


Great Idea Series

MAKING CONTACT!

MARCONI GOES WIRELESS



Monica Kulling Illustrated by Richard Rudnicki

Aligns with
Common Core
State Standards



TEACHER'S GUIDE



DEAR EDUCATOR

Making Contact! Marconi Goes Wireless tells the true story of an Italian inventor named Guglielmo Marconi who became the father of wireless communication. Monica Kulling's playful, informative text, combined with the compelling illustrations of artist Richard Rudnicki, bring an amazing inventor and his times to life.

Making Contact! can be used in the classroom in a number of ways, including

- Exploring conceptual and thematic connections such as form, function, change, connection, communication, perseverance, family, creativity, originality, history, innovation
- Introducing the genre of biography
- Enriching a science and technology unit
- As a whole class read-aloud or for independent reading and/or research

This activity guide includes a variety of discussion questions as well as whole class, small group, and independent activities and prompts to elicit a meaningful understanding of the text for children from five to eight years of age. The suggested activities can be adapted to suit the needs of your students. Where applicable, activities have been aligned with Common Core State Standards.

ABOUT THE BOOK

As a boy, Marconi loved science and invention. Born in 1874 in Bologna, Italy, to a wealthy family, Marconi grew up surrounded by books in his father's library. He was fascinated with radio waves and learned Morse code, the language of the telegraph. A retired telegraph operator taught him how to tap messages on the telegraph machine. At the age of twenty, Marconi realized that no one had invented a wireless telegraph. Determined to find a way to use radio waves to send wireless messages, Marconi found his calling. And, thanks to his persistence, on December 12, 1901, for the first time ever, a wireless signal traveled between two continents. The rest is history.



ABOUT THE AUTHOR

Monica Kulling was born in Vancouver, British Columbia. She received a BA in creative writing from the University of Victoria. She has published over forty fiction and nonfiction books for children, including picture books, poetry, and biographies. She is best known for introducing biography to children just learning to read and has written about Harriet Tubman, Houdini, Eleanor Roosevelt, and Amelia Earhart, among others. Monica Kulling lives in Toronto, Canada.

ABOUT THE ILLUSTRATOR

Richard Rudnicki was born in Saskatchewan, but now makes his home in Nova Scotia. He studied commercial art and graphic design before returning to his real love: drawing and painting. He has illustrated several books for children, including *A Christmas Dollhouse*; *I Spy a Bunny*; *Gracie, the Public Gardens Duck*; and *Viola Desmond Won't Be Budged*. He gives workshops in painting and drawing and shares a studio with his artist wife, Susan Tooke.



© Susan Tooke

PRE-READING DISCUSSION / ACTIVITIES

1. Introduce or review the genre of biography with the class. Take out a few simple biographies from the school library as examples. Give the students the opportunity to quickly skim some of the books. Introduce the idea of biography told in a picture-book format. As a class, make a list of the essential elements of a biography.
2. Discuss the difference between fiction and nonfiction. *Can a book have both fiction and nonfiction elements in it? Can you think of an example of this?*
3. What does the word “communicate” mean? The telephone is one way people communicate over a long distance. What are some other ways people communicate when they are not close to one another? Make a list of tools used for communication.

LEARNING ACTIVITIES

1. Radio Days

- Read the poem “Radio Days.”
 - o The author writes of a time when the radio was like a queen. *How were they similar?*
 - o *Do you ever listen to the radio?*
 - o *If you have a radio in your home or classroom, what does it look like? How is it the same/different from the radio pictured?*



2. Marconi as a Child and Adult

- *When and where was Guglielmo Marconi born? At the very beginning of the story, we learn about two of Marconi’s interests as a child. What were his interests? Why was he schooled at home?*
- *As a young man, what great idea did Marconi have?*
- *How did Marconi’s family help him with his inventions?*
- *As Marconi succeeded in sending a signal through the air without wires, he began to dream bigger. What were his next three steps? How many devices in your home and at school work wirelessly?*
- *What is a patent?*

(RI.1.1, RI.1.3, RI.2.1)

3. Born Inventor

- “Marconi was a born inventor. He could concentrate for hours, and, when an experiment failed, he simply started over.” *What does it mean to say he was a “born inventor”?*
- *What character traits did Marconi possess that helped him succeed? Younger students can select appropriate character traits from a teacher-generated list. Explain your choice of words using evidence from the book.*
- *Other people before Marconi had tried to create a similar invention but had not succeeded. Why do you think he was successful? Name some of the people who played a role in his success story.*

(RI.1.1, RI.2.1, RI.3.1)

LEARNING ACTIVITIES (continued)

4. Benjamin Franklin

- What does it mean to say somebody is your hero?
- Marconi's hero was Benjamin Franklin. What scientific discovery did Benjamin Franklin make? How may it have inspired Marconi? Do you have any heroes that inspire you? Paint or draw a portrait of one of your personal heroes. Underneath, write a few sentences explaining why this person is your hero. If you don't have any personal heroes, write about Marconi's hero and why he was so important to him.

