

5th The learner understands that chemistry is a process of evidence-based enquiry involving collection of evidence and the development of theories that help us explain the evidence (science process skills)

- Aim of the experiment
- Variables for the experiment
- Hypothesis
- Procedure of the experiment
- Risks and mitigation
- Presentation of data
- Recording of data
- Data analysis and interpretation
- Conclusion

Assessable areas

- a) Rates of chemical reactions
- b) Energy changes during chemical reactions
- c) Formulae, stoichiometry and mole concept
- d) The reactivity series
- e) Solubility of salts – salt preparation
- f) Soapy detergents and hard water

Basis of assessment	Assessment criteria	Scoring
Aim of the experiment	<ul style="list-style-type: none"> • Aim of experiment with both key words • Aim of experiment with one key word • No aim of the experiment 	02 01 00
Variables of the experiment	<ul style="list-style-type: none"> • Independent, dependent and controlled • Independent and dependent or independent and controlled or dependent and controlled variable • Independent or dependent or controlled variable • No variable 	03 02 01 00
Hypothesis	<ul style="list-style-type: none"> • Hypothesis related to experiment with both key words • Hypothesis related to experiment with one of key words • No / wrong hypothesis of the experiment 	02 01 00
Procedure	<ul style="list-style-type: none"> • Relevant material, relevant procedure, coherent procedure of the experiment • Relevant materials and procedure • Either relevant material or relevant procedure • No relevant material and procedure 	03 02 01 00
Risks and mitigations	<ul style="list-style-type: none"> • Any one risk identified and mitigated • Any one risk identified or mitigated • No risk identified or mitigated 	02 01 00
Presentation of data	<ul style="list-style-type: none"> • 2/3 of required sets of data appropriately presented • 1/3 of required sets of data appropriately presented • Data appropriately presented without required sets • Data partially appropriately presented without required sets • No set of data presented 	04 03 02 01 00

Basis of assessment	Assessment criteria	Scoring
Recording of data	<ul style="list-style-type: none"> • Appropriate recording of data within the error margin • Partial appropriate recording of data within the error margin • Appropriate recording of data outside the error margin • Partial appropriate recording of data outside error margin • No data recorded/ data recorded outside error margin 	04 03 02 01 00
Data analysis and interpretation	Method used is: <ul style="list-style-type: none"> • Appropriate and accurate • Appropriate and partially accurate • Appropriate and inaccurate • Inappropriate and inaccurate 	03 02 01 00
Conclusion	<ul style="list-style-type: none"> • Conclusion based on data interpretation • No conclusion based on data interpretation 	01 00