next year, he was composing music on his own.

Yano checks a patient's reflexes while training to be a doctor.



From Doctor to Comedy

You might know actor Ken Jeong from his TV show, *Dr. Ken*. Jeong earned his medical degree in 1995. He went to medical school while he developed his stand-up comedy act. Instead of opening a practice, Jeong headed to Los Angeles. He's been in several movies. *Dr. Ken* aired from 2015 to 2017.

But a university in Chicago said yes to Yano. He began taking classes there when he was 12 years old. He earned a Ph.D. before earning his M.D. by the age of 21.

But Yano still had more to learn. Brand-new doctors need to finish an internship called a **residency**. Yano chose to study **neurology**. He wants to help children who have problems in their brains and spinal cords.

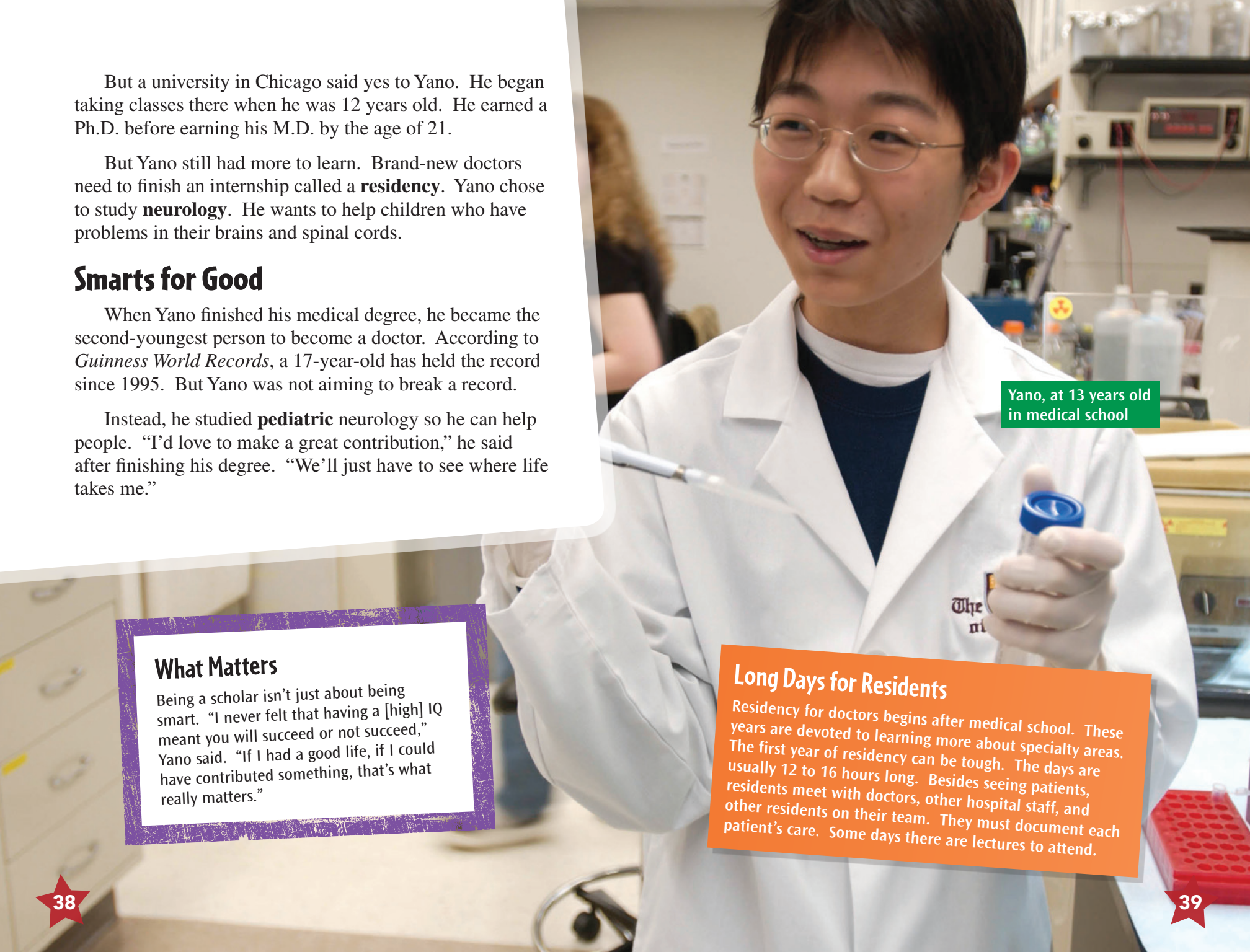
Smarts for Good

When Yano finished his medical degree, he became the second-youngest person to become a doctor. According to *Guinness World Records*, a 17-year-old has held the record since 1995. But Yano was not aiming to break a record.

