educator's guide

DINOTRUX

Curriculum connections

- Science
- Mathematics
- Social Science
- Writing

Ages 3 & Up



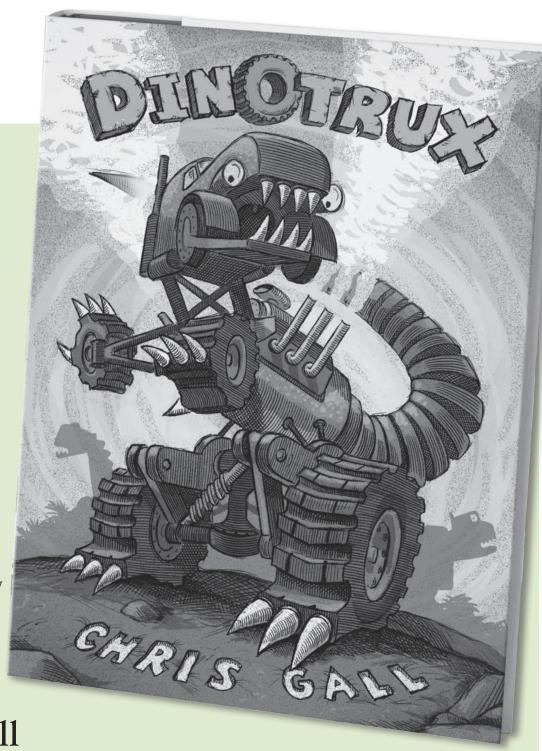
"Brawny!"-Kirkus



"Overheated!"-PW



"Riotous!"_slj



by Chris Gall

Research in Practice: Phonemic Awareness

Phonemic awareness is the ability to hear individual sounds in words. Many children enter school with this already firmly established, but for some students this must be explicitly taught and fostered. Playing with language is a natural way to develop phonemic awareness. Books such as *Dinotrux* help demonstrate language play. By combining names of dinosaurs with names of transportation vehicles, the author has exposed students to the idea of word segmentation in an entertaining way. While this is a higher-level word study concept, exposing young children to the idea of manipulating word parts is an important foundation for future reading success. There are also opportunities to listen for rhyming patterns or beginning sounds in words. The suggestions in this guide are intended to be a springboard for your own creativity. Please feel free to adapt, modify, or develop your own ideas. Whether you use it to build phonemic awareness or introduce evolution, *Dinotrux* has something for everyone.

ELA

Building Background

Prehistoric trucks! What could be better than that? Students will bring varied background experience to any discussion about dinosaurs or modes of transportation. Celebrate your students' schema (background knowledge) by creating a bulletin board of "Fun Facts about Dinosaurs and Trucks of all Kinds." Begin with the facts they already know, but challenge them to add to the display over time by researching fun facts on their own. Talk about how every new fact they learn or book they read will help them become better readers because they are adding to their schema.

Questioning: Fact vs. Fiction

Dinotrux combines fact and fiction in a way that allows students the opportunity to apply the comprehension strategy of questioning. Working as a class, generate a list of questions for students to investigate. Write these on chart paper. For example, there are cave people in Dinotrux. Did cave people really live at the same time as dinosaurs? Volcanoes are shown in the book. Were there really volcanoes millions of years ago? Work with students to develop questions together. Then, have small groups of students choose a question to research. Provide guidance and resources for each group to help them answer their questions. (More guidance will be needed for younger students.) Then, have each group report to the class. Record the answers on the chart paper. Discuss how questioning helped students become more thoughtful readers.

VOCABULARY

Discuss the words and phrases, "sticking your nose where it doesn't belong," "hot tempered," and "litterbug." What do these mean? Use a Total Physical Response (TPR) to illustrate their meaning. After discussing the words and phrases, have students work together in pairs or small groups to act out the words and phrases to show their understanding of the new vocabulary. Idioms can be particularly difficult for students learning English or for students that may lack background experiences. Choose additional idioms to illustrate through role-play, then create an idiom word wall full of favorite phrases. Students may also want to include a short definition or picture next to the words.

