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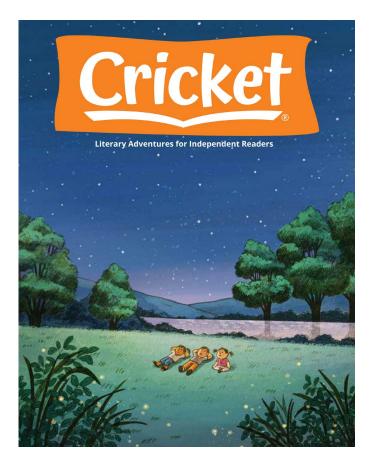
The fiction and nonfiction selections covered in this teacher guide present the challenges of living with a computer brain, keeping a group of energetic young campers busy, and pursuing a dream in spite of deterrence. Use the lessons and activities in this teacher guide to help students practice language arts skills while they consider how people face challenges and how they are changed by it.

CONVERSATION QUESTION

How do characters respond to challenges?

TEACHING OBJECTIVES

- Students will write arguments to support claims.
- Students will analyze how key individuals, events, and ideas develop and interact.
- Students will summarize key ideas and supporting details in a text.
- Students will conduct short research projects.
- Students will write narratives to develop imagined events.
- Students will write informative texts.



In addition to supplemental materials focused on core English Language Arts skills, this flexible teaching tool offers vocabulary-building activities, questions for discussion, and cross-curricular activities.

SELECTIONS

- Andromeda's New Brain
- Science Fiction, ~680L
- Toast Story

Contemporary Realistic Fiction, ~540L

Bringing Light to Dark Matter
 Biography, ~1170L

Andromeda's New Brain

pp. 5-9, Science Fiction

Use this story about a girl who gets a computer brain to motivate students to write an argumentative essay.



OBJECTIVES

- Students will read and analyze a science fiction story.
- Students will write arguments to support claims.
- Students will conduct short research projects.

KEY VOCABULARY

- relevant (p. 6) relating to a subject in an appropriate way
- intact (p. 6) not broken or damaged
- adequate (p. 7) good enough

ENGAGE

Conversation Question: How do characters respond to challenges?

Ask students to describe challenges faced by characters in favorite books and movies. Discuss whether challenges are realistic or fantastic. Present the title of the article, "Andromeda's New Brain" and ask students what kinds of challenges they would expect the characters in this story to face. Finally, tell students to highlight the challenges faced by the main character in the reading.

INTRODUCE VOCABULARY

Display and read aloud the vocabulary words and definitions. For each word, have students write a sentence that uses it correctly. Have students share their sentences with a partner. Then remind students to look for the vocabulary words as they read the story.

READ & DISCUSS

After students read the story, use these questions to prompt discussion:

- 1. What challenges does Andromeda face?
- 2. Why did her grandfather need to become her official guardian?
- 3. In what ways is Andromeda's new brain naïve?
- 4. What is the Continental Rearrangement of the 2100s?
- 5. How does Andromeda's brain help her with schoolwork?
- 6. What is a nex-screen?
- 7. Why is Andromeda frustrated by her new brain?
- 8. What are three reasons for lying?
- 9. Do you agree with what Granddad says about lying? Explain.

SKILL FOCUS: Write an Argumentative Essay

INSTRUCT: Ask students to explain what Granddad teaches Andromeda about lying. Then display this statement: *It's ok to lie if you have a good reason*. Ask students to share some good reasons for lying. Write these under the statement. Then display this statement: *Lying is always wrong*. Ask volunteers to come up with reasons that support the statement. Write them under the statement. Then tell students they will write an argumentative essay that answers this question: *Is it ever ok to lie?* Remind them that their essays should

- start with a claim that answers the question
- use reasons and evidence to support their claim
- present a counterargument
- disprove the counterargument

ASSESS: Have students work independently to conduct research as needed and then draft, revise, edit, and proofread their essays.

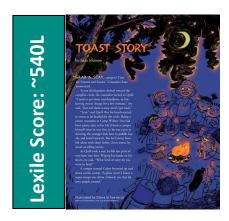
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Science Have students use resources to find out if robots can understand and feel human emotions. Tell them to find information on the current research and opinions about robots and emotions. Have students share what they learn.

Toast Story

pp. 11–14, Contemporary Realistic Fiction

Use this story about a camp counselor and his lively campers to give students practice in analyzing characterization.



RESOURCES

Characterization

OBJECTIVES

- Students will read and analyze a short story.
- Students will analyze how key individuals, events, and ideas develop and interact.
- Students will write narratives to develop imagined events.

KFY VOCABULARY

- blurted (p. 12) said something suddenly and without thinking about how people will react
- snickered (p. 12) made a short, quiet laugh in a way that shows disrespect
- scoffed (p. 12) talked about someone or something in a way that shows disapproval and a lack of respect

ENGAGE

Conversation Question: How do characters respond to challenges?

Point out that one type of challenge many people face at one time or another is being put on the spot, or forced to do something or make a decision without any warning. Give some examples, such as suddenly being asked to sing a song in front of an audience or answer a question in class. Then ask students to share times when they were put on the spot and explain how they responded. Finally, tell students to notice how the character in this story reacts when he is put on the spot.

