

Reading and analysing scientific texts

Step 1: Understanding the research

Use this guide to help you work your way through reading a scientific text.

Reference details	Author: Title: Year: Other bibliographic details:	
Background	Why did they do this research?	
Research Aims	What were their questions?	
Research Method	How did they investigate the questions? (e.g. experiments, surveys)	
Data Collection	How did they collect their data? (e.g. soil samples, species counts, mapping)	
Data Analysis	What did they do with their data? How did they analyse the data?	
Results/Findings	What did they <i>expect</i> to find and what <i>did</i> they find?	
Discussion	How does this research contribute to the field?	
Conclusion	What recommendations are provided for future research?	

Step 2: Critical analysis of the research

Use these questions to further engage in your analysis of the text. Your notes here may also be useful for your written assignments.

Background	What other research have you read on this topic? What previous research did authors refer to and what do we know/not know (i.e. gaps?)
Research Aims	Are these questions answered in the paper?
Research Method	What other ways could the research questions be answered? How does their methodology relate to other methods (i.e. is it similar or does it use a new method?)
Data Collection	Do they talk about limitations of their data? In what ways could their data collection be improved? (e.g. larger samples, wider surveys)
Data Analysis	What did they do to eliminate contamination/bias from the samples? How did they make decisions? What statistical analysis did they use? Why?
Results/ Findings	Are the results clearly labelled and explained? Have they clearly explained the connection between the results and their findings? Can you think of other explanations for the results?
Discussion	Compare your knowledge of this topic before and after reading the paper. Do you think you are better informed about this topic? Why? Why not? Have the authors adequately addressed any limitations of study?
Conclusions	Can you think of other recommendations for future research?
Relevance to your unit	Is there a clear link between the unit description and learning outcomes (in your unit guide) and this reading?
Relevance to your current assessment	Think about the assessment task and consider how you will use information from this reading to support your response.