Papa’s Mechanical Fish

AUTHOR: Candace Fleming
ILLUSTRATOR: Boris Kulikov
PUBLISHER: Farrar Strauss Giroux
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ART MEDIUM:
GENRE: Historical Fiction, Mystery/Suspense
LIFE SKILLS: Personal Best, Cooperation, Curiosity, Perseverance, Problem Solving

SYNOPSIS:
During a trip to Lake Michigan in 1851, a little girl named Virena Phillips asked her
daddy if he ever wondered what it would be like to be a fish. Inventor Lodner Phillips
took it upon himself to answer his daughter’s question. With perseverance and help from
his family, he designed a submarine to take everyone on a trip to the bottom of Lake
Michigan.

BOOKTALK:
During a trip to Lake Michigan in 1851, a little girl named Virena Phillips asked her
daddy if he ever wondered what it would be like to be a fish. Inventor Lodner Phillips
took it upon himself to answer his daughter’s question. With perseverance and help from
his family, he designed a submarine to take everyone on a trip to the bottom of Lake
Michigan.

AUTHOR: Candace Fleming

Candace Fleming has been writing for as long as she can remember. She filled notebook
after notebook with stories, plays, and poems. Once she had children of her own, she
read to them all of the time and discovered that she could write children’s books and do
all of the things she loves - storytelling, musical language, history, and reading. She
currently lives in Chicago with her family.

Other books written by the author:
Tippy Tippy Tippy Splash
Bulldozer’s Big Day
Oh No!
Tippy Tippy Tippy Hide
Muncha, Muncha, Muncha
ILLUSTRATOR: Boris Kulikov

Boris Kulikov studied art at The Institute of Theatre, Music, and Cinema in St. Petersburg, Russia. His books have been featured in the “Best Books of the Year” lists for School Library Journal, Publishers Weekly, Child Magazine, and Time Magazine. He currently lives in Brooklyn, New York, and works as an illustrator.

Other books illustrated by the illustrator:

Albert Einstein
Franklin Big Dreams
Max’s Words
The Boy Who Cried Wolf

CHALLENGING WORDS:
mechanical
tinkering
clankety-bang
thump-whir
collapsible
edible
twiddles
racks his brain
troop out
clatters
whirls
sand dunes
vessel
salmon
tROUT
bobs
surface
life preserver
levers
watERTproof
copper
chugs
buoy
oars
barricades
air-cooling
air-compression
air-purifying
DISCUSSION QUESTIONS:
1. Why didn’t Papa give up his submarine invention when it didn’t work the first few times?
2. Usually inventions are made to solve problems. What would you invent to solve a problem?
3. What things did Papa need to make a submarine?
4. What invention is Papa inspired to make at the end of the book? How do you know?

ACTIVITIES WITH STANDARDS:

Science:

- Make a list of the things that Mama brings with her on the fishing trips (poles, towels, oars, life preserver, etc.). Discuss the uses of the objects in the story and how they helped Papa finish his invention. Students pick an object and draw another use for the object. Students share their pictures with each other.

  K.1.2 Identify and explain possible uses for an object based on its properties and compare these uses with other students’ ideas.

- Discuss with students how the invention of the submarine has affected human life - in positive and negative ways. Using World Book Online or another online encyclopedia, students research other simple inventions. They can draw a picture of the invention and explain its uses.

  2.4.2 Identify technologies developed by humans to meet human needs. Investigate the limitations of technologies and how they have improved quality of life.

- Using a STEM challenge planning sheet (see graphic organizer), students work in partners to find a need that they have at school or at home and then design an invention to solve the problem.

  2.4.3 Identify a need and design a simple tool to meet that need.

  3.4.2 Define the uses and types of simple machines and utilize simple machines in the solution to a —real world problem.
RELATED INTERNET SITES:

Information and images related to Lodner Phillips

Library Sparks Magazine - book activities

Submarine Facts for Kids
http://www.sciencekids.co.nz/sciencefacts/vehicles/submarines.html

PBS Design Squad
http://pbskids.org/designsquad/parenteducators/guides/invent_guide.html

STEM Ideas on Pinterest
https://www.pinterest.com/clweems/stem-ideas/

Author Website
http://www.candacefleming.com/

Illustrator Website
http://www.boriskulikov.com/