How to

Read a Scientific Paper

Practice Guide for 6-12 Grades

1 Select a Relevant Paper

Choose a scientific paper or article that aligns with a science topic or your personal interests. Verify the publication date to ensure the information is current and relevant.

2 Preview the Paper

Start by reading the abstract to get a brief overview of the paper's main objectives, findings, and the problem it addresses. Look at any figures, tables, or diagrams provided in the paper to visualize key concepts.

3 Identify Key Vocabulary

While reading, use a highlighter or underline to mark scientific terms that you may not understand or that seem important to understanding the research. Define unfamiliar terms, creating a glossary as you go.

4 Read Actively

Divide the paper into smaller sections, such as paragraphs or subsections, and read them one at a time. Create concise notes on each section summarizing the main ideas, key findings, and any questions or insights that arise. Write brief comments in the margins or use sticky notes to jot down thoughts or questions.

5 Analyze Data and Evidence

Pay close attention to any data presented in the paper, such as graphs, tables, or charts. Interpret the data to understand the results. Evaluate the evidence provided by the authors to support their claims and conclusions.

6 Question and Reflect

Generate questions about the paper's content as you read. What aspects are unclear or require further investigation? Consider how scientific practices are applied in the paper. Analyze how scientists collected data, constructed models, or developed arguments.

7 Discuss with Peers

Engage in group discussions with classmates to share insights, perspectives, and questions. Seek guidance from your teacher, peers, or other sources if you encounter challenging concepts or need further explanation.

8 Connect

Consider how the paper's content relates to real-world issues and applications. Discuss the potential impact of the paper's findings on society or the field of study, making connections beyond the paper itself.

Have Fun! Remember, reading about science should be fun!
Enjoy learning new things and exploring the world of science.

Biotechnology Outreach