(RI.1.3, RI.2.3)



5. Morse Code

- Put out flashlights, mirrors, and a small drum on a table. Ask how these tools could be used to communicate across the classroom. Distribute items to small groups and ask each group to devise a code using the items, and then present their code to the class.
- As a young boy, Marconi learned how to use Morse code.
 - What is Morse code?
 - What do you think some of the benefits of using Morse code were?
 - What do you think some of the challenges were?
- Watch the video that can be found at http://www.youtube.com/watch?v=_J8YcQETyTw to see and hear the alphabet in Morse code. Using a bell, piano keyboard, or your own voice, spell out a person's name in the class using Morse code. Ask a classmates to translate.
- Write your name in Morse code.
- In partners, write a short message that your partner has to decode.

6. Map It Out

- On a world map, locate the country where Marconi was born and grew up. Mark at least three other places on the map that played a role in the testing of Marconi's working telegraph. Why do you think Marconi chose these three sites? What did they all have in common?
- List the seven continents. Between which two continents did Marconi successfully send a wireless signal for the first time?
- Before this invention, trans-Atlantic telegraphs were sent via underground cables. What advantages do wireless transmissions have over cable?

LEARNING ACTIVITIES (continued)

7. An Exciting Day

- In a small group, write a short skit about the day that Marconi succeeded in sending a wireless signal across two continents. *Who should be in the skit? How do you think the characters in the skit would react?* Younger students can act out the story as you read it aloud.
- Pretend you are going to interview Marconi about his success on December 12, 1901. *What questions would you want to ask him?* Prepare a list of five questions. In partners, one person play the role of reporter, the other person act as Marconi. Conduct a mock interview.

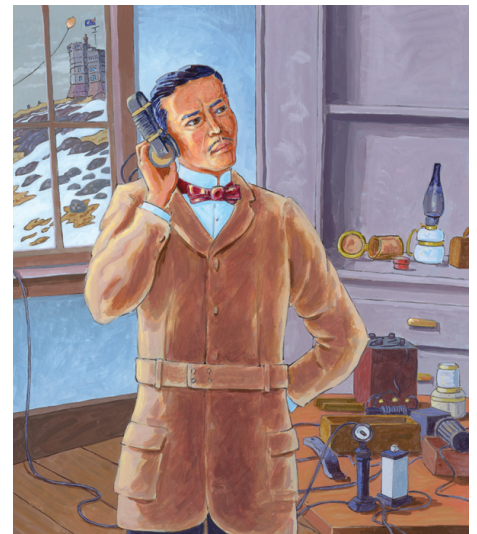
8. Timeline

- Using the information provided in the book, create a simple timeline (on paper or digitally) documenting Marconi's life and achievements as an inventor. Younger students can create a pictorial timeline; older students can use both words and pictures.

(W.2.6)

WRAP-UP DISCUSSION AND EXTENSION ACTIVITIES

1. Review the list of communication tools created in the Pre-Reading Discussion. *Can you make a connection between any of these tools and the technology Marconi created?*
2. *What does the author mean when she writes "... Marconi would grow up to become the father of wireless communication"?*



PRAISE FOR *Making Contact! Marconi Goes Wireless*

"...Richard Rudnicki's illustrations take the readers to Marconi's time and places, providing the appropriate atmosphere for his story. By resisting the need for excessive text, the affliction of many biographies for young people, and enhancing that limited text with illustrations, Tundra's Great Idea Series will continue to garner awards and recognition. With Monica Kulling at the writing helm and astutely concentrating on the anecdotes of pivotal experiences, the stories will continue to be fascinating to young readers."

– *CanLit for Little Canadians*

"Non-Fiction fans will enjoy this account of how Guglielmo Marconi invented wireless communication."

– *The Winnipeg Free Press*



LINKS

www.monickakulling.ca

www.richardrudnicki.com

<http://www.marconicalling.com/introstring.htm>

OTHER BOOKS IN THE GREAT IDEA SERIES:

It's a Snap! George Eastman's First Photograph

All Aboard! Elijah McCoy's Steam Engine

In the Bag! Margaret Knight Wraps It Up

Going Up! Elisha Otis's Trip to the Top

Spic-and-Span! Lillian Gilbreth's Wonder Kitchen

To the Rescue! Garrett Morgan Underground

Clean Sweep! Frank Zamboni's Ice Machine

Zap! Nikola Tesla Takes Charge

APPENDIX: Common Core State Standard

- CCSS.ELA-Literacy.RI.1.1** Ask and answer questions about key details in a text.
- CCSS.ELA-Literacy.RI.1.3** Describe the connection between two individuals, events, ideas, or pieces of information in a text.
- CCSS.ELA-Literacy.RI.2.1** Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
- CCSS.ELA-Literacy.RI.2.3** Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.
- CCSS.ELA-Literacy.RI.3.1** Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
- CCSS.ELA-Literacy.W.2.6** With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.