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# Backhoe Joe

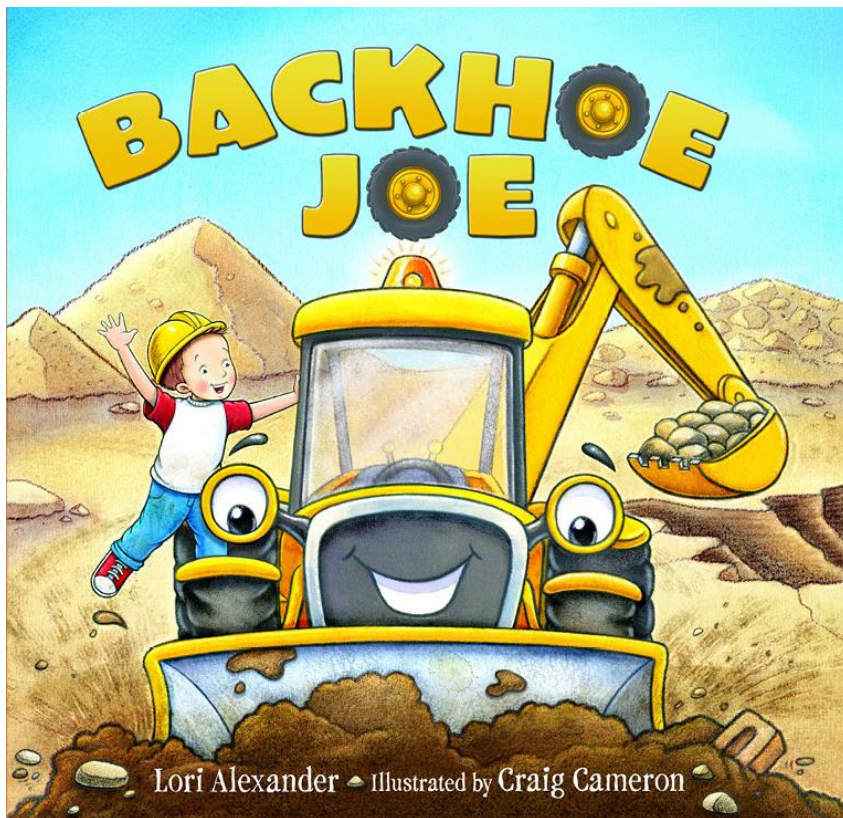
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a teacher's guide

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Created by marcie colleen

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**Based on the book published by Harper Children's *An Imprint of*  
HarperCollins *Publishers***

**Lori Alexander, Author**

***Backhoe Joe***

Lori lives in Tucson, Arizona with her husband and two rock-collecting kids. Her family always brakes for road construction so they can admire the dozers and diggers. Lori still secretly hopes a backhoe with follow them home. This is her first picture book. You can visit her at [www.lorialexanderbooks.com](http://www.lorialexanderbooks.com).

**Craig Cameron, Illustrator**

***Backhoe Joe***

Craig is from Carrickfergus, Northern Ireland. Over the last decade, Craig has worked on many exciting projects with book publishers in both the UK and the US and has created illustrations for licensed characters, magazines, greeting cards and product packaging. He currently lives in Manchester, UK with his wife, Annette, and their three children, Ellie, Lewis, and...JOE! Visit him at [www.craigcameronart.com](http://www.craigcameronart.com).

**Marcie Colleen, Curriculum Writer**

This guide was created by Marcie Colleen, a former teacher with a BA in English Education from Oswego State and a MA in Educational Theater from NYU. In addition to creating curriculum guides for children's books, Marcie can often be found writing picture books of her own at home in Brooklyn, NYC.

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## **How to Use This Guide**

This classroom guide for *Backhoe Joe* is designed for students in kindergarten through second grade. It is assumed that teachers will adapt each activity to fit the needs and abilities of their own students.

It offers activities to help teachers integrate *Backhoe Joe* into English language arts (ELA), mathematics, science, and social studies curricula. Art and drama are used as a teaching tool throughout the guide.

