Scientific Concepts
Scientific Concept

- A scientific concept is an idea or model explaining some natural phenomenon.
- For example, our understanding of objects falling toward the Earth is explained in our concept of gravity.
- There are different forms of scientific concepts.
- They differ primarily in the amount of supporting evidence and acceptance by the scientific community.
Hypothesis

• A tentative explanation in which there is very little evidence available to support the concept.

• A hypothesis may or may not have wide acceptance in the scientific community.
Generalizations and Theories

• A concept that has supporting evidence and is becoming increasingly accepted by the scientific community as truth.

• Example: Theory of Dinosaur Extinction
Laws

- A concept that is widely accepted by the scientific community.
- There is a large amount of supporting evidence in favor of the law.
- Laws describe concepts that invariably test true under the same conditions.
- Example: Law of Gravity
The Continuum

- All concepts begin as a hypothesis.
- As more evidence is collected to support the hypothesis, more of the scientific community comes to accept the concept and it becomes a theory.
- Only those concepts that are proven true over and over again are accepted as scientific laws.
- Some concepts are never accepted as laws because the scientific community may continue to debate the concept or it might not always prove true.
The Continuum (Continued)

Hypothesis  Theory  Law

Increasing Supporting Evidence

Increasing Acceptance
Questions?