

Many words commonly used in conversational or academic English have different meanings in the context of science writing. It's important to use these words correctly to avoid confusing or misleading the reader. Some of these problematic words, and their scientific usages, are given below.

Word or Phrase	Commonly found in	Definition and guidelines
Hypothesis	Introduction or Discussion	A proposed explanation for an observed phenomenon. A hypothesis can be experimentally tested.
Theory	Introduction or Discussion	A hypothesis that has been thoroughly tested and is supported by so much experimental evidence it is generally accepted as true.
Model	Introduction or Discussion	A physical, mathematical or conceptual framework that shares key characteristics with a natural object or phenomenon. Used to explore, explain, or predict the real thing.
Accurate	Results	Refers to how closely an experimental measurement reflects the true value.
Precise	Results	Indicates a high degree of similarity between repeated measurements.
Significant	Results	Commonly used as a synonym for "important." In scientific writing, implies "statistically significant," meaning a high probability that an observed effect is real (as opposed to merely chance). Should always be accompanied by a p-value (e.g. $p = 0.05$ ).
Correlation	Results	The degree of similarity in the way two variables change. A statistical calculation expressed as an R value. Two variables can be correlated in the absence of a causal relationship.
Cause	Results	Indicates that one variable changes <i>as a result of</i> change in the other variable.
The data support/suggest	Discussion	Implies that the evidence is consistent with the explanation presented, but other possibilities exist that could not be ruled out.
The data indicate	Discussion	Implies a high level of certainty that the proposed explanation is most likely to be the correct one.
Proof	Discussion	Absolute certainty that a conclusion is correct. Used in mathematics and logic, but not generally applicable in science writing.