

Conduct an Experiment



Design and conduct an experiment that tests a mathematical/ scientific concept from your research.


Definition: A test under controlled conditions that is conducted to demonstrate a known truth, examine the validity of a hypothesis, or determine the efficacy or something previously untried.

Words from the Trade:

- Analyze
- Control group
- Data
- Design
- Hypothesis
- Variable
- Prediction
- Scientific Method
- Validity
- Dependent Variable
- Independent Variable

Trade Secrets:

- Put your results in a diagram, chart, graph, or table.
- Make certain you follow all steps of the scientific method.
- Use safety procedures.
- Choose an experiment that interests you.
- Identify your dependent and independent variables.
- Remember to state your hypothesis!






Project "Look-4s"

An excellent project has all of these elements:

- Hypothesis is clearly stated
- Experiment is well documented with lab notes
- Lab notes include illustrations of steps and results
- Reasonable conclusions are drawn from the research

Experiment

Performance Characteristic	Achieving 3 	Developing 2 	Not Yet 1 
Illustration of science experiment	I drew all of the parts of what I saw	I drew some of the parts of what I saw	I did not draw what I saw
Description of science experiment	I wrote down everything that I saw happen	I wrote down some of the things that I saw happen	I did not write down what happen
Description of science process	I can tell what happened at the beginning, middle, and end	I can tell what happened but I get things a little mixed up	I could not tell what happened
Understanding of science	I can tell why all the things happened the way they did in our experiment	I can tell why all the things happened the way they did in our experiment	I don't really know why things worked the way they did
Working like a scientist	I knew what to do and did it until it was done	I needed a little bit of help from the teacher	I kept getting mixed up and needed a lot of help from the teacher