Dino-sized Superlatives: Big, Bigger, Biggest

Introduce the idea of superlatives to students. We use superlatives in language to help us compare things. Work through several examples as a class, brainstorming three things that are big, bigger, and biggest. Link to *Dinotrux* by choosing characters from the story, or compare different dinosaurs or trucks. Students may want to fill in the blanks of a simple statement such as, "A ________ is big. A _______ is the biggest. Come up with other ways to compare, such as small, smaller, smallest, or tall, taller, tallest. Have students work in pairs or small groups to complete the comparison activities and then share with the whole class.

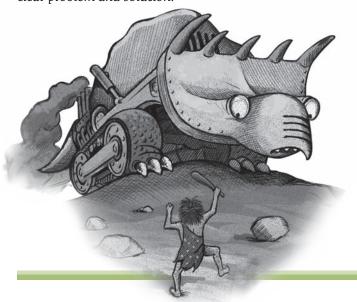
WRITING

Onomatopoeia

Dinotrux is full of examples of onomatopoeia, words that bring to mind the sounds they represent. Crash, boom, crunch! Invite students to look for examples of onomatopoeia within the book. Talk about how using these words in descriptive writing can help the reader more fully experience the author's message. Onomatopoeia is often found in poetry, but it is also found in comic books. Show students examples of comic books that use onomatopoeia or show poetry that contains examples. Then, give them the opportunity to experiment by creating their own comic or poem. For comics, students may want to choose one of the Dinotrux as a main character. Students that choose to write a poem may think about the setting of Dinotrux and try to describe it using the sensory language of onomatopoeia.

Dinotrux Character Development

Dinotrux gives a general introduction to many of the characters in the story, but what adventures did each of the Dinotrux have before the flash of light and terrible storm? Challenge students to choose one of the Dinotrux and write a story about it. Talk about how each of the Dinotrux would probably have a different type of problem in the story because they had different habits or bad manners. For example, a story with Firesaurus as the main character will likely focus on his bad temper and the trouble his "hot temper" causes for himself and others. Help students map out their stories, making sure they include a beginning, middle, and end with a clear problem and solution.



Dear Mom, You'll Never Believe What Happened Tonight

At the end of *Dinotrux*, there is a man mopping the floor in front of Tyrannosaurus Trux. Have students pretend they are the person mopping the floor. What do they think might happen next? Encourage each student to use their imagination. Then, have students write a letter to their mother or another person describing the events that take place that night.

MATHEMATICS

Older than...Timeline

Dinotrux changed over hundreds, and thousands, and millions of years. What do these numbers mean? It is difficult for most adults to visualize and understand how long ago dinosaurs roamed the earth. It is even more difficult for students. To help them gain some perspective, create a "Dinosaurs are older than...chart." Have students brainstorm a list of objects, events, and historical figures and create a timeline together. Have students bring in pictures or create illustrations for their brainstormed list and then place their pictures on the timeline. Use the timeline for simple number sense activities or to build comparative language, "My Grandma is older than my mother, but not as old as a dinosaur."

Dinosaurs Really Measure Up!

Extend students' research about different types of dinosaurs by applying measuring skills. As students learn facts about various dinosaurs, have them work in small groups to show the length of each dinosaur. A hallway works best for this project because students need plenty of room. Have them use rulers or meter sticks to measure out the length of the selected dinosaur on the floor or wall. Have them write the name of the dinosaur and the total length on a piece of tape, marking start and end points. To differentiate for younger students, choose several dinosaurs and pre-measure them in the hallway. Have students guess how long each one might be. Then, measure them together.