INTRODUCE VOCABULARY

Display and read aloud the vocabulary words and definitions. For each word, have students write a sentence of dialogue that ends with the tags he/she/they *blurted*, *snickered*, *scoffed*. Have students share their sentences with a partner. Then remind students to look for the vocabulary words as they read the story.

READ & DISCUSS

After students read the story, use these questions to prompt discussion:

- 1. Why is Quill nervous around the campers?
- 2. Choose two or three campers and describe what you learn about their personalities.
- 3. How do the campers feel when Quill says he will tell a toast story?
- 4. Which details in the story stood out to you and helped you visualize different characters?
- 5. Whose part of the "Toast Story" was the best? The funniest?

SKILL FOCUS: Analyze Characterization

INSTRUCT: Remind students that the way a writer creates a character's personality is called characterization. Explain that there are different methods of characterization. Often, a character's personality is revealed through his or her own words, thoughts, feelings, and actions, as well as the words, thoughts, and reactions of other characters. Have students reread the first three paragraphs on page 11. Then have them turn and talk with a partner to identify what they learn about the different characters. Discuss responses as a class. Then distribute the *Characterization* worksheet to all students and discuss which characterization methods are used in these paragraphs on page 11.

ASSESS: Have students work in small groups to complete the worksheet by analyzing Quill's characterization. Invite students to share their responses with the class.

EXTEND

Write Challenge students to create a roast story, a coast story, a post story, or a story about a bloody toe that follows people around. Students may write the story, create a comic strip to show the story, or work with classmates to tell a group story. Invite students to share their stories with the class.

Toast Story

Characterization

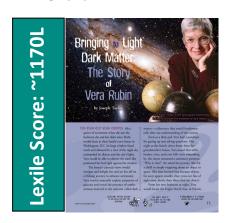
As you read "Toast Story," notice how the author uses the techniques below to develop Quill's personality. Record examples in the chart.

Quill's own words and actions	Words and actions of other characters
Quill's own thoughts and feelings	Thoughts and feelings of other characters
Quill's own thoughts and feelings	Thoughts and feelings of other characters
Quill's own thoughts and feelings	Thoughts and feelings of other characters
Quill's own thoughts and feelings	Thoughts and feelings of other characters
Quill's own thoughts and feelings	Thoughts and feelings of other characters
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Bringing Light to Dark Matter

pp. 15-21, Biography

Use this biography of American astronomer Vera Rubin to give students practice in analyzing and summarizing a short biography.



OBJECTIVES

- Students will read and analyze a biography.
- Students will summarize key ideas and supporting details in a text.
- Students will write informative texts.

KEY VOCABULARY

- unimpeded (p. 15) not slowed, delayed, or blocked
- intrigue (p. 15) to make someone want to know more about something
- plotting (p. 16) marking something on a map, graph, or chart
- *trailblazing* (p. 16) using new and better ideas for the first time
- dismissing (p. 17) deciding not to think about or consider something or someone

ENGAGE

Conversation Question: How do characters respond to challenges?

Ask students to share the names of real people (living/dead) that they admire because of the way they responded to challenges. Offer suggestions to get students started, such as Simone Biles and Malala Yousafzai. Then tell students to note the challenges that Vera Rubin responded to on her journey to become a great astronomer.

INTRODUCE VOCABULARY

Display the vocabulary words and definitions and read them aloud. Have students work in groups of five to write sentences using these words, with each group member taking on a different word. Have groups review their sentences and confirm that the words are used correctly. Invite students to share their sentences. Then tell students to look for these words as they read the story.

READ & DISCUSS

After students read the article, use these questions for discussion:

- 1. What adjectives would you use to describe young Vera?
- 2. What attitudes about women created challenges for Vera?
- 3. In what ways was Vera ahead of her time?
- 4. How did Vera's husband support her career?
- 5. How did Vera's life and work influence others?

SKILL FOCUS: Summarize a Biography

INSTRUCT: Explain that biographies usually have different sections that focus on particular areas of a subject's life, such as childhood, education, career, and legacy. Have students work on a group summary of the article. Divide "Bringing Light to Dark Matter" into the sections shown below. Organize the class into four groups and assign one article section to each group. Have groups read and discuss their sections and practice explaining the key ideas and details.

Section 1: p. 15 through 1st paragraph on p. 17 ("...stay away from science.")
Section 2: p. 17, 2nd paragraph ("Undeterred...") to end of p. 18
Section 3: p. 10 through accord to lock paragraph on p. 20 ("February 1970")

Section 3: p. 19 through second-to-last paragraph on p. 20 (...February 1970.") Section 4: p. 20, last paragraph to end of article.

ASSESS: In chronological order, have groups present an oral summary of their section by retelling the key ideas and details to the class. The other groups should listen, take notes, and prepare questions to ask. Allow time for questions and answers after each group's retelling.

FXTFND

Write Have students write a biographical sketch of a person they admire for the way they responded to a challenge. The person may be a relative or friend, someone famous or someone unknown. Tell students to highlight this challenge and the way the subject responded in their sketch. Students should also include: full name, date of birth, details about personality traits, family background, and accomplishments.