How to write a Scientific Paper

The scientific format has a rigid structure. The article text follows the IMRaD format (Introduction, Methods, Results and Discussion).

- **Methods**
  - Title, Abstract and Keywords

- **Introduction**
  - **Introduction:**
    - Why was the study undertaken? What was the purpose of the research?

- **Tip**
  - Finalize the Results and Discussion before writing the Introduction. It could sound contradictory, but think about: if the Discussion is scarce and inconsistent, how can you solidly demonstrate the scientific significance of your work in the Introduction?

- **Methods**
  - **Methods:**
    - When, where, and how was the study done? What materials were used or who was included in the study groups (specimens, etc.)?

- **Results**
  - **Results:**
    - What did the study find? Was the tested hypothesis true?

- **Discussion**
  - **Discussion**
    - What might the answer imply and why does it matter? What are the perspectives for future research?

- **Discussion**
  - The main text is followed by the Conclusion, Acknowledgements, References and Supporting Materials (optional).
Organizing your manuscript

When you organize your manuscript, the first thing to consider is that the order of sections will be very different than the order of items on your checklist.

1. Write the Methods – clearly explain how you carried out your study

2. Write the Results - decide a logical order that tells a well-defined story, easy to read and understand. Remember: you are presenting your results, do not refer to others’ citing References in this section.

3. Write the Discussion - here you must respond the question. “What the results mean?”

4. Write an eventual Conclusion - provide a clear and strong scientific rationale for your research. If appropriate, you can here suggest future experiments / researches.

5. Write a compelling Introduction - convince readers (and Reviewers, and Editors) that your research is useful, and introduce some previous publications on which you based your work.
Preparation of Figures and Tables

- Remember that the visual tools of your paper are the first visible and the most efficient way to present your results.

- No illustrations should duplicate the information described elsewhere in the manuscript and remember that the legends have to be self-explanatory.

- Never include long boring tables or unappealing figures (e.g., chemical compositions of suspension systems or lists of species and abundances). You can include them as supplementary material.

- Unless unavoidable, instead of modifying/adapting previously published materials, consider that originality and creativeness in preparing tables and figures is regarded as an added value.

- Be conscious that presentation consistency is key; before submitting, check once more.

Remember to consult the publisher’s Guide for Authors, also for the References list and citations format, and for the requested set-up, resolution, etc. for illustrations.