

Brainstorm!

The Stories of Twenty American Kid Inventors

by Tom Tucker

Booktalk

Have you ever heard yourself saying, “I wish I had invented that!”? Well, stop wishing and get to work. Kids invent things all the time; we just don’t always hear about it. If you’re wondering what kinds of things young inventors come up with, then *Brainstorm! The Stories of Twenty American Kid Inventors* is the book for you. It features amazing young inventors, some who even kept inventing as adults and became famous. From the glo-sheet (a clipboard you can write on in the dark) to the television, their inventions will inspire you to create your own big idea.

Possible Booktalk Links (Plugged-in to Reading Collection)

Plugged-in to Nonfiction, Level 2

People who made a difference:

Girls Who Rocked the World by Amelie Welden

Kids Make History: A New Look at America's Story by Susan Buckley and Elspeth Leacock

Boys Who Rocked the World by the Editors of Beyond Words Publishing

Adventure:

The Worst-Case Scenario Survival Handbook: Travel by Joshua Piven and David Borgenicht

Richard the Lionheart: The Life of a King and Crusader by David West and Jackie Gaff

The Concrete Wave by Michael Brooke

Extreme Sports: The Illustrated Guide to Maximum Adrenalin Thrills by Joe Tomlinson

Plugged-in to Fiction, Level 2

People who made a difference:

Darnell Rock Reporting by Walter Dean Myers

Let the Circle Be Unbroken by Mildred D. Taylor

The Shakespeare Stealer by Gary Blackwood

Adventure:

The True Confessions of Charlotte Doyle by Avi

Blackwater by Eve Bunting

The Maze by Will Hobbs

Deathwatch by Robb White

Lexile Level: 1070
Cassettes: 4
CDs: 4
Hours: 3.75
 Narrated by Andy Paris
 and Jennifer Ikeda

Text-to-Text Connections

“All Watched Over by
 Machines of Loving
 Grace,” poem by
 Richard Brautigan

Rube Goldberg
 invention

Nonfiction Text Types Featured

Illustrations

Diagrams

Advertisement

Literary criticism

Historical texts

Glossary

Index

Illustrations

Profiles

Bibliography

Explanation

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Summary

Organized in chronological order, this collection of engaging short histories shows students that patentable, successful inventions aren't all created by adults. After a detailed introduction, which explains the patent process in the United States, the book features 20 child inventors, including some who made history as adult inventors as well. Sample summaries of inventors from the book are included below.

“Chester Greenwood: The Boy Behind the Flap”

Chester Greenwood, one of six children in a farm family in Farmington, Maine, suffered from cold ears every time he ventured out of doors during the winter. This problem led him to invent the Greenwood Champion Ear Protector, known to us as earmuffs. He received a patent when he was just 18 years old, and at one point his earmuff factory was so successful it provided work to half the community.

“Vanessa Hess: A Colorful Idea”

Each year Mrs. Maurine Marchani, a seventh-grade science teacher, assigned her students an invention project. One of her students, Vanessa Hess, lacked an idea. Then, as her father waxed the family car, the idea came to her: colored car wax. Vanessa experimented, created the colored wax and won at the school, regional, and state competitions. After being featured in a newspaper, Vanessa was contacted by an auto parts company that had just developed such a wax. The company featured Vanessa in film promotions for its own Magic Shine products.

“Enthusiastic, pleasantly specific, well-researched, and inspiring. Here’s proof that serious inventors need not be adults, and that inventions need not be complex, expensive machines to be patentable, marketable, and, sometimes, lucrative.”—Kirkus Reviews

Background Knowledge for Teachers

Some knowledge of famous inventors would be helpful.

The definition of a patent and the patent process is explained in the text.

Talking About Books!

1. Tell me about the invention that most surprised you.
2. What character traits do you think these kid inventors have in common?
3. Sometimes we are inspired by the accomplishments or inventions of others. Tell me how some of these inventors inspired you or might inspire others.

Matching Text to Readers

Supports/Challenges

- Young inventors
- Short histories
- Science/technology/inventing

3

Welcome to the Independent Reading Guides

The Independent Reading books are a fantastic group of nonfiction texts sure to appeal to all readers, whether highly motivated or reluctant. The books enable students to take the final step in becoming active, independently involved readers. The Teacher Guides will equip you with the tools you need to gain a quick overview of the Independent Reading books and determine whether a text is a good match for a student.