Instead, he studied **pediatric** neurology so he can help people. "I'd love to make a great contribution," he said after finishing his degree. "We'll just have to see where life takes me."

What Matters

Being a scholar isn't just about being smart. "I never felt that having a [high] IQ meant you will succeed or not succeed," Yano said. "If I had a good life, if I could have contributed something, that's what really matters."



Yano, at 13 years old in medical school

Long Days for Residents

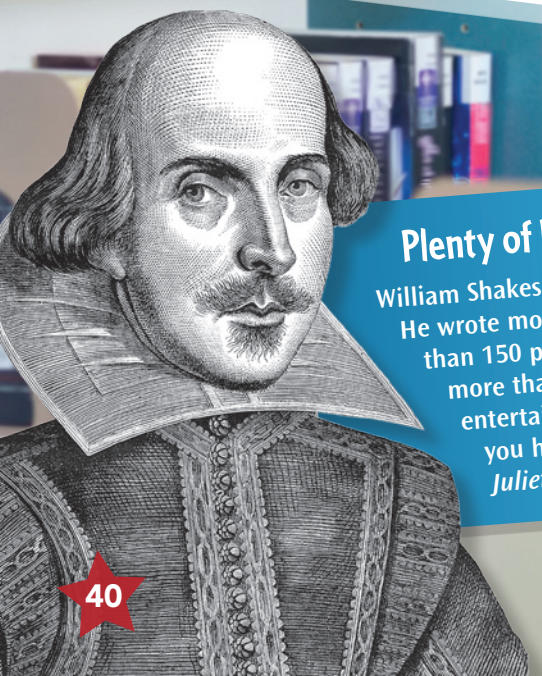
Residency for doctors begins after medical school. These years are devoted to learning more about specialty areas. The first year of residency can be tough. The days are usually 12 to 16 hours long. Besides seeing patients, residents meet with doctors, other hospital staff, and other residents on their team. They must document each patient's care. Some days there are lectures to attend.

Follow Your Curiosity

Very few people are as gifted as the young people profiled in this book. But the important thing to remember is that each of these young scholars pursued their passions. Some were interested in numbers while others enjoyed engineering and science.

That's what we all should do: find the things that we excel at and that we really enjoy doing. If we do this, studying these subjects in high school, college, and beyond will be more gratifying.

If you're not sure what your passion is, then keep searching. Explore different topics until you find the ones that make your brain say, "Yes! Let's definitely dive into this!" Then, see where your curiosity leads you!



Plenty of Plays and Poems

William Shakespeare was a **prolific** writer. He wrote more than 30 plays and more than 150 poems. He lived in England more than 400 years ago but still entertains millions of people. Have you heard of his plays *Romeo and Juliet* or *Hamlet*?

Ask Your Librarian

Someone who can help you find good information quickly is a librarian. Look for one at your school or a local library. They're waiting for a chance to give you a hand!

Glossary

accounting—the system or job of keeping financial records; similar to bookkeeping

aeronautics—a type of science about airplanes and flying

biomedical—related to biological, medical, and physical science

credential—a document that proves a person is qualified to do a certain job

discipline—the power to keep working on something even when it is difficult

engineering—types of jobs that use scientific methods to design and create big things or new products

forensic—using scientific methods to investigate or solve crimes

fraud—a crime in which a person takes something from another in a dishonest way

genes—parts of a cell that affect the growth of a living thing

hack—to secretly get access to files on a computer or computer network, sometimes not for a good purpose

hackathons—events where computer programmers work together, often to create good software

