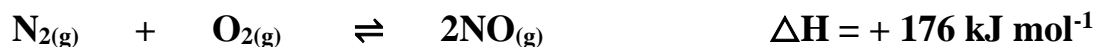


MINISTRY OF EDUCATION, HERITAGE AND ARTS
YEAR 12 CHEMISTRY
REVISION WORKSHEET 4

Write the answers to the following questions in your exercise/activity books.

Strand 3: Reactions

- Determine the concentration (in mol L⁻¹) of a 500 mL of magnesium chloride solution containing 2.4 g of the salt. (2 marks)
- During an experiment, 500 mL of distilled water was added to a 500 mL of 1 mol L⁻¹ solution of sodium chloride. Determine the concentration of the diluted solution. (3 marks)
- State how the following glassware is cleaned during a titration experiment.
 - Pipette (1 mark)
 - Conical flask (1 mark)
 - Burette (1 mark)
- State why it is important to perform a pilot titration before the actual titration is carried out. (1 mark)
- State, with reasons, whether the chemical species in **bold** in the following reactions has been oxidised or reduced.
 - $\text{Zn}_{(s)} + \text{Pb}^{2+}_{(aq)} \rightarrow \text{Zn}^{2+}_{(aq)} + \text{Pb}_{(s)}$ (2 marks)
 - $\text{H}_2\text{O}_{(l)} + \text{CO}_{(g)} \rightarrow \text{H}_2_{(g)} + \text{CO}_2_{(g)}$ (2 marks)
- Define **Le Chateliers' Principle**. (1 mark)
- Consider the reaction equation given below and answer the questions that follow.



For the above reaction, predict the **shift in equilibrium** if:

- the temperature is decreased. (1 mark)
- NO gas is removed as it is formed. (1 mark)