

## **MOLE CONCEPT**

**A student was given 1.0g of an unknown metal carbonate with the formula  $MCO_3$ . They dissolved it in 50cm cubed of 1.0M hydrochloric acid (HCl). The resulting solution was then titrated against 1.0M sodium hydroxide (NaOH), and it required 30cm cubed for complete neutralization.**

- Task A: Write the equation for the reaction between  $MCO_3$  and HCl.**
- Task B: Calculate the moles of NaOH used.**
- Task C: Determine the moles of HCl that reacted with the carbonate.**
- Task D: Find the relative atomic mass of M**