

Extended essay: Example commentary		
DP subject: (subject-focused essay)	Chemistry	
DP subjects: (interdisciplinary essay)		Interdisciplinary framework:
Research question:	What is the effect of temperature on the concentration of β -carotene extracted when orange peel powder is heated with ethanol under reflux for a retention time of 10 minutes?	
Assessment details		
Criterion	Mark awarded	Commentary
A: Framework for the essay [Maximum possible mark: 6]	5	The research question is relevant to the topic of investigation, clear and almost focused in relation to the scope of the essay—it could mention how concentration of β -carotene is to be determined. (5 marks) Research methods that are suitable for the research question are explained and applied effectively, with minor flaws. (6 marks) Structural conventions used in the essay support communication of the research with some flaws—there is unnecessary use of tables when describing variables and risk assessment ideally belongs in the appendix. None of this affects the reading and understanding of the work. (5 marks)
B: Knowledge and understanding [Maximum possible mark: 6]	6	Comprehensive, relevant research material is used to establish knowledge of the subject matter. (6 marks) Relevant terminology is used accurately and consistently to demonstrate understanding of the subject matter and techniques used in the research. (6 marks) Relevant concepts are explained and used to demonstrate understanding of the subject matter, though a better explanation for the degradation of β -carotene would be welcome. (5 marks)
C: Analysis and line of argument [Maximum possible mark: 6]	6	The analysis in the essay is effective and produces relevant findings. (6 marks) There is a consistent line of argument, which links the research question, findings and conclusions. (5 marks)
D: Discussion and evaluation [Maximum possible mark: 8]	6	Discussion is supported by evidence, and there are clear comments explaining any difference from expected values using theory. (7 marks) Evaluation is good, though to some extent based on procedural issues. (5 marks)

Criterion	Mark awarded	Commentary
E: Reflection [Maximum possible mark: 4]	3	Reflection on the extended essay learning experience is partially evaluative and includes specific examples. (3 marks) Reflection sometimes shows evidence of growth and transfer of learning. (2–3 marks)
Total marks awarded	26/30	A good piece of work that comprises both theoretical and experimental research.