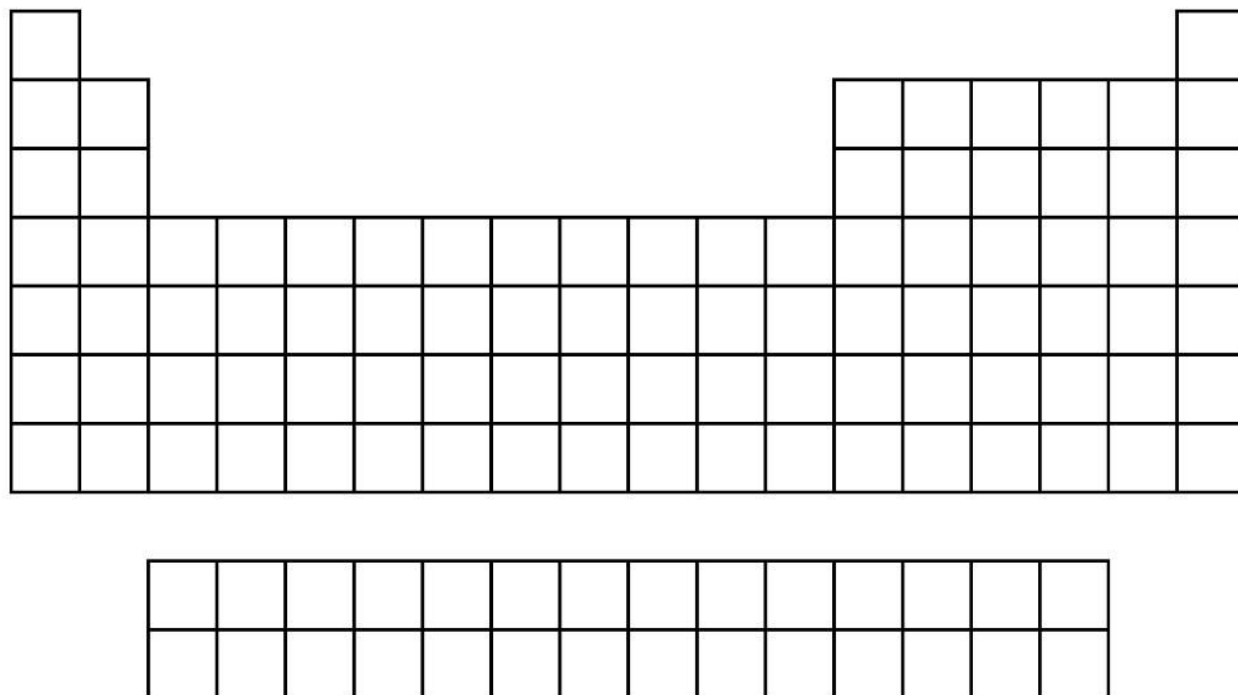


Periodicity



Indicate

- **Groups**
- **Periods**
- **Metals/non-metals**
- **Alkali metals**
- **Transition metals**
- **Halogens**
- **Noble gases**

Bonding type	Definition	Structure
Metallic		
Covalent		
Monatomic		

Metallic bonding diagram

Covalent bonding diagram

Bonding in the first 20 elements

H							He
Li	Be	B	C	N	O	F	Ne
Na	Mg	Al	Si	P	S	Cl	Ar
K	Ca	<input type="checkbox"/>	Metallic				

<input type="checkbox"/>	Covalent network	<input type="checkbox"/>	Covalent - small molecule
<input type="checkbox"/>	Covalent - Diatomic	<input type="checkbox"/>	Monatomic

Covalent Radius:



Period 2 Elements - use page 7 of data book

Element	Li	Be	B	C	N	O	F
Covalent Radius							

Trend across a period:

This is because:

Element	Covalent Radius
Li	
Na	
K	
Rb	
Cs	

Group 1 Elements - use page 7 of data book

Trend down a group:

This is because:

Ionisation Energy



Why is the second ionisation energy always higher than the first?

The first ionisation energy of magnesium is 738 kJ/mol, the second is 1451 kJ/mol and the third is 7733 kJ/mol. Why is the third ionisation so much higher than the second?

Period 2 elements - use page 11 of data book

Element	Li	Be	B	C	N	O	F	Ne
1st ionisation energy								

Trend across a period:

This is because:

Element	1st ionisation energy
Li	
Na	
K	
Rb	
Cs	

Group 1 elements - use page 11 of data book

Trend down a group:

This is because:

Electronegativity



Element	Li	Be	B	C	N	O	F
Electronegativity							

Period 2 elements - use page 11 of data book

Trend across a period:

This is because:

Group 1 elements - use page 11 of data book

Element	Electronegativity
Li	
Na	
K	
Rb	
Cs	

Trend down a group:

This is because: