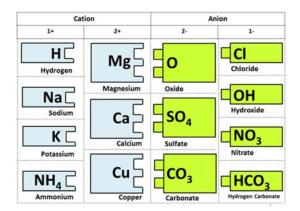


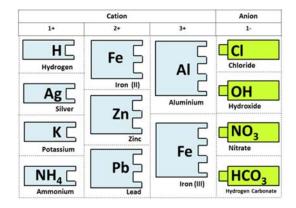
Science 1.8 AS 90947 Investigate selected chemical reactions

Changing compound words into formulas – Visual balancing

Success Criteria: complete each level before moving onto the next

- o Basic: write ion formula for the following named ion compounds
- o Proficient: write **the number of each ion** required to balance the charges
- o Advanced: balance the ion compounds to create a neutral compound





Example

Name of	calcium	hydroxide
compound		
Formula of ions	Ca ²⁺	OH-
Number of each	1,	2
ion required to		
balance charges		
Formula of	Ca(C	OH) ₂
compound		

Remember:

- + charge means electrons are missing from the ion compared to when they were atoms, the number by the + tells us how many electrons are missing. Each missing electron is a space.
- **charge** means electrons are added to the ions compared to when they were atoms, the number by the tells us how many electrons are added. Each added electron is a tab.

The total number of tabs and spaces in the ions must match to make a neutral compound.

We don't write the number 1 in compounds.

Put brackets around a compound ion (that has more than one type of atom in it) if you need 2 or more of them to balance in a compound

Name of	magnesium	chloride
compound		
Formula of ions		
Number of each		
ion required to		
balance charges		
Formula of		
compound		

Name of	sodium carbonate
compound	
Formula of ions	
Number of each	
ion required to	
balance charges	
Formula of	
compound	

Name of	copper	nitrate
compound		
Formula of ions		
Number of each		
ion required to		
balance charges		
Formula of		
compound		

Name of compound	iron (II)	hydroxide
Formula of ions		
Number of each ion required to balance charges		
Formula of compound		

Name of	lead	oxide	
compound			
Formula of ions			
Number of each			
ion required to			
balance charges			
Formula of			
compound			

Name of	silver	nitrate	
compound			
Formula of ions			
Number of each			
ion required to			
balance charges			
Formula of			
compound			

Name of	calcium	carbonate
compound		
Formula of ions		
Number of each		
ion required to		
balance charges		
Formula of		
compound		

Name of	iron (III)	nitrate
compound		
Formula of ions		
Number of each		
ion required to		
balance charges		
Formula of		
compound		

Name of	zinc	oxide	
compound			
Formula of ions			
Number of each			
ion required to			
balance charges			
Formula of			
compound			

Name of	lead	chloride	•
compound			
Formula of ions			
Number of each			
ion required to			
balance charges			
Formula of			
compound			