

# **TEACHER'S GUIDE**



## **INCLUDES:**

Discussion points, activities, and writing prompts to help educators use "Bronson Beaver Builds a Robot" as a classroom read-aloud or as a selection for independent reading. Great for book clubs, too!





## ABOUT THIS GUIDE

## **Bronson Beaver Builds a Robot**

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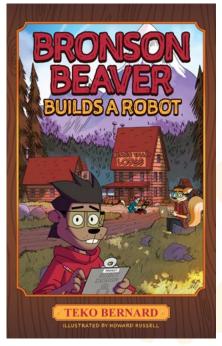
## **Grade Level 3-5**

#### **Curriculum Connections**

Reading • Writing • Speaking & Listening • Language

#### **Thematic Connections**

Inventions • Resourcefulness • Friendship • Family Responsibility • Honesty • Cooperation • Determination • Creativity



## **Overview**

This book will instill in young readers a spirit of creativity and invention and an appreciation for nature and increase their interest in STEM. It will also teach the importance of honesty, responsibility, hard work, and friendship in a fun way.

Bronson Beaver is a 13-year-old master builder and aspiring inventor who has been rigidly groomed since birth to work hard and someday take over his family's historic wilderness resort lodge. But for the first time in his life, Bronson attempts to ditch hard work. He secretly builds a robot to do his chores before his family's annual pancake festival event. So he can instead play in a high-stakes video game tournament with his fellow inventor friends Myron Mink and Franny Fox, hoping to win its large cash prize so they can finally build their dream workshop.

But when his robot's wires get crossed, it unwittingly creates more work and trouble for Bronson and threatens to ruin his family's big event and any chance of making his dream a reality. It will require much help from friends and family to overcome the robot's damages, save the event, and keep their hopes and dreams alive. Ultimately, Bronson learns the importance of family, friendship, responsibility, and determination.

Students will enjoy and relate to Bronson's imagination and exploits, and the book's themes and subject matter will inspire class discussion and individual writing exercises.

## **BEFORE YOU READ**

- 1. Take a close look at the cover of Bronson Beaver Builds a Robot. What do you see? Describe the characters. Can you guess what the story might be about? What clues can you find in the cover art to support your prediction?
- 2. Read the text on the back of the book. What do you learn about the story from this blurb? What questions does it raise about the story?
- 3. Open the book and read the chapter titles. Do the titles give any further information regarding what the book might be about?
- 4. Using all this information, can you make any predictions about what might happen in the book? List at least five things you hope to find out by reading the book.

## AFTER YOU READ

## Here are a few extension activities to further the learning and the fun!

1. Several themes run through *Bronson Beaver Builds a Robo*t.

Responsibility	Family	Friendship	Hard Work	
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Choose one of these themes on which to base a 500-word essay. What about this theme can readers take away from Bronson Beaver Builds a Robot?

- 2. Pick a scene you enjoyed or remembered well from one of the chapters. Re-write the scene from another character's first-person point-of-view.
- 3. Create a book trailer for Bronson Beaver Builds a Robot to convince others to read the book.
- 4. The end of the book leaves room for a sequel. Can you predict what adventure Bronson and his friends will have next? Brainstorm possible scenarios and write a 500-word synopsis of your imagined sequel.
- 5. Have students work together to create a newscast about The Pancake Festival to present to their classmates. Students will write a script and take on the roles of anchors and on-site reporters. Students can create fun animal names for the characters and choose to interview characters and eyewitnesses. Videotape the final newscasts so that students can watch themselves on TV.
- 6. Bronson, his parents, Franny, and Myron, could not serve their customers using the Pancake Maker Pro, but they worked successfully together! How did each person contribute to the success?

# DISCUSSION QUESTIONS

## **Chapters 1-2**

- Using chapters one through two as evidence, who is Bronson? Draw an outline of a Using chapters one through two as evidence, who is Bronson? Outline a beaver figure representing Bronson on a large piece of paper. Write any known details about Bronson inside the outline. Outside of the outline, discuss and write any questions about Bronson that you might have.
- 2. Why does Bronson want to play in the video game tournament?
- 3. Why do you think Bronson wants to build a new workshop?
- 4. What event was getting in his way of playing in the video game tournament?
- 5. Why did Bronson decide to build a robot?
- 6. Why might they not care for the way Grandpa Jones conducts his life?
- 7. Why do Bronson's parents tell him he can't play in the video game tournament? Do you think this is fair? Why or why not?

## **Chapters 3-4**

- How much time did Bronson have to build his robot before bedtime?
- 2. What characteristics of Bronson's allowed him to build a robot successfully? (Inventiveness, curiosity, trusting his skill, determination, having the support of his friends, etc.)
- 3. What materials did Bronson use to build his robot? (Wood and junk parts)
- 4. Can you name any types of wood Bronson used to make his robot?

  (Maple body; aspen wood arms & legs; Willow wood hands & feet)
- 5. Can you name any junk parts Bronson used to build his robot?

