Name Date

Worksheet 17.1: Sodium thiosulfate   
and hydrochloric acid changing   
temperature practical

Analysis of results

**1** Record your observations from the experiment, including those which could be evaluated as sources of errors.

**2** Record raw quantitative data in a table. You need to include units and absolute uncertainties   
where appropriate.

**3** Calculate the rate of reaction for each temperature.

**4** Draw a graph for rate against temperature.

**5** Work out the percentage uncertainties for all measurements.

**6** Explain your data using collision theory.

Evaluation of experiment

**7** How would heat loss to the surroundings affect the rate of reaction?

**8** What are the other systematic errors for this experiment?

**9** In your experiment you are timing how long it takes for the cross to disappear. As this is done by human eye it could be a source of error, how could this be improved?