Balloons and Blimps

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Materials needed:

- An un-inflated balloon

One of the primary roles for blimps in World War II was to provide protection for military and civilian cargo vessels from German U-boats (submarines) prowling just off the U.S. East Coast. Blimp crews of about 10 men would fly on missions that would last anywhere from 9 to 20 hours, depending on the weather and the need for surveillance.

To understand the importance of these blimps and how they functioned, you can:

Activity 1

- Use your breath to inflate the balloon and tie a knot to secure the air inside.
- Hold the balloon in your hand, and then remove your hand from under the balloon. What happens?
- Can you keep the balloon in the air? How?
- Blimps are lifted into their air through the science of gases and their relative weights, or molecular density. What gas are blimps filled with that is "Lighter than Air"?

Activity 2

- Blimps use gasses to float high in the sky, but they also needed to move in specific directions to watch for German submarines along the coast. How do blimps move forwards, or turn right and left? Use the picture below for clues.

Activity 3

- A blimp was so much more successful than an airplane at spotting enemy submarines during World War II. The reason for that is the same reason why for sporting events like football games today, blimps are used to provide aerial video footage of the game rather than planes. Why do you think that was the case?
- After answering the last question, describe what you think were some advantages and disadvantages of using blimps in WWII? If you can, do some more research on Naval airships (blimps) to find out!


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