

IB Chemistry Internal Assessment guide - IA checklist

Report structure

	Absent	Partial	Complete
The report has a title that reflects the aims of the investigation			
The candidates personal code (plus the codes of any groups member(s) are included			
The word count is stated at the start of report			
The report has an introductory paragraph that introduces the reader to the investigation			
The word limit of the report does not exceed 3000 words (not including data tables, sketches, graphs, headings, references or bibliography)			
SI units are used throughout the report			
Any work that is not the work of the student is clearly referenced using an appropriate referencing system			
Tables, figures, sketches, images and graphs are labelled using Figure 1, Table 1, etc			
A works cited list is included at the end of the report			
The report has been checked for academic honesty and correct use of citations			

A cover page, table of contents and appendices are not required.

Research design

	Absent	Partial	Complete
The research question includes the independent variable (including its values), the dependent variable and the methodology used			
The background context includes relevant scientific theory that is directly related to the research question			
The background context includes justification for the choice of methodology and the range of the independent variable			
A hypothesis is described based on the relevant scientific context			
The independent, dependent and control variables are quantifiable and described in detail			
The independent variable has at least five changes and allows for the collection of quantitative data			
The materials, chemicals and apparatus used in the investigation are listed			
Any preliminary work or modifications to the procedure are described and explained			
The chosen methodology allows for the collection of sufficient quantitative and qualitative data			
The procedure is described in sufficient detail that it would allow it to be repeated by another person			

The report contains annotated sketches, diagrams or photographs that aid in the description of the procedure			
A thorough risk assessment has been carried out, including how any waste chemicals will be disposed of and any ethical or environmental concerns in the investigation			

Data analysis

	Absent	Partial	Complete
Quantitative raw data is presented in a data table, together with units and absolute uncertainties			
The raw data is recorded to the appropriate number of decimal places or significant figures			
Qualitative data is included if relevant to the investigation			
The processed data is clearly presented (with example calculations) and the calculations have been checked for accuracy			
The data processing has been carried out taking into account the number of decimal places or significant figures in the raw data			
Plotted graphs have a title, labelled axis, error bars and a best-fit line			
Errors and uncertainties have been propagated correctly and reported to the appropriate precision			

An R^2 value has been calculated using appropriate graphing software			
Any outliers in the data are dealt with appropriately			

Conclusion

	Absent	Partial	Complete
There is a clear discussion of whether or not the data answers the research questions			
There is a discussion concerning the validity and reliability of the data			
The conclusion is justified through comparison to the established scientific context, including references			
The trend(s) or patterns in the data are explained using the relevant scientific context, including references			
The hypothesis has been discussed (if applicable)			
The variation, or spread of the data, has been considered			
If a theoretical or literature value exists the percentage error has been calculated (if applicable)			
The main type of error in the investigation (random or systematic) has been identified			
If calculated, the R^2 value has been discussed with reference to the best-fit line			

Evaluation

	Absent	Partial	Complete
Relevant weaknesses related to the methodology have been identified and discussed			
Relevant weaknesses related to the control variables have been identified and discussed			
Relevant limitations related to the methodology have been identified and discussed			
Evidence supporting the identified weakness and limitations is included			
The impact of the weaknesses and limitations on the quality of the data has been explained			
Realistic and relevant improvements to the weaknesses and limitations identified have been explained			