**Pop! The Invention of Bubble Gum**  
Author: Meghan McCarthy

- **Summary:** This book is a fairly easy read and is meant to be used for students mainly ages 4-8. Not only is the book entertaining and fascinating but also allows the reader to learn more about a famous invention, one the children adore-bubble gum. It explores the times of when chewing gum was first used, to the chemical experiments of making a new type, to shipping out the finished product all around the world. The book has excellent resources at the end to provide students, teachers, and parents with more information about the inventor, facts about gum, and other resources.

- **Awards received:**
  - Black Eyed Susan Book Award Master List (MD)
  - Capitol Choices List (DC)
  - Pennslyvania Young Reader’s Choice Award Nominee
  - A Junior Library Guild Selection
  - Society of Illustrators Original Art Pick 2010
  - Parents Magazine Top 20 Books

- **Review:** From Amazon.com: “From School Library Journal--Starred Review. Grade 2–4—This picture-book biography of the inventor of bubblegum is equal parts informative and entertaining. With appropriately simple but engaging prose, McCarthy relates how accountant Walter Diemer began "playing with different mixtures" in the late 1920s at the candy factory where he worked and eventually discovered a gum that bubbled. Judicious use of the inventor's own words helps to convey his enthusiastic personality.

  Along with Diemer's story, the author also covers a bit of gum history, the trial-and-error of invention, and the excitement that comes with a successful final product, all with just the right level of detail. Appealing acrylic cartoon illustrations fill this snippet of history with a sense of fun. The prominent curves of smiling faces and circular eyes and heads stand out against heavy lines and angles to fill each scene with playfulness that matches the subject. Rich colors capture the lighthearted joy of bubble blowers, both old and young, while contrasting darker tones reflect the drama of the inventor's lab work.

  A closing spread offers further information about Diemer's life, more fun facts about gum, and a full list of sources. Although the man will be unfamiliar to young readers, they know his invention well, and will appreciate his unexpected but well-earned success. McCarthy's on-target presentation makes this a strong choice for elementary biography assignments, booktalking, or just plain nonfiction fun.” —Steven Engelfried, Multnomah County Library, OR

(http://www.amazon.com/Pop-Invention-Bubble-Meghan-McCarthy/dp/1416979700)
• **Author Information, Meghan McCarthy:** [http://www.meghan-mccarthy.com/homepage.htm](http://www.meghan-mccarthy.com/homepage.htm)

• **Discussion Questions:**
  o **BEFORE** reading the book:
    - How long ago do you think bubble gum was invented?
    - Do you know of any ways chewing gum was originally used?
    - How do you think bubble gum is created?
  
  o **DURING** reading the book:
    - What was chewing gum originally used for?
    - What kind of process does it take to invent something?
    - Have you ever tried to do something but didn’t succeed the first time?
  
  o **AFTER** reading the book:
    - What is one new fact you have learned about bubble gum?
    - If you could invent something, what would it be?
    - Do you have a funny bubble gum story to share with the class?

• **Curricular Activities:**
  o **Reading/oral language** - This book is a work of nonfiction. Use the text to direct students in a discussion about what features belong to the nonfiction genre.
  
  o **Writing** - What adjectives can be used to describe what it is like to chew gum? Use all five senses. Write a letter to your favorite gum brand, creating a new flavor. What would the flavor be? Why should they make it? Give it a unique name. If you could donate a million dollars to anything, what would you choose? Why?
  
  o **Math/Technology** - What happens to the gum when chewed? Does it gain weight from being in your mouth, lose weight, or stay the same?

    Materials: kitchen scales, gum, wax paper, watch

    Guess what you think will happen. Take the wrapper off the gum. Put wax paper on the scale, and tare or zero the scale. Then, put the dry gum on the scale.
    Measure the weight.

    Chew the gum for one minute and weigh again. Record. “Weigh again at five minute and then at ten minutes of chewing.” What is happening? Did the results follow your guess? Try to figure out why or why not. Test more sticks and different kinds of gum. Use a computer software program to graph the results

o **Science**- Which type/brand of gum blows the best bubbles?

Materials: Several brands of bubble gum and regular gum, Ruler, Students to chew the gum and blow bubbles, Paper and pencil to record the results

The most difficult part of this project is finding a standard way to measure bubbles that are often a moving target. Check the website below for a “bubble caliper” used for measuring record bubbles. Create your own tool. Find the widest point of the bubble.

Guess which brand will produce the biggest bubble. Give the students each one stick of each type/brand of gum. Allow them to chew the gum for a few minutes and then blow bubbles. When they are with that type of gum, have them blow a few more and measure them. Decide how many bubbles of each type of gum you are going to measure, so you record the same amount for each test.

At the end, add up the size of the bubbles for each type, and then divide by the number of bubbles measured for that type. Graph results with a bar graph to see the differences between the brands.

http://www.bubblegumheaven.com/oldchewsusuzyhomepage2.htm (A website that provides a bubble caliper to measure bubbles.)

o **Social Studies** – What was happening in the world during the time of the book. Create a timeline of important events worldwide.

o **Art**- Draw a self-portrait. Imagine you blew a giant bubble and it popped. Add that mental image to the picture. How does it look now? Blow up a balloon, then cover with paper maché. Dry, then pop the balloon.

http://www.bubblegumday.com/Bubble_Gum_Day/Activity_Guide.html

o **Music**- The 1920s were a significant time in the development of our musical history. Play pieces from that period as students transition during the day.

o **Cooking/Food** - Create an experiment to test the flavor of different types of bubble gum. Look at the gum and “record qualitative observations (those you can see, smell, hear, etc)”. Select three flavors and time them as the students chew. “Record the time when there is no flavor left.” Test the other brands. Record the results and repeat the process. Draw a graph of all the times.

• Related Books:
  o The Bubble Gum Kid by Stu Smith
  o Night Flight: Amelia Earhart Crosses the Atlantic by Robert Burleigh
  o The Cazuela That the Farm Maiden Stirred by Samantha R. Vamos
  o How to Clean a Hippopotamus by Steve Jenkins and Robin Page
  o Older than the Stars by Karen C. Fox
  o Dinosaurs by Lila Prap
  o Lester Fizz, Bubble Gum Artist by Ruth Spiro
  o Bubblemania by Lee Wardlaw
  o Bubble Gum Science by Klutz
  o Bubble Gum, Bubble Gum by Lisa Wheeler
  o Spheres by Nathan Olson

• Other titles by McCarthy:
  o The Incredible Life of Balto
  o Astronaut Handbook
  o Seabiscuit the Wonder Horse
  o Aliens are Coming!
  o Strong Man
  o City Hawk
  o George Upside Down
  o Show Dog
  o The Adventures of Patty and the Big Red Bus
  o Steal Back the Mona Lisa!

• Websites for further study or enrichment:
  o http://www.bubblegumday.com/Bubble_Gum_Day/Bubble_Gum_Day.html
    This website is all about National Bubble Gum Day.
  o http://www.youtube.com/watch?v=uVBXczQZbtM
    This cartoon video provides a preview of the book.
  o http://www.youtube.com/watch?v=E7dGRz7Evd0&feature=related
    This is a video that shows how bubble gum is made.
    This is a fun and entertaining game for kids to collect all the favors in the virtual factory.
*Note: The game provides entertainment rather than educational benefits.
http://www.pitara.com/discover/5wh/online.asp?story=36
This website is an article titled, “The Hows and Whys of Bubble Gum,” but it also has several other science resources.