Each Teacher Guide on the following pages contains:

- A **Booktalk** paragraph similar to a movie preview
- **Possible Booktalk Links**, a list of books in the Plugged-in to Nonfiction Collection with similar issues or themes
- **Text-to-Text Connections** linking the book to other readings
- A list of **Nonfiction Text Types Featured** in the book
- A **Summary** covering the major subjects and events
- **Talking About Books!** discussion questions
- **Matching Text to Readers** listing supports and challenges that may be matched to students' abilities or difficulties
- **Background Knowledge for Teachers**, helpful to explore before assigning the Independent Reading text

The Independent Reading Guides

are easy for students to use. The activities in these consumable booklets provide supports to help your students in their reading, listening, and writing skills as they learn to apply learning strategies to nonfiction texts. The activities offer extended opportunities for students to apply one or more of the strategies learned with the Core Text or in Power Strategy Groups. Both responsibility and motivation for mastering the text is placed with the student, and the provided tools create a supportive environment for individual success.

Each Independent Guide contains the following sections:

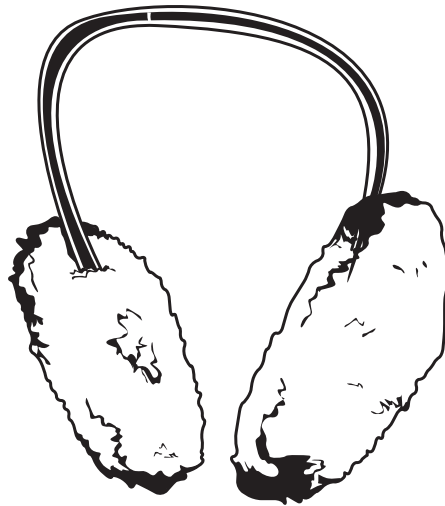
- A **Letter to the Reader** introducing the book and recommending further reading
- An **Anticipation** activity encouraging students to consider the book's text features and content and to make predictions
- **Specialized Vocabulary**, a framework for building vocabulary based on words from the book
- **Reading for Information** activities enhancing student understanding of facts, organizational patterns, and text supports
- **Writing** activities providing ample opportunity for students to practice critical writing skills
- **Text-to-Text Connections** encouraging students to connect the text to other readings, both fiction and nonfiction
- An **Inquiry** activity leading students beyond the world of the text and encouraging research
- **Assessments**, including both multiple-choice and open-ended questions



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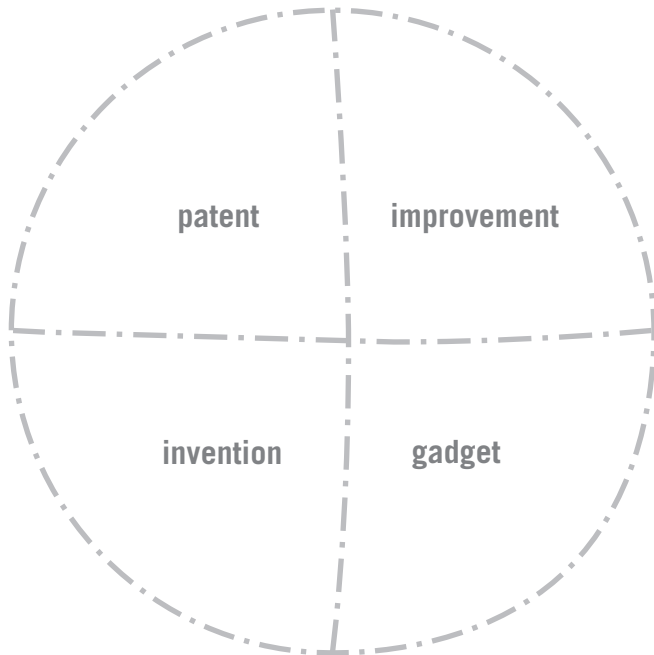
Dr. Janet Allen's
Plugged ▶ in
TO NONFICTION®

Name: _____

Date: _____

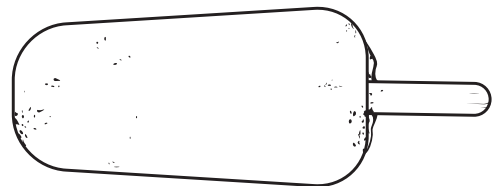
The Words Go Around and Around

The words in the circles on this page and the next one are used in *Brainstorm!* Your task is to describe the relationships between the words in each concept circle. An example has been provided to help you get started.



Words related to the meaning of patents.

Patents give inventors exclusive rights to inventions, gadgets or improvements they have created. That means that only the inventor of the item or improvement is legally allowed to make a profit from it.



