

# TEACHER'S GUIDE

## TRAPPED IN A VIDEO GAME

ROBOTS REVOLT

FREE Virtual  
Author Visit!

See page 11



DUSTIN BRADY

## TRAPPED IN A VIDEO GAME 3 ROBOTS REVOLT



By Tracy Edmunds, M.A. Ed.  
Reading With Pictures

Classroom Activity and Discussion Guide

The activities in this guide align with Next Generation English Language Arts Standards for grades 3–5.



Andrews McMeel  
PUBLISHING\*



## Trapped in a Video Game 3

Dustin Brady

AMP I Kids

Andrews McMeel Publishing

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**GRADE LEVEL: 3–5**

### CURRICULUM CONNECTIONS

Language Arts—Reading, Language,  
Science, Programming

### Content Standards

Language Arts

Common Core State Standards: [www.corestandards.org](http://www.corestandards.org)

## VOCABULARY

*Note: Page numbers denote the first appearance of each word.*

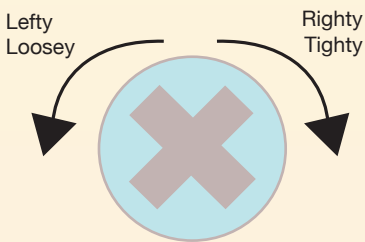
revolt (title)	navigated (55)	stall (130)
malfunctioning (1)	sewage (58)	rumble (130)
scepter (4)	illuminating (67)	lumbering (130)
strobe light (17)	containment (72)	pivot (133)
treason (23)	boomerang (77)	captor (139)
forbid (27)	furious (79)	negotiate (140)
melee (32)	state-of-the-art (88)	testimony (149)
dread (43)	short circuit (110)	recite (155)
sacrifice (45)	antigravity (111)	manufacturer (155)
cavern (47)	throttle (121)	function (158)
stalactite (47)	residential (123)	parameters (159)
shockwave (47)	abominable (125)	

# DISCUSSION QUESTIONS AND ACTIVITIES

## LANGUAGE ARTS

- Chapter 3 begins with, “Pitch-black. Hovering red eyes. Screeching, roaring, and clanking coming from thousands of evil aliens, monsters, and robots. If you know of a scarier situation, I’d love to hear it” (p. 17). Write a description of a situation that would be scarier to you! Take turns with friends reading your descriptions out loud and vote on whose is the scariest.
- Roger’s real name is Remote Onboarding Guide to Everything Robot (p. 29). So why do the kids call him Roger? What is an *acronym*? What acronyms do you know?
- When Sam, Jesse, and Mark are riding in the mine cart, Mark leaps out just before the final jump. Jesse calls this “Mark’s sacrifice” (pp.44—45). What is a *sacrifice*? Why did Mark jump from the cart? Does anyone else in this story make a sacrifice? Have you ever made a sacrifice for someone else, even a small one? Write a narrative (story) about a real or imaginary sacrifice.
- At the end of the book, “every news station in the country had descended...” (p. 146). Imagine you are a news reporter at the scene. Write a newspaper article or a transcript of an on-air news interview with one of the characters.
- In the story, Mark has been missing for a short time, but he has “lived” 80 years in the video game. At the end of the story, he finally gets to see his parents. What do you think he said to them?

