

This game, [Mastermind](#), is a model of the "Scientific Method".

Each game is an "experiment".

The "problem" is: How do observation and inference affect solution of a hidden code?

The colors and positions of the pegs are "variables".

A guess is a "hypothesis", an "inference", for the array of the variables that may be the solution of the hidden code.

Each input of a guess of the code is a "trial" of the experiment.

The black and white dots are the "data" set "results" of each trial, useful observations to infer the next hypothesis and trial.

This experiment will take trials to find the hidden code (a "conclusion" reached by observation and inference).

### **Mastermind Lab Report**

Problem: What is the effect of (A) team or individual work on (B) the number of trials to find the hidden code?

Procedure: Describe how the game is played and the experimental setup.

Hypothesis: Answer the problem question.

Data: Table Example

Experiment	Trials
1	8
2	5
3	N (no solution)

Observations: Did you notice any differences in number of trials required to solve the problem?

Conclusion: Our hypothesis was (supported, not justified or inconclusive) because.....What part does serendipity play in experiments? (Use the back if necessary.)

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