

# ☰ Scientific method

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Article [Talk](#)

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*For broader coverage of this topic, see [Research and Epistemology](#). For other uses, see [Scientific method \(disambiguation\)](#).*

The **scientific method** is an [empirical](#) method for acquiring [knowledge](#) through careful [observation](#), rigorous [skepticism](#), [hypothesis testing](#), and experimental validation.

Developed from ancient and medieval practices, it acknowledges that [cognitive assumptions](#) can distort the interpretation of the [observation](#). The scientific method has characterized [science](#) since at least the 17th century. Scientific inquiry includes creating a

tastable [hypothesis](#) through [inductive reasoning](#), testing it through experiments and

statistical analysis, and adjusting or discarding the hypothesis based on the results.<sup>[1][2][3]</sup>

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