## What is mnemonic?

- A *mnemonic* is something that helps you remember. The word *mnemonic* comes from an ancient Greek word meaning “remember.” The *m* at the beginning of *mnemonic* is silent, but you can remember how to spell it because *memory* starts with *m*. That’s a *mnemonic*!
    - When Sam is unscrewing the robot blaster, Jesse says, “Lefty loosey, righty tighty” (p. 53). This *mnemonic* helps you remember which direction to turn a screw or bolt. It tells you which way to turn from the **top** of the circle. It also works for light bulbs, bottle caps, or almost anything else that you turn to tighten or loosen.
- 
- Here are some other *mnemonics*:
    - To remember the difference in spelling between *principle* and *principal*, use the *mnemonic*, “The **principal** is your **pal**.”
    - **HOMES** is a *mnemonic* for the names of the Great Lakes: **H**uron, **O**ntario, **M**ichigan, **E**rie, and **S**uperior.
    - You may have heard this *mnemonic* for spelling: “*I before e, except after c.*” Be careful! This one doesn’t always work—English can be *weird*.
    - The “ABC” song is a *mnemonic* for remembering the order of the alphabet. What are some other *mnemonics* that you know? Pick something you want to remember and make your own *mnemonic*.
  - Sam is from the country of Australia. People in Australia speak English, but they use some words and phrases that we do not use in the U.S. Words and phrases used by some people who speak a language and not others is called *slang*.
    - Here are some examples of Australian slang:
      - Australians often refer to themselves as “Aussies.”
      - They say “G’day” when they meet.
      - They eat “brekkie” in the morning.
    - As you read the book, write down any Aussie slang that Sam uses and what you think it means. You should be able to use context to figure out what most of them mean. Do an Internet search for any you can’t figure out.
    - Do you use any slang? You might use slang that is spoken in the place you live, like Aussie slang, or slang spoken by a group, like teenagers or computer hackers. Make a slang dictionary defining your favorite slang words. Remember to keep it school appropriate!

## SOCIAL STUDIES

- As the kids are marking out their map, Jesse recognizes one area as “Amish country” (p. 116). He explains “The Amish don’t believe in electricity, so they mostly work on farms and make things out of wood and sell pies and stuff” (p.117). Research Amish religion and culture. Is Jesse’s description correct? Where do Amish families live? What is their history? How are their lives different from yours? What might the Amish think of robots building a giant rocket ship on their farmland?

## MATHEMATICS

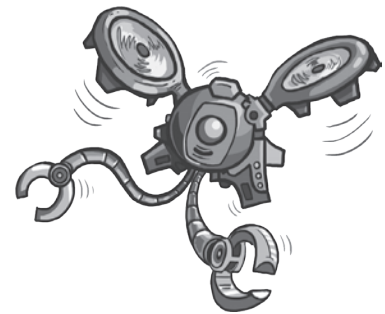
- When Sam and Jesse use the robot’s blaster to bring down the ceiling, Jesse says that the crashing “lasted for a good 30 seconds before everything went silent” (p. 69). Did the earthquake last exactly 30 seconds? Probably not. Jesse is *estimating*. He is making a guess based on past experience. An estimation is not an exact number, but it is good enough for the situation.

– How long is 30 seconds, really? Use a stopwatch or a watch with a second hand to stay silent and still for 30 seconds. Does it seem like a long time? Would it seem like a long time during an earthquake?

- While Jesse is trying to escape the Bionosoft basement, he uses a hoverboard as a shield, until it starts to blink. He knows it will disappear soon. He says, “I charged up the arm cannon while counting one-Mississippi, two-Mississippi to time the next link. When I got to three-Mississippi, I fired straight ahead” (p. 14). Why was Jesse saying “Mississippi” as he counted? This is a way to estimate how long a second is—it takes approximately one second to say “Mississippi.” Jesse doesn’t have a way to measure the time exactly, so he uses Mississippis to estimate the length of a second. Try counting 30 Mississippis while a friend keeps track with a clock or timer. How accurate is your counting of the seconds? Do you think counting Mississippis is a good tool for estimating time?

- Jesse estimates distance as well:

- “I got about 20 yards before I realized nobody was following me” (p. 37).
- “So your plan is to pour thousands of gallons of sewage onto my head?” (p. 64).
- “My hip moved half an inch” (p. 100).



- Look for other estimations of time, distance, volume, or other measurements in the book. How realistic do you think these estimates are? How do you use estimation in your everyday life?
- When Jesse is estimating length or distance, he uses different units of measurement. He estimates he ran 20 *yards*, but he estimates the ceiling was 100 *feet* high. What is the difference between yards and feet? How do they relate to each other? Convert Jesse’s estimates to the same unit of measurement and then compare them. Which is longer?
- Convert the following estimates from the story into the same unit of measurement, and then put them in order by length.
  - A. “I got about **20 yards** before I realized nobody was following me” (p. 37).
  - B. “When I looked up, I could just barely make out a thin stream of light **30 feet** above me” (p. 61).
  - C. “...the ceiling was at least **100 feet** high” (p. 77).
  - D. “I was at least **70 yards** away from the rocket...” (p. 137).
  - E. The cube buzzed and whirred and opened up like a Transformer until it was a **15-foot-tall** robot...” (p. 47).

