



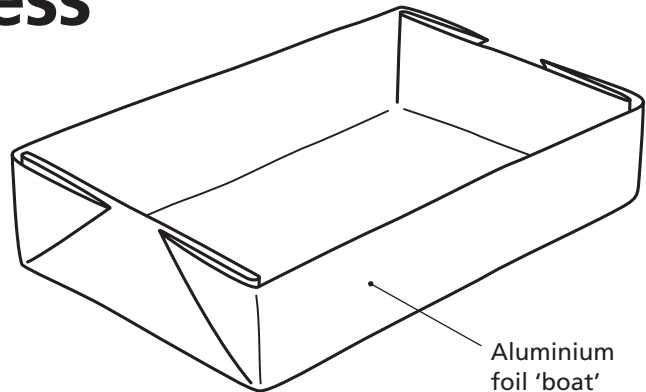
Name: Form:

Based on pages 8 and 9 of *Changing from solids to liquids to gases*

Testing for hardness

Try this...

1. Fold a piece of aluminium foil to make a boat with sides about 1cm high, as the diagram shows.
2. Make two more identical boats.
3. Put a 1cm x 1cm x 2cm block of soft margarine in each boat. Use a plastic butter knife to make the surface of the block smooth and flat.
4. Put one boat in the fridge.
5. Fill one bowl with cold tap water, and fill another bowl with hot tap water.
6. Float a second boat in the bowl of cold tap water, and the last boat in the bowl of hot tap water. Leave them for two minutes.
7. Take the first boat out of the fridge.
8. Hold a chopstick vertically above the margarine in the first boat from the fridge. Hold the lower end of the chopstick about 2cm above the margarine, then let it drop onto the margarine surface. Note how the end of the chopstick affected the surface.



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9. Take the boat out of the bowl of cold tap water and repeat step 8 on the margarine.

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10. Take the boat out of the bowl of hot tap water and repeat step 8 on the margarine.

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Looking at the results.

11. What do the results show?

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