

What is the “scientific method”?

The scientific method is the best way yet discovered for winnowing the truth from lies and delusion. The simple version looks something like this:

- 1. Observe some aspect of the universe.
- 2. Invent a tentative description, called a *hypothesis*, that is consistent with what you have observed.
- 3. Use the hypothesis to make predictions.
- 4. Test those predictions by experiments or further observations and modify the hypothesis in the light of your results.
- 5. Repeat steps 3 and 4 until there are no discrepancies between theory and experiment and/or observation.

When consistency is obtained the hypothesis becomes a *theory* and provides a coherent set of propositions which explain a class of phenomena. A theory is then a framework within which observations are explained and predictions are made.

Figure 1.1: Flow diagram describing the scientific method.