SOCIAL STUDIES

Paleontologist's Guide to the World

Dinosaur fossils have been found around the world. Extend students' understanding of the world around them by showing on a globe or map all of the different places dinosaur bones have been found. Have small groups choose an area of the world to research. Each group should create a page for a class book: The Future Paleontologist's Guide to the World. Each page should include a map, the type of dinosaur fossils found, and a brief description of what that place is like today. Students may want to include pictures and illustrations for their page. This activity may be completed by younger students with guidance and scaffolding, but is especially rich when introduced as a multi-age project. Pairing younger students with older students allows younger students' enthusiasm for the subject matter to be combined with the academic ability of upper-level classes.

SCIENCE

Dinotrux Evolution

Throughout time and history, plants and animals have evolved and changed. In *Dinotrux*, the misbehaving creatures of the past become helpful over time. Create a T-chart and compare what each of the Dinotrux was like before and after they evolved. What did they look like? What are they like now? How did they change over many years? Explore how other creatures have changed over history. Cats were once more like tigers than the house-cats of today. There is even evidence to suggest that whales were once wolf-like creatures. In more recent history, Galapagos turtles developed long necks and notched shells in order to survive. Challenge students to research examples of other plants or animals that have changed over time. Discuss together why some of the changes might have occurred.

ART

Do-it-Yourself-Dinotrux

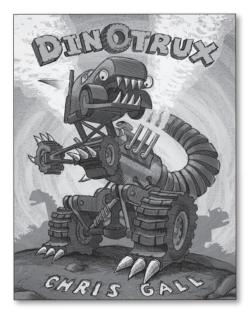
The author of *Dinotrux*, Chris Gall, combines dinosaurs and various trucks or construction vehicles to make new creatures. Invite students to add to the Dinotrux collection by creating their own. Have students choose a dinosaur to study. Then, have them choose a vehicle the author did not use already in his book. Have students design a new animal by combining the features of the vehicle and the dinosaur studied. They should sketch a design, name the newest member of the Dinotrux family, and then write a brief profile describing their new creature. Remind them to make sure to identify the bad habit or behavior of their Dinotrux creature.

Sculpting a Vision

Benjamin Waterhouse Hawkins was an illustrator and sculptor of dinosaur models. He worked with Richard Owen in the mid-19th century to create models of dinosaurs based on what was known about them at the time. His full-sized sculptures helped people understand what dinosaurs were like millions of years ago. Encourage students to pretend they are a sculptor like Benjamin Waterhouse Hawkins. Give students clay or sculpting material and a picture of a dinosaur (or they could choose one of the Dinotrux). Then, have them create a model out of clay. Talk about how art such as this was important at the time because it helped scientists show the public their discoveries in an understandable way. Then, discuss with students how scientists use computer imaging today to help people visualize and understand new discoveries.



about the book



Dinotrux
By Chris Gall
978-0-316-02777-9

Millions of years ago, DINOTRUX ruled the Earth! These mighty part-truck, part-dino creatures rumbled, plowed, and bulldozed their way through the centuries, demolishing anything in their path.

From the nosy Craneosauraus and the mega-hungry Garbageadon to the bully of the jungle, Tyrannosaurus Trux, Chris Gall guides you on a safari through the wild world of these mechanical monsters of prehistoric times. So buckle up for the ride — you'll never look at Dad's rusty old pickup the same way again!

Praise for *Dinotrux*



"Rousing...Dinotrux ruled their world, and now they're likely to rule this one too."—Kirkus Reviews (starred review)

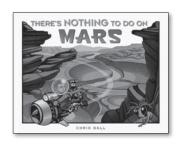


"Hilariously imagined creatures that suggest the offspring of R. Crumb creations."—Publishers Weekly (starred review)



A "zany and riotous ride."—School Library Journal (starred review)

also by Chris Gall



There's Nothing to Do on Mars 978-0-316-16684-3 • AR 3.3



Dear Fish 978-0-316-05847-6 • AR 4.5

about the author



Chris Gall is the illustrator of There's Nothing to Do on Mars, Dear Fish, and America the Beautiful. He has received over 50 major awards from the likes of the Society of Illustrators, Communication Arts magazine, The New York Art Directors Club, and Print magazine. He lives in Tucson, Arizona. Visit him online at www.chrisgall.com