(Answers in length order: E. 15 feet, B. 30 feet, A. 60 feet, C. 100 feet, D. 210 feet)

## SCIENCE & TECHNOLOGY

- In the cavern, Sam and Jesse are attacked by a robot that fires its weapon into the ground to create shockwaves (p. 47). What are shockwaves? How are shockwaves created during an earthquake? Research earthquakes and the Richter scale, which is used to measure the power of earthquakes. How does the scale work? What does *magnitude* mean? Do you think the robot's shockwave-producing weapon is possible in real life? Why or why not?
- As Jesse and Sam are making their way through the real-life levels of the game, they enter “an enormous cavern with stalactites on the ceiling” (p. 47). Stalactites become the key to their defeat of the attacking robot in this section of the game. Do some research on stalactites. What are they? How do they form? Research other speleothems (cave formations) and compare them to stalactites.
- When Mark is trying to log on to his computer, he remembers, “My dad always replaced the ‘a’s with ‘@’s and added a ‘1’ to the end of all his passwords. He thought it was more secure” (p. 109). What are passwords for? How do they protect you? Why do you think Mark's dad added those characters to his passwords? Do some research to find the latest expert advice on creating strong passwords. Was Mark's father following the best practices?
- *Engineering* is the science and technology of designing and building solutions to problems. When Jesse is trapped at the bottom of the deep pit, Sam and Roger are unable to find a rope long enough to rescue him (p. 64). What alternate solution do they engineer to get Jesse out of the pit?
- Many times engineers must think of more than one way to solve a problem. Once they have tried the most obvious solution (lowering a rope for Jesse), they must use “sideways thinking” to come up with other solutions (flooding the pit with sewer water to float Jesse up and out). How many other ways can you think of to solve Jesse's problem and get him out of the pit? What would you need to make each solution work? Examples: Find or build a ladder or tower for Jesse to climb out; look for rocket boots or a jet pack to help Jesse fly up out of the pit; build a trampoline so Jesse can jump out.
- The *Many Ways to Solve a Problem* page (at the end of this guide) challenges you to think of some ways to solve problems that Jesse and his friends might run into. How many ways can you think of to engineer a solution to these problems? Share your solutions with the class. Which solutions do you think will work best in the world of the book? Which solutions might be possible in real life?

Example solutions for the teacher:

1. Problem: Jesse and Sam need to get to the other side of a 10-foot wide, fast-flowing river. Possible solutions: Build a bridge; build a raft or boat; build a catapult to shoot themselves across; build a dam to stop the water.
  2. Problem: Roger is out of power and stuck on a rock ledge 30 feet above you. Rescue him! Possible solutions: Build a ladder or tower; use a jet pack or rocket boots; put a strong magnet on a long pole; fly a drone up to Roger.
- Note: Encourage creativity in students' initial ideas—even the most outlandish solutions are allowed! Then use class sharing and discussion to talk about adapting and modifying ideas into workable solutions.



