

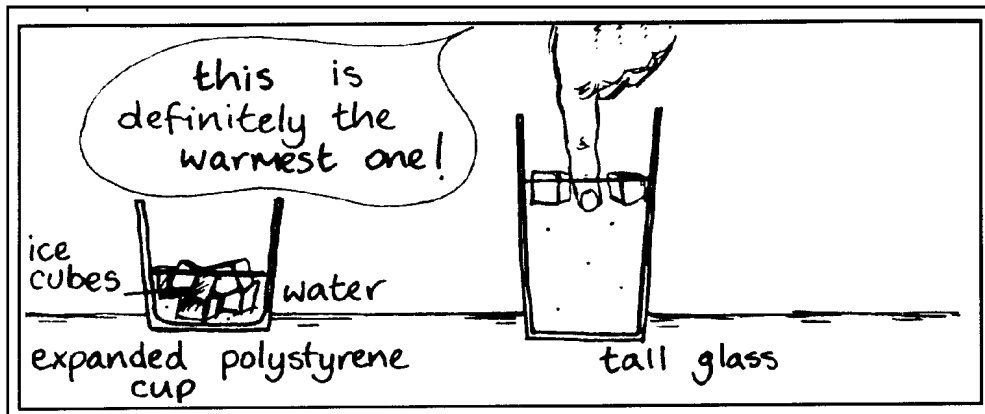
Activity A4a: Can expanded polystyrene keep hot water warm and cold water cool?



Do you think this is a fair way to find out if expanded polystyrene can keep hot water warm?



Do you think this is a fair way to find out if expanded polystyrene keeps cold water cool?



Use this space to show your own fair test.

A large empty rectangular box with an orange border, intended for a student to draw their own fair test.

Activity A4b: Does expanded polystyrene keep things warm?



I predict that the _____ cup will keep the water warmest.

You will need:

- 3 thermometers
- stop-watch or egg timer
- some hot water

metal

polystyrene

expanded polystyrene

Fill each container with the same amount of water.

Measure the temperature in each container every two minutes.

Use the sheet provided to record the temperatures.

In which cup did the water stay warmest? _____

Why do you think this is? _____

Activity A4c: Do plastics keep things cold?



I predict that the _____ cup will keep the water coolest.

You will need:

- 3 thermometers
- stop-watch or egg timer
- ice-cubes

metal

polystyrene

expanded polystyrene

Fill each container with the same amount of water.

Measure the temperature in each container every two minutes.

Use the sheet provided to record the temperatures.

In which cup did the water stay warmest? _____

Why do you think this is? _____

Activity A4d: Keeping water warm



Temperature in °C taken every 2 minutes											
Cup	Start	2	4	6	8	10	12	14	16	18	20
Metal											
Polystyrene											
Expanded polystyrene											

Which cup kept the water warmest? _____

Why? _____

Activity A4e: Keeping water cold



Temperature in °C taken every 5 minutes										
Cup	Start	5	10	15	20	25	30	35	40	45
Metal										
Polystyrene										
Expanded polystyrene										

Which cup kept the water coolest? _____

Why? _____

Activity A4f: Temperature graph for cup



Activity A4h: Temperature graph for _____ cup

