

**A'LEVEL NEW CURRICULUM
ASSESSMENT REVISION ITEMS
PHYSICS
TERM THREE
2025**

Turn over

Item 1

Scenario

A construction company is building a long steel bridge in Northern Uganda. The engineers observe that during hot afternoons, the bridge materials expand, and in the cold mornings, they contract. They are concerned that without proper planning, the expansion might damage the structure.



Task

As a Physics student, explain how the engineers can apply the concept of thermal expansion to prevent damage to the bridge.

Item 2

Scenario

A science club at your school is investigating how weather balloons rise and eventually burst at high altitudes. They discover that as the balloon rises, the pressure outside decreases while the gas inside expands.



Task

Using your knowledge of gas laws, explain why the balloon expands as it rises and what causes it to eventually burst.

END

Always live a simple life!