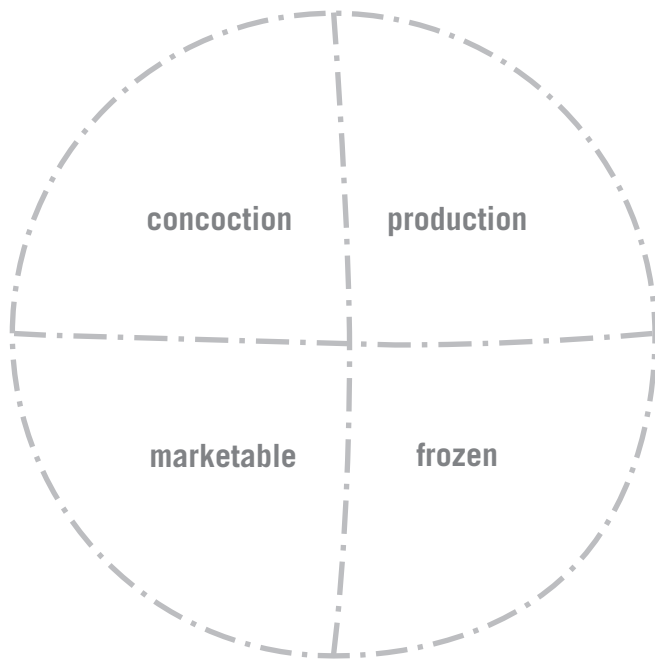
General words related to the invention process.



Name: _____

Date: _____

The Words Go Around and Around *continued*



Words from "Frank W. Epperson"

Words from "Maurice Scales"

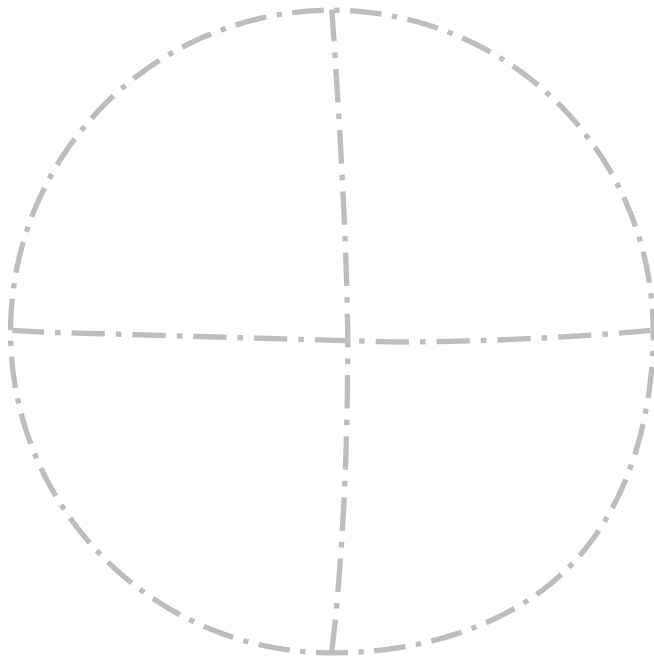


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Date: _____

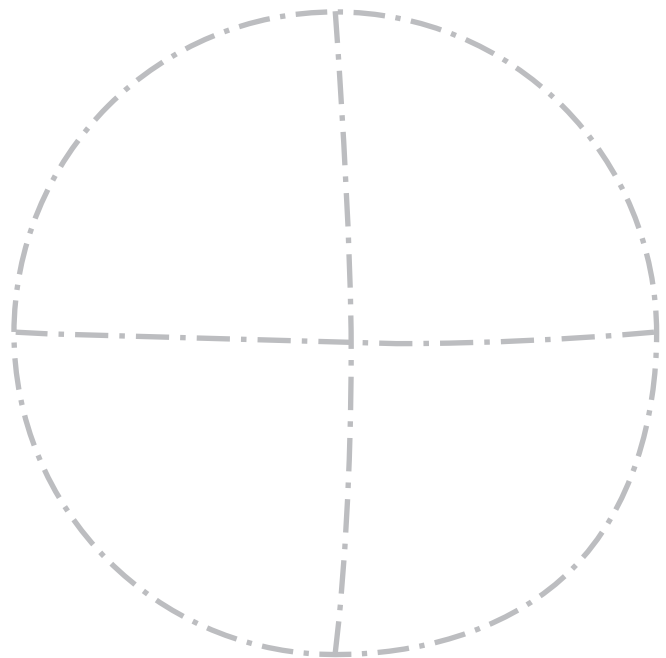
The Words Go Around and Around *continued*

On this page create your own concept circle words and then write about the relationships between them. Choose words that you think are important from two chapters of *Brainstorm!* Be sure to put the title of the chapter next to each circle.



Words from _____

Words from _____



Name: _____

Date: _____

S.W.A.S.

As you read *Brainstorm!* use the organizer below to take notes from the text about several of the inventors and their inventing process. Once you have finished an entry, use your notes to write a one- or two-sentence summary of the section. See the example below for more information.

Somebody	Was searching	And	So
Chester Greenwood (p. 9–13)	for a way to keep his ears warm outside during the icy Maine winter.	he figured out how to keep pieces of cloth and fur on his ears.	he invented earmuffs.
<p>Summary: Chester Greenwood invented earmuffs in order to keep his ears warm during the winter. <i>Note: Organize your summary sentence or two in an order that makes sense. You do not have to list the notes in order, or use all of them.</i></p>			

Continue on your own paper as needed.