

Science Vocabulary

General science terms

#	Word	Part of Speech	Meaning	Example
1	hypothesis	noun	a proposed explanation to be tested	<i>The hypothesis predicted that plants grow faster under blue light.</i>
2	theory	noun	a well-tested explanation supported by evidence	<i>The theory of evolution explains how species change over time.</i>
3	experiment	noun	a controlled test to check a hypothesis	<i>The experiment showed that temperature affects the rate of reaction.</i>
4	variable	noun	a factor that can change in an experiment	<i>The independent variable was the amount of fertilizer used.</i>
5	data	noun	facts and numbers collected during research	<i>The data was analyzed using statistical software.</i>
6	evidence	noun	information that supports or contradicts a claim	<i>There is strong evidence that exercise reduces the risk of heart disease.</i>
7	observation	noun	watching and recording something carefully	<i>Through careful observation, Darwin noticed differences between finch beaks.</i>
8	conclusion	noun	the final finding of a study or experiment	<i>The conclusion was that the new drug is effective against the virus.</i>
9	analysis	noun	the detailed study of something to understand it	<i>A chemical analysis revealed high levels of lead in the water.</i>
10	phenomenon	noun	an observable event, especially one that is unusual	<i>Northern lights are a natural phenomenon caused by solar particles.</i>
11	species	noun	a group of organisms that can breed together	<i>Over 8 million species live on Earth, but most have not been identified.</i>
12	sample	noun	a small part of something used for testing	<i>The scientist collected a water sample from the river.</i>
13	research	noun/verb	systematic study to discover new knowledge	<i>Recent research suggests that gut bacteria affect mental health.</i>
14	significant	adjective	large enough to have an important effect	<i>The results showed a significant difference between the two groups.</i>
15	accuracy	noun	how close a measurement is to the true value	<i>The accuracy of the thermometer was tested before the experiment.</i>

The scientific method

These words describe how scientists work – from asking questions to publishing results.

#	Word	Part of Speech	Meaning	Example
16	method	noun	a systematic way of doing something	<i>The scientific method involves observation, hypothesis, testing, and conclusion.</i>
17	procedure	noun	a series of steps followed in order	<i>Follow the procedure exactly to get reliable results.</i>
18	control group	noun	the group in an experiment that is not changed	<i>The control group received a placebo instead of the actual drug.</i>
19	independent variable	noun	the factor the scientist changes on purpose	<i>The independent variable was the temperature of the water.</i>
20	dependent variable	noun	the factor that is measured in an experiment	<i>The dependent variable was the growth rate of the bacteria.</i>
21	trial	noun	one run of an experiment	<i>After 50 trials, the results were consistent.</i>
22	replicate	verb	to repeat an experiment for reliability	<i>Other labs could not replicate the original findings.</i>
23	predict	verb	to state what you think will happen	<i>The model predicts a 2°C rise in global temperatures by 2050.</i>
24	classify	verb	to arrange into categories	<i>Biologists classify living organisms into kingdoms, phyla, and classes.</i>
25	measure	verb	to find the size, amount, or degree of something	<i>We measured the pH level of each solution.</i>
26	investigate	verb	to examine or study something carefully	<i>Scientists are investigating the link between diet and cancer.</i>
27	conclude	verb	to reach a decision based on evidence	<i>The team concluded that the treatment was not effective.</i>
28	peer review	noun	evaluation of research by other scientists	<i>The paper was accepted after peer review by three experts.</i>
29	bias	noun	a tendency that prevents fair judgment	<i>Confirmation bias leads researchers to favor data that supports their hypothesis.</i>
30	correlation	noun	a relationship between two things	<i>There is a correlation between sleep quality and academic performance.</i>