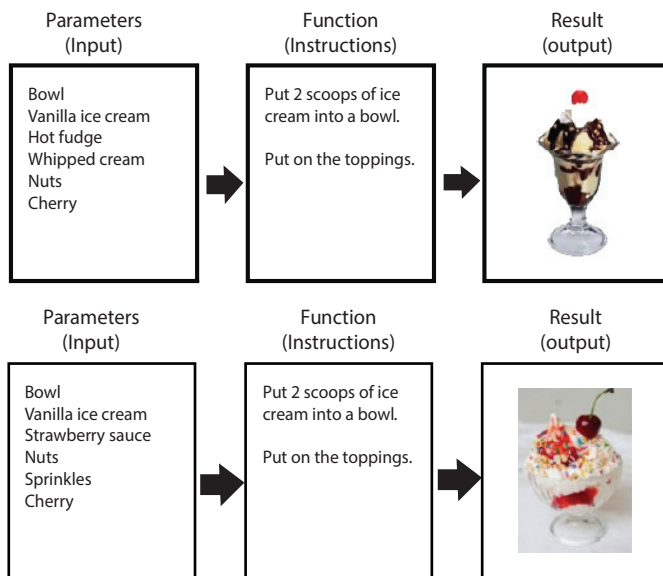
# COMPUTER PROGRAMMING

- The “More to Explore” section in the back of *Trapped in a Video Game: Robots Revolt* will help students begin to understand functions and parameters in coding. Once students have read the explanation and examples, distribute copies of the robot parts pages (pp. 160–163) and have students to put together robots according to the parameters and functions at the end of the “More to Explore” section (pp. 164–165). Then, challenge students to create their own parameters, exchange with a partner, and execute each other’s functions by “building” robots. Finally, have each student show the class their robot and have students name the parameters that went into the function that created the robot.
- Students can make their own functions as well, using the *Make Your Own Function* page at the end of this guide. They write what their function does in the *Function* box, name some parameters, and show the result. Then they create new parameters, use the same function, and show the new result.

- Computer Science Fundamentals courses from Code.org will allow you to teach the fundamentals of computer science, whether you have computers in your classroom or not:  
<https://code.org/educate/curriculum/elementary-school>.

- This video introduces functions:  
<https://www.youtube.com/watch?v=0eo0ESEX9DE>
- Here is a simple activity that teaches functions using beads:  
<https://studio.code.org/s/20-hour/stage/8/puzzle/1>
- An easy, fun lesson using parameters in songwriting:  
<https://code.org/curriculum/course4/13/teacher>
- The warm up activity in this lesson helps students think about the complexity of functions:  
<https://curriculum.code.org/csd-18/unit3/19/>

Example:



## ENGLISH LANGUAGE ARTS/LITERACY

**GRADE 3:****Reading**

Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. [CCSS.ELA-LITERACY.RL.3.1]

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

**Writing**

Write informative/explanatory texts to examine a topic and convey ideas and information clearly. [CCSS.ELA-LITERACY.W.3.2]

Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. [CCSS.ELA-LITERACY.W.3.3]

With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. [CCSS.ELA-LITERACY.W.3.4]

**Speaking and Listening**

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly. [CCSS.ELA-LITERACY.SL.3.1]

**Language**

Use knowledge of language and its conventions when writing, speaking, reading, or listening. [CCSS.ELA-LITERACY.L.3.3]

Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies. [CCSS.ELA-LITERACY.L.3.4]

Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies. [CCSS.ELA-LITERACY.L.3.4]

Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. [CCSS.ELA-LITERACY.L.3.5]

**GRADE 4:****Reading**

Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text. [CCSS.ELA-LITERACY.RL.4.1]

**Writing**

Write informative/explanatory texts to examine a topic and convey ideas and information clearly. [CCSS.ELA-LITERACY.W.4.2]

Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. [CCSS.ELA-LITERACY.W.4.3]

Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. [CCSS.ELA-LITERACY.W.4.4]

**Speaking and Listening**

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly. [CCSS.ELA-LITERACY.SL.4.1]

**Language**

Use knowledge of language and its conventions when writing, speaking, reading, or listening. [CCSS.ELA-LITERACY.L.4.3]

Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies. [CCSS.ELA-LITERACY.L.4.4]

Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. [CCSS.ELA-LITERACY.L.4.5]

**Mathematics**

Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. [CCSS.MATH.CONTENT.4.MD.A.1]

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 unit in terms of a smaller unit. [CCSS.MATH.CONTENT.4.MD.A.2]

## GRADE 5:

### Reading

Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. [CCSS.ELA-LITERACY.RL.5.1]

Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes. [CCSS.ELA-LITERACY.RL.5.4]

