

The Principle of Science

The principle of science, the definition, almost, is the following: *the test of all knowledge is experiment. Experiment is the sole judge of scientific "truth".* But what is the source of knowledge? Where do the laws that are to be tested come from? Experiment, itself, helps to produce these laws, in the sense that it gives us hints.

But also needed is *imagination* to create from these hints *the great generalizations*—to guess at the wonderful, simple, but very strange patterns beneath them all, and then to experiment to check again whether we have made the right guess.

From Feynman Lectures on Physics