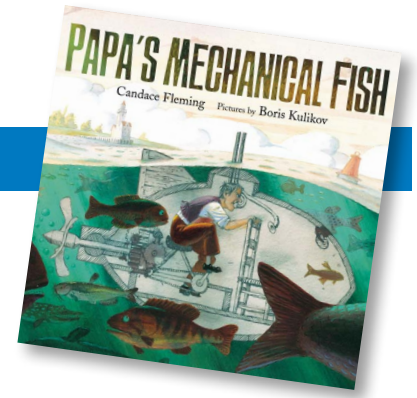


Papa's Mechanical Fish



RIF EXTENSION ACTIVITIES FOR EDUCATORS

THINK-TAC-TOE ACTIVITY OPTIONS

- ◆ Individual students can choose an activity to complete.
- ◆ Student pairs or cooperative groups can work together on a choice of their own.
- ◆ Educator can assign an activity for an individual, pairs, or groups.

<p style="text-align: center;">BRAINSTORM!</p> <p>Choose one of the following brainstorming activities to complete with a partner:</p> <ol style="list-style-type: none"> 1. Eight ways to use a pencil other than writing or drawing. 2. Two uses for a piece of already chewed gum. 3. All the possible uses for an empty soup can. <p style="text-align: center;"><i>Science, Technology, Engineering, Art</i></p>	<p style="text-align: center;">ACT IT OUT</p> <p>Although fictional, the story of <i>Papa's Mechanical Fish</i> was based on a real inventor. Choose another inventor and research that person. What did they invent? Write a short skit that explains how they may have come up with their invention. What other characters might appear in the skit?</p> <p style="text-align: center;"><i>Science, Engineering, Art, Writing</i></p>	<p style="text-align: center;">DISCOVERY VS. INVENTION</p> <p>Explain the difference between a discovery and an invention. Create a 2-column graphic organizer. List 3–5 inventions on one side and 3–5 discoveries on the other. Are there any discoveries that led to inventions? Are there inventions that led to discoveries? If so, describe how this might have occurred.</p> <p style="text-align: center;"><i>Science, Technology, Engineering, Writing</i></p>
<p style="text-align: center;">HALL OF FAME</p> <p>Choose an inventor and create a poster to display in an Inventors' Hall of Fame exhibit. Include biographical information, their greatest invention, and other interesting facts. Answer the journalism questions: who, what, when, where, why, how, and so what? Add drawings or pictures from the internet to your poster.</p> <p style="text-align: center;"><i>Science, Technology, Art, Writing</i></p>	<p style="text-align: center;">THANK YOU, THANK YOU!</p> <p>Think of an invention that you cannot live without. Is it light bulbs, cars, or medicine? Maybe pizza? Research who invented your "must have" item. Design a thank you card appropriate for the invention. Inside, write a thank you note telling the inventor why the invention is so important to you. Illustrate your card.</p> <p style="text-align: center;"><i>Art, Writing</i></p>	<p style="text-align: center;">PATENT PENDING</p> <p>When inventors invent a new item, they must get it protected by a patent. Research the patent process. Answer the following questions: What types of patents are available? Which is most common? Why are patents necessary? What might happen if an inventor did not get a patent?</p> <p style="text-align: center;"><i>Technology, Writing</i></p>
<p style="text-align: center;">AD CAMPAIGN</p> <p>If you could invent anything in the world, what would it be? Make an advertisement—either written or live action—to share your invention with the world. Be sure to explain why people need your invention. Your ad should be catchy enough that everyone will want to buy your invention! Don't forget to name your invention!</p> <p style="text-align: center;"><i>Science, Engineering, Art</i></p>	<p style="text-align: center;">SUBMERSIBLE TIMELINE</p> <p>When did inventors first begin trying to build submarines? Visit this site for a timeline: www.submarine-history.com/NOVAone.htm. Why do you think the first inventor wanted to build an underwater vessel? What problems would they have had to solve? How did designs change over time? Why?</p> <p style="text-align: center;"><i>Science, Technology, Math, Writing</i></p>	<p style="text-align: center;">MARINE MATH</p> <p>Use the following facts about US Navy submarines to write 3–5 word problems.</p> <ul style="list-style-type: none"> ● A typical sub has a crew of 141 people. ● Subs can travel about 29 miles per hour (25 knots). ● Subs usually carry 400 movies for the crew to watch. <p>Trade problems with a partner and solve!</p> <p style="text-align: center;"><i>Science, Math, Writing</i></p>