

Designing Your Own Study Graphic Organizer

Name:

My Scientist:

Video 1: Developing a Testable Question

What is the scientist curious about?

What is the scientist's research question?

What are you interested in or curious about?

What experiences have you had with that topic or problem?

Given your topic or problem, what else do you need to learn about or research?

How to Develop a Testable Question:

- Identify your curiosity.
- Use your experience to identify problems.
- Ask specific questions about those problems.
- Read and gather information about your questions.

My Research Question:

Video 2: Planning to Test Your Question

What variables does the scientist want to measure?

What steps does the scientist take to set up the study?

What variables impact your research question? Which variables will you measure?

How will you measure the variable(s)? (What tools will you use? Where will you conduct your study?)

What data will you record?

Planning to Test Your Question:

- Read about your topic from trustworthy sources.
- Learn how others study your topic.
- Identify and learn more about important variables.
- Develop a plan for collecting and analyzing your data.

Video 3: Analyzing and Understanding Your Data

What observations did the scientist make?

How did the scientist display their data?

How will you record your observations during the study?

Who is your audience? In other words, who will you be sharing your study results with?

How can you present your data so that it will be easy for your audience to understand?

How to Analyze and Understand Your Data

- Use established methods and tools.
- Capture data as images and other formats.
- Create visuals and figures of your data.
- Look for patterns or differences in your data.

Video 4: Explaining It All

What did the scientist learn from the study?

What are the next steps for the scientist now that the study is complete?

How might your results be important?

What might you or others do as a result of what you learn?

What new questions do you think you might have about your topic after completing this study?

Explaining It All:

- Interpret your data objectively.
- Compare your results to other studies.
- Consider the limitations of your study.
- Use pictures and visuals to help explain your results.

What is the best or most helpful advice the scientist shared?