

Physics - Key Stage 3 Matter

Atmospheric Pressure

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Explain why Mars has a thinner atmosphere than Earth?



The collapsing can

1. At the start the pressure inside the can and outside the can is _____

2. When the can is heated the pressure inside _____ because the particles....

3. When the can is put into cool water, the pressure inside will _____ because the particles will...

4. The can is crushed because the pressure outside is suddenly _____ than inside.



Why are aeroplane windows so thick?

1. Where is the aeroplane?
2. What is the pressure like outside the plane?
3. Why?
4. So what is the pressure like inside the plane?
5. What do the thick windows prevent?



Independent Practice

Altitude (ft)	Boiling point (°C)
0	100
1000	98.9
2000	97.8
3000	96.8
4000	95.7

1. Look at the table. Describe how boiling point changes with altitude.
2. Explain why water boils easier at greater heights.



Independent Practice

Water boils at 97°C at 1300ft above sea level, but at 3500ft it boils at 91°C.

Calculate the percentage decrease in boiling point

$$\% \text{ difference} = (\text{temp difference} \div \text{initial temp}) \times 100$$

