

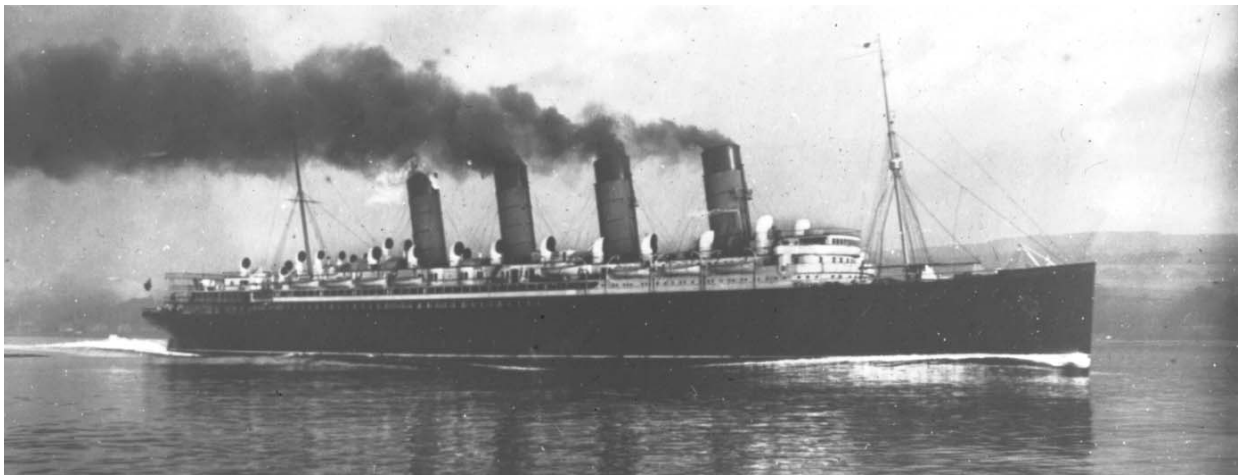
MAURETANIA

Sinking or Floating?

Fact: A metal block will sink in water.

Fact: Mauretania was a very heavy steel ship!

I wonder why Mauretania didn't sink if she was such a heavy metal object?



Try this practical task and see if it helps answer the question:

- 1. Roll a ball of plasticine about 5cm across.*
- 2. Place it in a container of water. It should sink to the bottom.*
- 3. Try it again but this time mark with tape and a pencil on the outside of the bowl to show the water level before and after.*
- 4. Now take out the ball, dry it and shape it into a boat or saucer shape. This might take a few tries and several minutes.*
- 5. Carefully place the boat on the water and it should float.*

You should also see that the water level has gone up higher than before! This means that the boat shape which floats has pushed away or 'displaced' more water than the ball shape which sank.

Draw diagrams of steps 2 and 5 from the practical task described above.

Draw a simple diagram of Mauretania in water.

Try and explain why Mauretania floats and label your diagram with the words...

*Weight pushing down
Upthrust pushing up
Water being displaced*

Name two things which will sink

Name two things which will float