

Name:

Date:

BUOYANCY

PRIMARY SOURCE

 View

 Read

The Lucia was an American steamship used during World War I. The ship was outfitted with thousands of airtight, wooden "buoyancy boxes." These were designed to help the ship float if a torpedo struck it.

1. Before the torpedo attack, was the Lucia positively, negatively, or neutrally buoyant? Explain your answer.

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2. Seawater weighs about 8.5 pounds per gallon. How many gallons of seawater did the Lucia displace? Explain your answer.

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3. Explain how airtight boxes should help a sinking ship stay afloat.

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4. Form a hypothesis for why the buoyancy boxes failed to save the Lucia.

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