

1.6: Summary

1.6.1: Key Takeaways

Science attempts to *describe* the physical world (it answers the question “How?”, not “Why?”).

The Scientific Method provides a prescription for arriving at theories that describe the physical world and that can be experimentally verified. The Scientific Method is necessarily an iterative process where theories are continuously updated as new experimental data are acquired. An experiment can only disprove a theory, not confirm it in any general sense.

Physics covers a wide scale of phenomena ranging from the Universe down to subatomic particles. Classical physics encompasses the theories developed before 1905, when Einstein introduced the need for Quantum Mechanics and the Theorie(s) of Relativity. One of the main goals of physics is to arrive at a single theory that describes all of our natural world. Currently, physicists require three theories to describe the natural world.

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