  (Old computer parts, car parts, home appliances, electronic circuits, old springs, rusty pipes, metal gears, sheet metal, stereo speakers, and squeaky wheels)
- 6. How many of the ten chores did the robot complete on its first day?
- 7. What additional surprise chore did Bronson's dad ask him to do the night before the pancake festival?
- 8. Why did Bronson's dad say NO to using a robot to help with the chores?

# DISCUSSION QUESTIONS

## **Chapters 5-6**

- 1. What was the reason Robot messed up the final chore? What could Bronson have done to prevent the Robot's mistake?
- 2. What did Robot mistakenly bring back to the lodge instead of the flour he was supposed to get? Why do you think he was confused?
- 3. What did Robot destroy at the town market in the process? Why did Robot do this?
- 4. Why did the Pancake Maker Pro stop working?
- 5. What does Bronson try to do to fix the situation? What would you do?
- 6. What do Myron and Franny do when they find out? Why did they decide to help?

## **Chapters 7-8**

- 7. What were the three principles of the Beaver Way? (Be Brave, Be Productive, Be Helpful)
- 8. Who did Bronson's father tell Bronson he was just like? Why did Bronson like hearing this? (The founder and creator of the Beaver Valley Lodge, Barrett van Beaver)
- 9. What game did Bronson's ancestor Barrett van Beaver like to play?
- 10. Who all went to help repair the damaged sidewalk in the Town Market? Why did Franny and Myron want to go?
- 11. What jobs did Bronson's dad offer Franny and Myron at the Beaver Valley Lodge? Why did he offer them jobs?
- 12. How was Bronson able to finally build his dream workshop? (Hard work, patience, cooperation, persistence)
- 13. Why are Bronson and his friends excited about entering "The Invention City Challenge" youth team invention competition? (What does Franny want? What does Bronson want? What does Myron want?)

## MAKING CONNECTIONS

When Bronson decided to build a robot to do his chores, he chose not to handle his responsibilities. This choice led to unintentional problems out of his control due to not "doing the work with his own two paws".

#### Discuss responsibility with your class.

- 1. What is responsibility?
- Being accountable for what you do, your actions, and your behavior.
- Doing the right thing at the right time, so others can trust and depend on you.
- Don't make excuses or blame others.
- 2. How do the following demonstrate responsibility?
- Complete your homework and chores on time without being reminded.
- Follow-through on your commitments, even when you don't feel like it.
- Accept responsibility for your mistakes and learn from them.
- 3. How do you think Bronson can best demonstrate responsibility in the future?



## MAKING CONNECTIONS

Bronson is a genius in building machines that make work easier. His greatest invention is the Pancake Maker Pro which helped his family set a world record for serving the most pancakes ever.

Bronson is super excited about his new robot's potential to help with the Pancake Festival, but his father, who lives by *the beaver way* does not think it is a good idea.

Bronson must to try and persuade his father to let his robot help. Ask your students if they know what "persuade" means. If not, can they make any guesses?

#### **Discuss:**

- 1. What it means to persuade
- 2. Times or situations in which you might want to persuade someone (i.e., persuade your parents to let you stay up "one more minute.")

When you write to persuade, you try to convince the reader to agree. Your persuasive essay should:

- Tell the reader what you believe.
- Give the reader at least three reasons why you believe it.
- Have a good concluding sentence.

Students should pretend they are Bronson and write a persuasive essay to his parents called "Why my robot's help is a great idea!" using the following TREE structure:

T = Topic sentences	The topic sentence tells the reader (or parents, in this case) what you think or believe. Remember, you are writing from the point of view of Bronson.
R = Reasons	The reasons tell the reader (or parents, in this case) why you believe Robot can help. (Remember, you are writing as if you are Bronson.) Write at least 2-3 sentences supporting the three reasons. Use evidence directly from the text, when possible.
E = Ending	Wrap it up with a conclusive sentence.
E = Examine	Look closely. Does your essay have all the necessary parts?



## **Create Your Character**

Creating a believable character is part of writing a good story.

This exercise will help students understand how to create a unique character.

1.	Name & age of your character
2.	Where does your character live? (city, country, ranch, apartment building, castle, villa, boarding house, homeless, army camp, jungle, near an ocean)
3.	How many brothers/sisters does your character have?
4.	What does your character want more than anything else? Why?
5.	What is unique about your character?
6.	What are your character's secrets?
7.	What are your character's dreams?
8.	Who is your character's best friend?
9.	Who is your character's enemy?
10.	. What is your character's most funny or irritating habit?

Name:
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## **Create Your Own Character**

What are your character's favorites and least favorites and why?