### Writing

Write informative/explanatory texts to examine a topic and convey ideas and information clearly. [CCSS.ELA-LITERACY.W.5.2]

Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. [CCSS.ELA-LITERACY.W.5.3]

Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. [CCSS.ELA-LITERACY.W.5.4]

### Speaking and Listening

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly. [CCSS.ELA-LITERACY.SL.5.1]

### Language

Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies. [CCSS.ELA-LITERACY.L.5.4]

Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies. [CCSS.ELA-LITERACY.L.5.4]

Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. [CCSS.ELA-LITERACY.L.5.5]

### Mathematics

Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real-world problems. [CCSS.MATH.CONTENT.5.MD.A.1] [CCSS.MATH.CONTENT.4.MD.A.1]

Next Generation Science Standards  
<http://www.nextgenscience.org>

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





Name \_\_\_\_\_ Date \_\_\_\_\_

### MANY WAYS TO SOLVE A PROBLEM

How many ways can you think of to solve each engineering problem? Write about and/or draw diagrams of your solutions, the materials you would need for each, and any possible problems you would have to overcome.

Problem: Jesse and Sam need to get to the other side of a 10-foot wide, fast-flowing river.

Solution	Materials Needed	Possible Problems

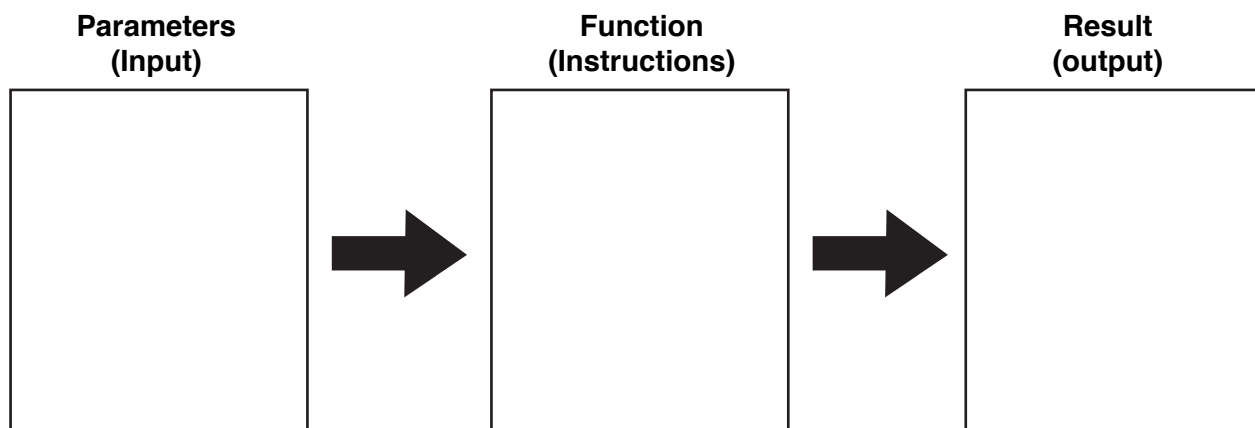
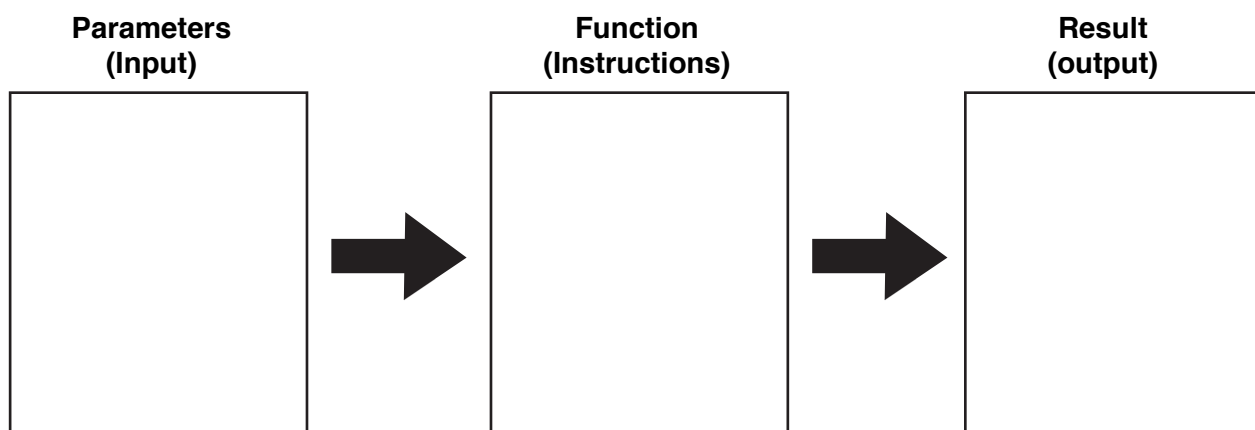
Problem: Roger is out of power and stuck on a rock ledge 30 feet above you. Rescue him!

