

Calculating the pH of bases.

Pre-lesson assignment: Textbook page 328-329

Define the following terms

- Weak base
- Strong base

Make notes on calculating the pH of bases.

Use the following questions as guidance.

1. Write an equation for the dissociation of sodium hydroxide in water.
2. Explain why sodium hydroxide is monobasic.
3. Demonstrate how to calculate $[\text{OH}^-]$ from the concentration of a strong base, and then how to use K_w to give $[\text{H}^+]$ and thus pH.

Note: You do not need to be able to calculate the pH of a weak base for the exam. However, the method is essentially the same as for a weak acid, but using K_b (base dissociation constant) to calculate $[\text{OH}^-]$. We can then find pH using K_w . If you are attending interviews for top universities, it is worth looking into this.

4. Explain the term pOH and how it is related to pH

Now ensure you have done the summary questions on pages 314, 318, 321, 325 and 329