

GRTT INTERNATIONAL GCSE CHEMISTRY

ACTIVITY 2 - TASK

Purpose

The purpose of this activity is to look at an embedded practical in the 4CH1 specification and consider how your students could do this practical in a way that covers some of the experimental skills on p28 of the specification and also prepare them for the examination.

This is the assessment statement showing the embedded practical:

1.7C *practical: investigate the solubility of a solid in water at a specific temperature*

These are the experimental skills:

Experimental skills

The best way to develop experimental skills is to embed practical investigations in teaching or theory. The development of knowledge and experimental skills can then happen together, leading to secure acquisition of both knowledge and skills.

Our practical investigations are embedded within 2: *Chemistry content* as specification points in italics. The skills developed through these and other practicals will be assessed through written examinations.

In the assessment of experimental skills, students may be tested on their ability to:

- solve problems set in a practical context
- apply scientific knowledge and understanding in questions with a practical context
- devise and plan investigations, using scientific knowledge and understanding when selecting appropriate techniques
- demonstrate or describe appropriate experimental and investigative methods, including safe and skilful practical techniques
- make observations and measurements with appropriate precision, record these methodically and present them in appropriate ways
- identify independent, dependent and control variables
- use scientific knowledge and understanding to analyse and interpret data to draw conclusions from experimental activities that are consistent with the evidence
- communicate the findings from experimental activities, using appropriate technical language, relevant calculations and graphs
- assess the reliability of an experimental activity
- evaluate data and methods taking into account factors that affect accuracy and validity.

Your task

Consider how you might prepare your students for a question such as the one shown in Activity 2 Exam Question

- Would you use the method in the exam question - class practical or demonstration?
- Would you use the RSC method shown in Activity 2 Practical Method - as it stands or how would you modify it?
- Which of the Experimental Skills above might be covered?