

Paper Format- what goes where?

Abstract-

A little of everything, the 250 word trash can
Define problem- why is it important
Purpose of the experiment
How you did it
What you found
What it means

Give readers a reason to read the paper

Introduction-

Describe the problem and why anyone should care
Review of relevant background material
Structure background material so what you propose is an obvious next step
Last paragraph- say how you will address the hole in the literature
State your hypothesis- should derive clearly from lit review

Materials and Methods-

What you used
How you did the experiment- so others can replicate and evaluate the data
Instrument identity, procedure, instrument or experiment parameters
Any necessary equations

Results-

Tables and graphs with captions and titles
What your data says with minimal interpretation
Gloss over interpretation- only have it if it is the critical link between two analysis
What the figures mean
Your observations of the data

Discussion-

Summarize findings quickly
Then start pulling explanations or interpretations out of the data/ figs/ tables
Explain why findings either match or don't the hypothesis
Explain findings in the context of the background material presented in introduction

Conclusion-

Briefly state what you did and why it was important
Drives home the main findings
Show relevance to field or public
Second paragraph, suggest future directions or experiments.