All activities were created in conjunction with relevant content standards in ELA, math, science, social studies, art, and drama.

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# English Language Arts

## **Reading Comprehension**

Before reading *Backhoe Joe*,

Help students identify the basic parts of a picture book: jacket, front cover, back cover, title page, spine, end papers, and jacket flap.

The Front Cover ~

- Describe what you see. Who are the characters? What are the characters doing?
- Stand up and pretend to be the little boy in the illustration. How does this pose make you feel? Now pretend to be the backhoe. How does being the backhoe make you feel?
- Can you guess what the story might be about? What are some clues you can find in the cover illustration?

The Endpapers ~

- Describe what the backhoe is doing in these illustrations.
- What are the steps that a backhoe takes to move rocks?
- How do you think the backhoe feels? Why do you think this?

Now read or listen to the book.

Help students summarize in their own words what the book was about.

- What is Nolan doing when he finds Joe?
- What does it mean to be a stray?
- When Nolan takes a step forward, the backhoe backs into the bushes. Why do you think he does this?
- How does Nolan get the backhoe to come out of the bushes?
- When Nolan gives Joe a pat on the loader, his bucket wiggles like crazy. What kind of animal is the backhoe acting like? Stand up and wiggle your tail/bucket.
- Joe isn't trained so he does some naughty things. Describe what he does.
- Nolan tries to help Joe get out some energy. How does he try to do this?
- Where does Nolan finally take Joe to dig?
- What does Nolan spot on the way home? What does the flyer say?
- How does Nolan feel when Joe's owner comes to get him? Why?
- What is Nolan's reward for returning Joe to his owner?
- How do Nolan's parents reward him for his responsibility?

- What pet does Nolan decide on? Why?

Let's talk about the people who made *Backhoe Joe*.

- Who is the author?
- Who is the illustrator?
- What kind of work did each person do to make the book?

Take a close look at the illustrations throughout the book.

- Craig Cameron does an excellent job of showing how Joe is feeling in each illustration simply through his eyes, eyebrows and mouth. Page through the book and have students describe how Joe is feeling in each illustration.
- Students can practice drawing facial expressions using Cameron's illustrations as a guide.
- Draw and cut out some smiles, frowns, worried eyes, etc. and allow students to have fun placing these expressions on everyday objects in the classroom. The other students can guess what the object is feeling.

## **Writing Activities**

### **The Wackiest Pet Ever!**

Nolan certainly has odd tastes in pets. First a backhoe and then a cement mixer!

As a class, brainstorm some other crazy pet ideas.

Have the students write a story about having a really crazy pet. What are some of the silly situations that might happen when they try to take this pet home? The crazier the better.

Each story should include a beginning (where they meet the pet), a middle with 3 different crazy moments and an ending. *Backhoe Joe* can be used as a mentor text.

*Optional:* Create the story together as a class.

### **A Backhoe Knows ~ Point of View**

Either as a class or individually, explore *Backhoe Joe* from the point of view of Joe. What was he doing when Nolan saw him? How did he get away from his owner? Does he miss his owner? How does he feel about Nolan?

Advanced classes will be able to actually create *Backhoe Joe* from Joe's point of view. However, if the class is less-advanced, create the story together.

*Additional Challenge:* How about *Backhoe Joe* from Nolan's parents' point-of-view?

### **"Please, Mom! Can I Keep Him?" Persuasive Essay**

Nolan persuades his parents to let him keep Joe, even though he isn't trained. Ask your students if they know what "persuade" means? If not, can they make any guesses?

Discuss:

- What it means to persuade
- Times you might want to persuade someone (i.e., persuade your parents to let you stay up late).

Writing to persuade tells the reader what you believe, gives the reader at least three reasons why you believe it, and has a good ending sentence. You want to try and convince the reader to agree with you.

Have students write a persuasive essay called "Please, Mom! Can I keep him?" using the following structure:

T=Topic sentences. The topic sentence tells the reader what you think or believe.

