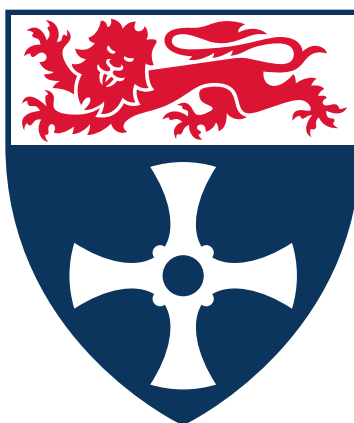


Suitable for:
KS4, KS5

Newcastle University

School of Maths, Stats, and Physics



Cloud Chambers

This activity works well alongside:

[Radioactivity](#)

See alpha radiation travel through the air, leaving trails of cloud behind. A radioactive source is placed in a clear box filled with isopropyl alcohol vapour and chilled with dry ice. The emitted alpha particles ionise the vapour, causing it to condense into thin trails of cloud which are visible for a few seconds. Cosmic rays can also sometimes be seen.

Prerequisites

Before starting this activity, participants should be familiar with:

- Alpha radiation

Links to Curriculum

This activity draws on the following areas of the curriculum:

- Radioactivity/whatever

Safety Considerations

pg. 2 Handling of dry ice

pg. 2 Use of isopropyl alcohol

pg. 2 Handling of radioactive ^{232}Th

Date→									
Equipment	Per Set	Out	In	Out	In	Out	In	Out	In
Acrylic Box	1								
Isopropyl Alcohol	1 bottle								
Polystyrene Block	1								
Dry Ice	1 large scoop								
Radioactive Source	1								
Ruler	1								
Thermal Gloves	1 pair each								