Solution	Materials Needed	Possible Problems

## MAKE YOUR OWN FUNCTION

Directions: Think of a short set of steps to do something simple, like build a snowman or make an ice cream sundae. The simpler the better!

1. In the first *Parameters* box, write a list of the things that are needed.
2. In the first *Function* box, write step-by-step instructions. Keep it simple!
3. In the first *Result* box, write or draw what has been made or done.
4. In the second set of boxes, write a second set of parameters, the **same** instructions, and the new result.



## FREE AUTHOR VISIT

### THANKS FOR BRINGING MY BOOK INTO YOUR CLASSROOM!

I hope your students have had just as much fun reading it as I did writing it. One of the best things I get to do as an author is connect with classes that have read my book. If you've added *Trapped in a Video Game* to your classroom library or you've read it together as a class, I'd love to meet your students! Here's how:

1. Have your students complete the worksheet on the next page.
2. Upload your students' questions to [dustinbradybooks.com/index.php/interview](http://dustinbradybooks.com/index.php/interview).
3. I'll record my answers and send back a private video just for your class.

The "visit" will be 100 percent free and won't require any technology beyond the ability to show a YouTube video. Can't wait to see what your students come up with!

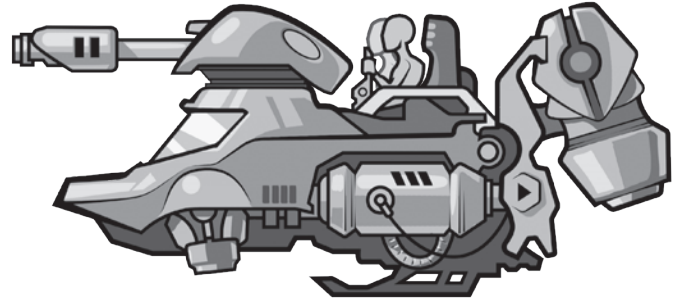
—Dustin Brady



# INTERVIEW AN AUTHOR

Name: \_\_\_\_\_

Grade: \_\_\_\_\_



## HERE'S YOUR CHANCE TO INTERVIEW DUSTIN BRADY, AUTHOR OF *TRAPPED IN A VIDEO*

To be a great interviewer, let your curiosity lead you, avoid “yes” or “no” questions, and get creative. It’s OK to cover the basics, but the best interviewers always try to think of at least one question that no one else has asked.

### QUESTIONS ABOUT WRITING

*Example: Where do you find inspiration for your stories?*

1. \_\_\_\_\_  
\_\_\_\_\_
2. \_\_\_\_\_  
\_\_\_\_\_

### QUESTIONS ABOUT *TRAPPED IN A VIDEO GAME*

*Example: How did you decide what the Full Blast game would be like after Jesse gets trapped inside?*

3. \_\_\_\_\_  
\_\_\_\_\_
4. \_\_\_\_\_  
\_\_\_\_\_

### QUESTIONS ABOUT THE AUTHOR

*Example: Do you have any pets? Would you rather be trapped in a video game or never play video games again?*

5. \_\_\_\_\_  
\_\_\_\_\_
6. \_\_\_\_\_  
\_\_\_\_\_