

## Acids/Bases Worksheet

Drag and drop the words/phrases from this bank to complete the blank spaces in the worksheet.

Sour taste	Is colourless when added	Hydrogen ion acceptor	$\text{CH}_3\text{NH}_3^+$	High because of the presence of hydroxide ions.	Feels slippery
Donates electron pairs	Produces a red colour when added	$\text{HNO}_3/\text{NO}_3^-$ acid-conjugate base pair	Turns blue litmus red	Proton donor	$\text{NO}_3^-$
$\text{CH}_3\text{NH}_2/\text{CH}_3\text{NH}_3^+$ base-conjugate acid pair	High due to presence of hydrogen ions	Has hydrogen and dissociates to produce $\text{H}^+$	$\text{H}_2\text{O}/\text{OH}^-$ acid-conjugate base pair	Has hydroxide and splits to produce $\text{OH}^-$	Produces a purple colour when added
$\text{H}_2\text{O}/\text{H}_3\text{O}^+$ base-conjugate acid pair.	$\text{H}_3\text{O}^+$	$\text{OH}^-$	Bitter taste	Turns red litmus blue	Has a pinkish hue when added
Has a corrosive feel	Electron pair acceptor				

1. Define the terms acid and base using the different models.

	Arrhenius Model	Bronsted-Lowry Model	Lewis Model
Acid			
Base			

2. Below are some properties that are associated with acids and bases. Use words from the bank to fill in the correct blank space.

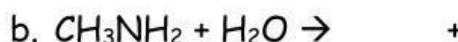
Property	Acid	Base
Conductivity in aqueous solution		
Taste		
Feel		
Reaction with metal	Produces H <sub>2</sub> gas	Produces H <sub>2</sub> gas and a salt
Reaction with carbonate	Produces CO <sub>2</sub> gas	Produces CO <sub>2</sub> gas
Colour with litmus paper		
Colour with universal indicator		
Colour with phenolphthalein		

3. Using your knowledge of the Bronsted-Lowry model of acid and bases, complete the equation and indicate each conjugate acid-base pair.



1<sup>st</sup> Conjugate acid-base pair

2<sup>nd</sup> Conjugate acid-base pair



1<sup>st</sup> Conjugate acid-base pair

2<sup>nd</sup> Conjugate acid-base pair