Example: *I found a backhoe and I want to keep him for a pet.*

R=Reasons. 3 or more. The reasons tell the reader why you believe what you believe. Write at least 3-4 sentences supporting each reason.

E=Ending. Wrap it up with a conclusive sentence.

E=Examine. Look closely. Do you have all of your parts?

### **Speaking and Listening Activities**

Picture books are written to be read aloud. Here are some other ways to bring *Backhoe Joe* to life in your classroom and also have fun with speaking and listening skills!

#### **Choral Reading**

The teacher takes the role of the parents and narrator while the students take the role of Nolan. Read the book aloud together. Emphasize memorization of the students' parts as well as good vocal expression.

#### **Mime**

While the teacher reads the book aloud, the students can act out the events in the book. Half the students can be Nolan and half the students can be Joe. Emphasize body

motion and facial expressions, as well as listening skills. Switch roles and read the book again.

### **Drama**

Ask the students if they can think of ways to take care of a pet. Have the students act out their ideas in front of the class. They can either tell the class what they're acting or ask the class to guess what actions they are acting out.

Or

Create a TV commercial to encourage people to read *Backhoe Joe*.

### **Dramatic Play**

Using large blocks or boxes build a creation against a wall and then outline the blocks using blue painter's tape to create a full-scale blueprint! Encourage children to follow the blueprint or create their own. Other props at this station might include hard hats, play tools, tool belts, clip boards and pencils, real blueprints, phones/radios, orange cones, and caution tape.

### **Vocal Style**

In small groups, act out *Backhoe Joe* as an opera, a western, a "breaking news" story, a thriller, etc. The rest of the class should guess what the "style" is.

### **Language Activities**

#### **All About Adjectives: The Missing Shoe Game**

Often when beloved pets are lost, the owners will place Missing or Lost ads around their neighborhood, just like Joe's owner did. But in order to do so, they need to know how best to describe their pet. For this reason, it is important to learn how to describe something using adjectives.

This is a game to sharpen describing skills.

- Everyone needs to take off their shoes.
- Have each student spend some time studying their shoe and coming up with 4 adjectives to describe it. They may write these adjectives down, if it makes it easier to remember.
- Then place all of the students' shoes in a pile. (Only one shoe in the pair is needed, but if the other is not placed in the pile, it should be hidden from sight.)
- The students should form a circle around the pile.



- The first student to go, says their 1<sup>st</sup> adjective and sees if anyone can identify their shoe. If not, then they say their 2<sup>nd</sup> adjective and so on until they have said all 4.
- The objective is to use as few adjectives as possible.
- If the student says all 4 adjectives and no one identifies their shoe, it is the next student's turn.

## Math

**Word Problems** *For younger students, the use of pictures or props might be needed to figure out word problems.*

- 1) Nolan finds 3 special speckled grey rocks. He searches and finds 2 more special speckled grey rocks. How many special speckled grey rocks does Nolan find?
- 2) Nolan lays out 4 rocks to try and get Joe out of the bushes. When that doesn't work, he lays out 3 more rocks. How many rocks does Nolan lay out?
- 3) Joe loves scooping piles of rocks. He digs and digs and scoops up 5 piles of rocks in Nolan's mom's garden. Before he gets in trouble he scoops 1 more pile of rocks. How many piles of rocks does Joe scoop?
- 4) Nolan has 6 balls and tries to play catch with Joe. Joe loses 4 of the balls. How many balls are left?
- 5) Joe's owner makes 8 "Lost" flyers. Joe's owner hangs up 2 "Lost" flyers. How many flyers does he have left to hang?

### **Bean Counters: Learning Capacity and Volume**

Nolan likes to collect rocks, but his backpack can only hold a small amount of rocks. Joe's loader can carry a big amount of rocks. This activity helps students learn capacity and volume.

For this activity you will need:

- Several different sized and shaped containers
- Dried beans

Students are to guess which containers will hold the most beans and which containers will hold the least beans. Have students put the containers in order according to their capacity. Once the class has agreed on the order, fill each container with beans, one at

a time. Count how many beans are in each container. Were they right about the order?

