

ELEMENT TRENDLINES

You will be given one element from the element set to research. Complete this sheet as you find relevant information about your element. We will use the data collected to form a class timeline and trendlines.

Make sure you collect data with the correct units. DO NOT OPEN THE SAMPLE CONTAINERS.

Your Name:	Element Name:
State two uses for your element:	
History	
Year of Discovery:	
Basic Facts	
Atomic Number:	Relative Atomic Mass (Mass Number):
Group Number (periodic table):	Period Number (periodic table):
Properties	
Melting Point (°C):	Boiling Point (°C):
Density (g/cm³):	Specific Heat Capacity (J kg⁻¹°C⁻¹):
Other Information	
Calculated Atomic Radius (pm):	% Abundance in Earth's Crust:

Summary Table

- Complete the table below based on your position in each timeline/trendline.
- You do not need to write numbers, just **low/medium/high** or **early/middle/late**.
- If your element was at the very start or end of a line, add this to your comment in the table too.

Atomic Number	Relative Atomic Mass	Year of Discovery	Melting Point °C	Boiling Point °C	Density g/cm ³	Specific Heat Capacity J kg ⁻¹ °C ⁻¹	Calculated Atomic Radius (pm)	Abundance in Earth's Crust %

Choose **two** results from the summary table and explain WHY you think your element appeared where it did in the timeline or trendline.

How valuable are the elements?

A trendline that changes often is the price or value of each element. What is the **price per kg** of your element in **today's** market? How does this compare to the other elements?

What factors contribute to an element being valuable? Explain with reference to your element.

How could you determine the cost of the element **in your sample** container?

Calculate the cost of the element in your sample container. Show all working steps.

Add up the costs of each element in the kit. How much would it cost to buy this set today?