	Favorite	Least Favorite	Why?
Food			
Relative			
Famous Person			
Hobby			
Sport			
People			
Book			
School Subject			
Type of Clothes			

Name:	



	My High-Tech Helper Invention - Writing Activity	
	In the story, Bronson builds a helper robot to help him do his chores. Have the students think up and write a paragraph describing a high-tech gadget or app they would like to invent to help them in their personal life and what the invention would do for them.	
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## My Invention for the World - Writing Activity

Bronson invented the Pancake Maker Pro to help his parent's restaurant make their famous pancakes super-fast to keep up with their growing demand. Ask the students to think up and write a short description of their idea for an awesome new invention to help others.

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## **My Future STEM Career - Writing Activity**

	My Future STEM Career - Writing Activity	
	Bronson and his friends each have unique STEM-related interests and skills. Bronson has mechanical engineering skills and likes to build robots and machines; Franny has computer coding skills and likes building cool apps and games; Myron has electrical engineering skills and enjoys building electronic components and devices. Have the students explain what STEM-related careers they might like and what products they might enjoy making.	
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## TEAM-BUILDING ACTIVITIES

## **Build a Beaver Dam Challenge (groups of 4 or 5)**

Challenge students to work together to build a beaver dam that works!

Beavers are nature's most ingenious engineers. This activity lets students be like a beaver and make a beaver dam.

Use the below materials to construct a dam that can block as much water as possible. The dam must reach across the entire width of the "stream" and measure at least two inches in height.

#### **Materials**

# Each group of students will need the following materials:

- Plastic paint tray (Dollar Tree)
- Small sticks and twigs
- Small stones and rocks
- Half-cup Air-dry Clay (Dollar Tree)
- 1/2 cup of water (w/ blue food coloring)
- Paper Towel



### **Directions**

- Gather materials in advance.
- Show students videos and photos of beaver dams and lodges.
- 3. Explain how beavers build dams on rivers and streams to slow the water's flow and form ponds. They do this to build their lodge in the pond to be safe from predators.
- 4. Distribute the materials to each group; Show them how the water naturally flows to the bottom of the paint tray when poured at the top.
- 5. Instruct students to build their dam towards the top of the tray using the materials to block the water from reaching the bottom of the tray.
- 6. Test each dam by placing a folded paper towel in the bottom of the tray and pouring the water at the top.
- Review and compare the student's dam designs and results and identify the elements of the most effective dams.

## TEAM-BUILDING ACTIVITIES

## **Outdoor Activity**

Although beavers are known to build dams mainly comprised of logs, sticks and mud. They're also known to incorporate rocks ands stones into their dams.

Challenge students to work together (groups of 4 or 5) to construct a dam outside in a creek or low-gradient stream to slow the flow of water. Adult supervision is recommended. Be sure to disassemble your dam when you have finished playing to not interfere with wildlife or the environment.

#### **Materials**

# Each group of students will need the following:

- Play clothes that can get dirty
- Waterproof shoes
- Nearby creek or shallow stream
- Stones (from creek) in a variety of sizes



#### **Directions**

- Move large rocks to your chosen construction site and line them up straight across the creek for the dam's foundation.
- 2. Fill in any large gaps of the dam foundation with medium-size rocks.
- 3. Next, dig up small pebbles, gravel, and mud from the creek bed to fill in smaller gaps.
- 4. Congratulations, you're dam is complete! You are ingenious as a beaver! Have fun splashing in the deeper water as the creek forms a small pool behind your dam.
- Be sure to leave no trace and disassemble your dam when you have finished playing to avoid disrupting the environment.

## Be Ingenious as a Beaver

Optionally, and if you have enough building materials at your location, try building your dam with logs, sticks, and mud like a beaver.



## **English Language Arts Standards this guide aligns with:**

#### **Grade 3**

Reading: RL.3.1, RL.3.3, RL.3.6, RL.3.7 Writing: W.3.1, W.3.1a, W.3.1b, W.3.1c, W.3.1d, W.3.10 Speaking and Listening: SL.3.1, SL.3.1a, SL.3.1b, SL.3.1c, SL.3.1d, SL.3.6 Language: L.3.2, L.3.2a, L.3.2e, L.3.2f, L.3.2g, L.3.3, L.3.3a, L.3.3b

#### Grade 4

Reading: RL.4.1, RL.4.3, RL.4.6 Writing: W.4.1, W.4.1a, W.341b, W.4.1c, W.4.1d, W.4.4, W.4.7, W.4.10 Speaking and Listening: SL.4.1, SL.4.1a, SL.4.1b, SL.4.1c, SL.4.1d, SL.4.4 Language: L.4.2, L.4.2a, L.4.2d, L.4.3, L.4.3a, L.4.3b, L.4.3c

#### **Grade 5**

Reading: RL.5.1, RL.5.3, RL.5.6, RL.5.7 Writing: W.5.1, W.5.1a, W.5.1b, W.5.1c, W.5.1d, W.5.4, W.5.7, W.5.10 Speaking and Listening: L.5.1, SL.5.1a, SL.5.1b, SL.5.1c, SL.5.1d Language: L.5.1, L.5.2, L.5.2e, L.5.3, L.5.3a, L.5.3b