### **Tower Topple! Math Jenga**

Turn your classroom into a math construction site when you transform a simple Jenga game into a way to practice math skills.

Tape or write a simple math equation onto one side of each Jenga block. There are 54 blocks on total.

Set up the game as usual with the math equations facing down. Play the game following the normal Jenga rules, except that when a student successfully pulls out a block, he or she must give the correct answer to the equation.

If the student answers correctly, play continues. Answer incorrectly and lose a turn.

Any student has the option to challenge an answer. If correctly challenged, they gain a turn. If they are incorrect in their challenge they lose a turn.

The game ends when the tower falls. The student who made the tower fall is then challenged to answer all 54 math equations correctly.

## Science

### **Working: Push, Pull, Lift**

What is *work*? Brainstorm ideas as a group. Look the word up in a dictionary. According to the definition, what kind of physical work do the students do every day?

Explain to students that they will be performing some work—pushing, pulling, and lifting—with the following objects: a box, several books, and a chair.

Discuss and have students demonstrate the work of pushing, pulling, and lifting each object (push the box, lift the books, pull the chair, etc).

- Which objects are easier to move?
- Which objects are harder to move? Why do you think it is harder?
- Which method takes less effort (pulling, pushing, or lifting)?
- Which method takes more effort?
- On a scale of 1 – 10 with 10 being the most effort, rate the effort of moving each object with pulling, pushing and lifting.

Divide students into groups of 3-4. Assign each group a work effort: pulling, pushing or lifting. Each group must figure out a way to move—from one side of the room to the

other--all 3 objects (the box, the books and the chair) together at the same time. Allow time to experiment. When all teams are finished they must demonstrate their method to the rest of the class.

BONUS: Teams can design a simple "machine" using rope, wheels, etc. that would make moving the objects easier.

## **Construction Vehicles 101**

Kids sure know their construction vehicles, but do you? Switch the tables and let the students be the teacher. Ask them to bring in any construction vehicle toys or books they might have to assist them in introducing these amazing machines to you.

Start with asking students to help you identify the various vehicles.

- A front loader
- A backhoe
- An excavator
- A bulldozer
- A dump truck
- A cement mixer
- A crane
- A forklift

What kind of jobs does each vehicle do? How?

Does the vehicle push, pull or lift?

What features does each vehicle have that sets it apart from the others?

If you could own one of these vehicles as a pet, which would it be and why?

EXTRA BONUS: Create a sensory table with sand and allow students to demonstrate the vehicles abilities.

## **My Pet Rock**

Nolan loves rocks and Nolan wants a pet. Maybe Nolan should consider a pet rock. It might be a little less work than a backhoe or a cement mixer.

In the following activity, your students can have fun learning more about rocks and perhaps find a pet at the same time!

Have each student bring in a rock bigger than their thumb and smaller than their fist. Encourage them to bring interesting and unusual rocks.

1. First students will study their rock's appearance and write down at least 5 observations.
2. Students will draw a picture of their rock on the worksheet.
3. Set up a variety of special centers for students to travel through to better explore their rocks. Before conducting each exploration, students should write down a prediction about their rock and the test to be performed. Examples of center can include:

**Size/Mass**

Measure and record the length and mass of rock with a tape measure, graduated cylinder and scale.

**Scratch Test**

A scratch is defined as a small crevice. Pressure should be applied. Traces of metal are not scratches. Try the scratch test in this order: fingernail, penny, nail.

Introduce the students to the Mohs hardness scale. Help them to find the hardness of their rocks. <http://geology.com/minerals/mohs-hardness-scale.shtml>

**Vinegar Test**

Use an eyedropper to place a few drops of vinegar in a scratch or on the surface. If it bubbles, calcium carbonate is present, which is found in limestone and marble. Research and discuss examples of rocks that contain calcium carbonate.

**Sink or Float?**

Place the rock gently in water and see if it will float.

4. After completing all the centers, students will write a sentence about each center to describe the characteristics of their rock and the comparisons of their predictions and test results.
5. Discuss the various tests. Discuss what the students think about different rocks sinking and floating, why some rocks bubble in vinegar, and similarities and differences between rocks.
6. Explore more about classifying rocks at <http://geology.com/rocks/>.

