

Scientific Models, Theories and Laws

Before a new car designer makes an operating vehicle, or an architect builds a new home they will usually make a model first to see how everything looks.

Sometimes an idea or process is difficult to see in action. It might be too small like an atom, too big like a galaxy, too fast like a ray of light or too slow like the erosion of a mountain.

A symbolic representation of these systems, ideas or structures is called a **Scientific Model** !

Scientific Theory: a logical explanation of why things work the way they do, based on many observations that are supported by experimental results.

Scientific Law: A rule of nature that sums up related observations and experimental results to describe a pattern in nature.

-Laws can be used to predict what will happen in a given situation, but they don't explain why!

-Theories can serve as explanations of laws!

-Both laws and theories can be changed or discarded if new observations show them to be incorrect!