harpsichord—an instrument resembling a piano that has strings that are plucked

health care—the prevention or treatment of illness by different kinds of doctors

intern—a student or recent graduate who continues learning while working at a job

intimidation—making someone afraid by threats

laureate—someone who won an important prize or honor for achievement

neurology—the study of the nervous system and diseases that affect it

pediatric—related to the medical care of children

perseverance—the trait that allows someone to keep working even in difficult times

physics—a science about the way that heat, light, electricity, and sound act

prodigy—young person who is unusually talented in some way

profession—a type of job that requires certain training and skills

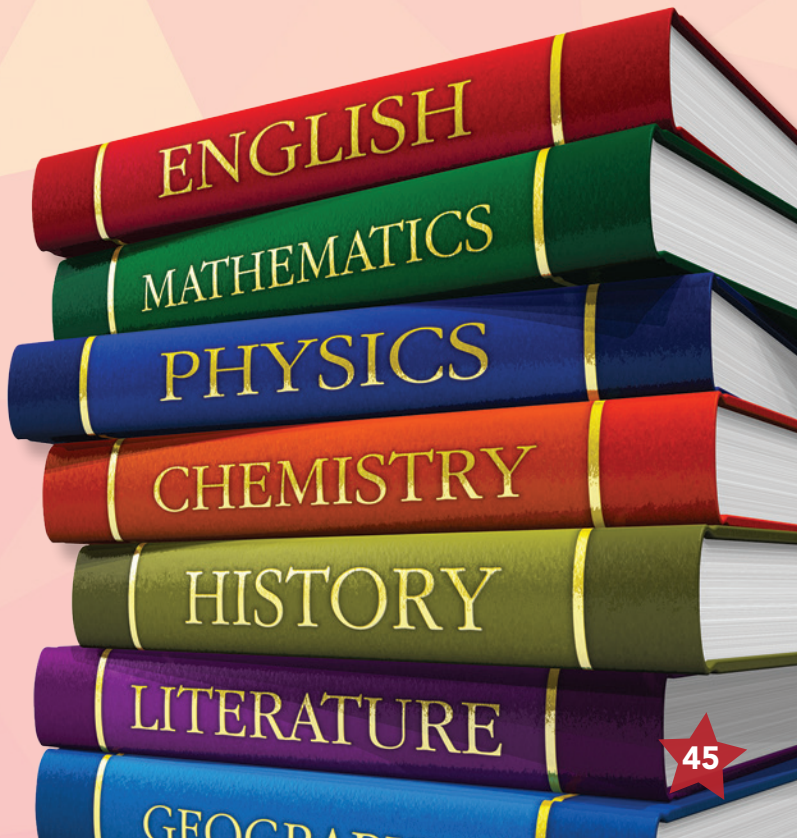
prolific—producing a large amount

radioactive—having a powerful, dangerous form of energy called radiation

residency—a time when a doctor works in a hospital to learn more about a type of medicine

theories—ideas that might be true but are not proven to be true

Index



Check It Out!

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Ree, Benjamin. 2016. *Magnus*. Moskus Film.

Websites

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TED. *Ideas Worth Sharing*. www.ted.com.

Try It!

Choose an interest or talent you have. It might be skateboarding, playing an instrument, or a subject at school. Put together a how-to book that teaches others about your amazing ability and how they, too, can develop it.

- What interest or talent do you have that you want to share with others?
- Think about the steps you had to take to improve and become an expert.
- Write and illustrate each step. You may also use diagrams and labels. Remember to use adjectives and adverbs that describe each step.
- Create a clever title for your work.
- Share with your classmates!

About the Author

College was one of Amy K. Hooper's favorite times of her life. She learned so much about many subjects, and she made many friends. Amy graduated with a journalism degree from a state university. Then, she kept learning about publishing from really smart coworkers and friends. She likes to travel because it introduces her to new places and ideas.

Reader's Guide

1. Would it be better to be smart or to be curious? Why do you think so?
2. Explain what you think are the advantages and the disadvantages to homeschooling.
3. What is something you feel passionate about? Why? What would be some potential jobs for your passion?
4. Identify three personality traits the students mentioned in the book possess. Explain how each one helped them succeed and adjust so early in life.