# Social Studies

## **Responsibility**

Lead students in a class discussion on *responsibility*.

1. What is *responsibility*?

- Being accountable for what you do, for your actions and behavior.
- Doing the right thing at the right time, so others can trust and depend on you.

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. Don't make excuses or blame others.
- Take care of your things and those of other people. Return items you borrow.
- Find out what needs to be done and do it.
- Make wise choices, such as choosing to eat healthy foods and wearing a helmet.
- Always do your very best. Others are counting on you!

3. How would you demonstrate *responsibility* if...

- You broke the wheel off your brother's new skateboard?
- Your friend asks you to play and you haven't finished your homework?
- You're playing a really fun game at your friend's house and it's time to go home?
- You promised your mom or dad you would clean your room but you just don't feel like it?
- It is time to go to bed and you just remembered that your book report is due tomorrow?
- You agreed to take care of your neighbor's dog while she is away, but now a friend has invited you to a sleep over?
- Your mom is not feeling well and could really use some extra help around the house?
- You forgot to bring your homework home from school, including the book you need to study for tomorrow's test?

4. What are some other situations where we can demonstrate responsibility?

5. Design a poster encouraging *responsibility* to hang around the school.

### **Taking Care of a Pet**

Taking care of a pet can be fun—but also difficult, as Nolan discovers.

Although a backhoe and a cement mixer might be fun, some more traditional pet choices are: a dog, cat, fish, bird, hamster or rabbit. Although Nolan obviously chose differently.

Choose a pet and do some online research to figure out how to take care of it. Use at least two resources for information. Write and/or draw a picture of your findings.

My pet is named \_\_\_\_\_.

How to take care of my pet:

Food: What I feed my pet \_\_\_\_\_

Water: Does my pet need to drink water? \_\_\_\_\_

Shelter: Where my pet lives and sleeps \_\_\_\_\_

Potty: How do I know when my pet has to go potty, and where does my pet go?

\_\_\_\_\_

Exercise: How I give my pet exercise? \_\_\_\_\_

Grooming: How I make sure my pet looks and feels good.

\_\_\_\_\_

**BONUS!** When Nolan meets Joe, he calls him a stray? What is a stray? How can you make sure others know your pet is a pet and not a stray? What could Joe's owner have done to make sure Joe was not a stray?

### **I'm Lost**

Have you ever been lost? If so what did you do?

Here are 3 tips for if you ever get lost.

1. Stop! Stay Put! As soon as you realize you are lost, stay where you are so that whoever is looking for you might be able to find you. Did Joe follow this tip? What do you think Joe did? What could he have done differently?

2. Ask someone for help. Find an adult, with children if you can find one, and ask them for help. Did Joe follow this tip? What could Joe have done differently?
3. Make a safety plan with your family in case you ever get lost. What can Joe and his owner do to make sure he doesn't get lost again?

## **Famous Builders**

Buildings shelter and protect us throughout our lives for home, work and play but can also be beautiful to look at. Therefore, architecture is essentially art we live in. Even if we've never been in any of the buildings designed by master architects, we've probably been in plenty that incorporate their influences.

Assign a famous architect for students to research in the library and on the Internet. A list of 10 are below, but do not feel limited to those on the list.

- Frank Lloyd Wright
- Michelangelo
- Mimar Sinan
- Sir Christopher Wren
- Louis Henri Sullivan
- Le Corbusier
- Antoni Gaudi
- Ludwig Mies van der Rohe
- I.M. Pei
- Frank Gehry

Possible sources for information:

- Nonfiction books
- Encyclopedias
- The Internet

Take notes and gather as much information as possible on the following 5 topics:

- Early Life/Childhood/Family
- Life as an architect
- Famous structures
- Influences
- Other fun facts

Once the information is gathered, work to create either an illustrated poster or booklet of the findings.

BONUS: Pick a building in your own town and research its history and architect.