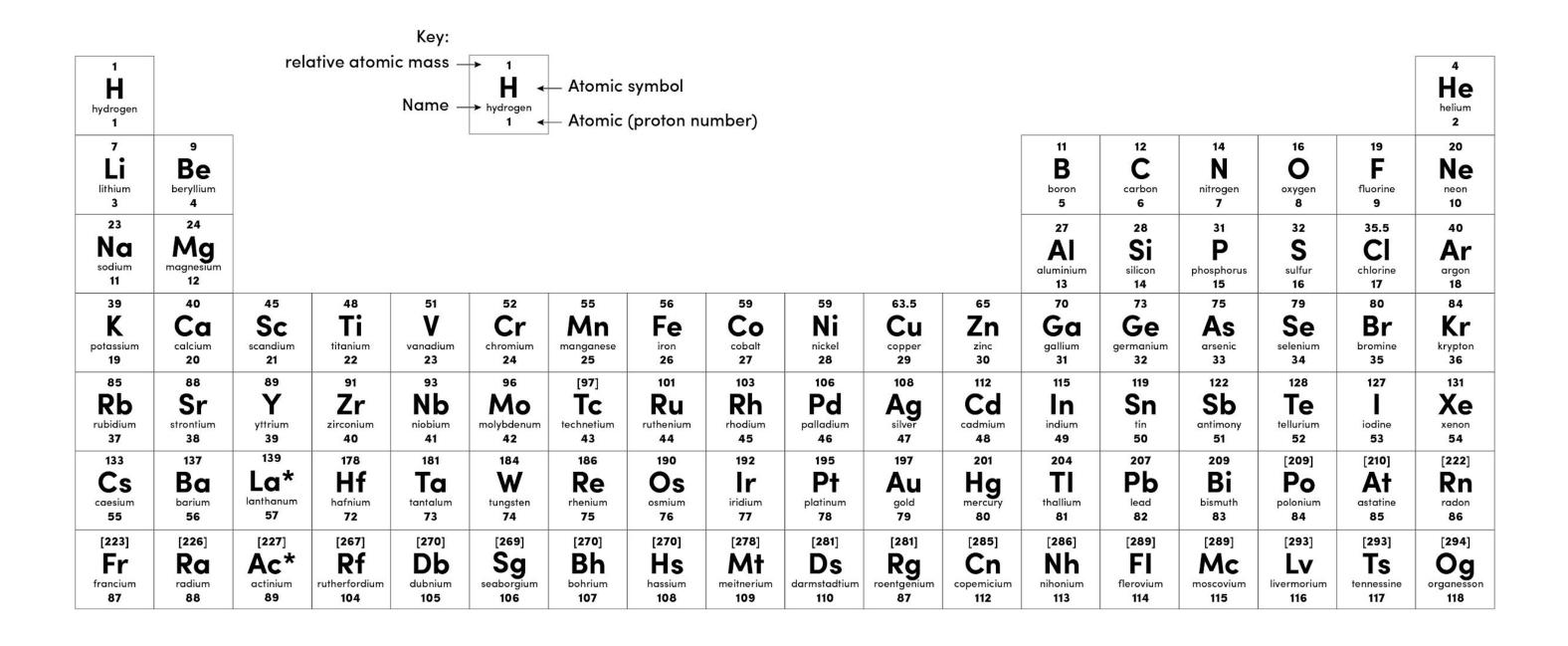
Combined Science - Chemistry - Key Stage 4 Chemical Change

# Redox

Mr Campbell



### **Periodic Table of Elements**





<sup>\*</sup> The lanthanides (atomic numbers 58 – 71) and the Actinides (atomic numbers 90 – 103) have been omitted. Relative atomic masses for **Cu** and **Cl** have not been rounded to the nearest whole number.

## Question 1.

Gold, iron and aluminium can all be found in the Earth's crust. Describe how each metal is extracted from its ore. Explain the reason for the method of extraction based on the metals reactivity.



# ANSWERS



#### Question 1.

#### Gold

- Is uncombined in the Earth's crust
- This is because it is unreactive

#### Iron

- Iron is extracted from its ore by heating with carbon
- The iron oxide is reduced/oxygen removed from iron by carbon
- This method is used because iron is less reactive than carbon

#### Aluminium

- Aluminium is extracted from its ore by electrolysis
- This is because aluminium is more reactive than carbon
- Carbon can not remove the oxygen from aluminium oxide

