

Science Project Checklist

A science project checklist that guides students through the scientific method from question to display board.

Choose your question

- Pick a topic that genuinely interests you.
- Turn it into a specific, testable question.
- Make sure you can measure the results.
Measurable means you can record numbers, times or counts.
- Check that you have the time and materials to test it.
- Get the question approved by your teacher if required.

Research and hypothesis

- Read background information from books and reliable websites.
- Identify your independent, dependent and controlled variables.
- Write a hypothesis as an if-then prediction.
- Note why you expect that outcome based on your research.
- Keep a record of your sources for the report.

Materials and method

- List every material and tool you will need.
- Gather supplies before you begin the experiment.
- Write a numbered, step-by-step procedure anyone could follow.
- Plan to repeat the experiment several times for reliable data.
More trials reduce the effect of random error.
- Note any safety steps or adult supervision needed.

Run the experiment and record data

- Follow your procedure exactly the same way each trial.
- Change only the independent variable; keep the rest constant.
- Measure carefully and record results in a data table.
- Take photos at key stages for your display board.
- Write the date and conditions for each trial.

Analyze and conclude

- Calculate averages or totals from your trials.
- Turn your data into a clear graph or chart.
- Compare the results with your hypothesis.
- Write a conclusion stating whether the hypothesis was supported.
- Note possible errors and ideas for future experiments.

Build the display board

- Add a clear title and your name to the board.
- Display the question, hypothesis, materials and procedure.
- Show data tables, graphs and photos.
- Include the results and conclusion in plain language.

- Arrange everything neatly and check spelling.
- Prepare a short spoken summary to explain your project.