# Gravimetric Analysis of Rock Salt

# Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Total: /32 %

### Science Inquiry Skills

* conduct investigations safely, competently and methodically for the collection of valid and reliable data, including: the use of devices to accurately measure temperature change and mass, flame tests, separation techniques and heat of reaction
* represent data in meaningful and useful ways, including using appropriate graphic representations and correct units and symbols; organise and process data to identify trends, patterns and relationships; identify sources of random and systematic error and estimate their effect on measurement results; and select, synthesise and use evidence to make and justify conclusions

### Science Understanding

* percentage composition of a compound can be calculated from the relative atomic masses of the elements in the compound and the formula of the compound.
* the mole concept relates mass, moles and molar mass and, with the Law of Conservation of Mass; can be used to calculate the masses of reactants and products in a chemical reaction.
* chemical reactions can be represented by chemical equations; balanced chemical equations indicate the relative numbers of particles (atoms, molecules or ions) that are involved in the reaction

In this investigation you will work in pairs for the experiment (Day 1) and then complete the written section individually under test conditions (Day 2).

* The practical task will be to determine the percentage of sodium chloride in a sample of rock salt. Marks will be awarded for accuracy of results. (5 marks)
* The written task is to analysis your results and complete questions about percentage purity. (27 marks)

Weighting 5%