

Chapter 2 The Science of Biology

Concept 2.1

Discovery science emphasizes inquiry and observation.

*“Chance favors the prepared mind”
Louis Pasteur*

Biology - is the scientific study of life.

Science - derived from the Latin verb meaning
“to know”

- at the heart of science is **inquiry**;
people asking questions about what they observe in nature and actively seeking answers.

Biology blends two main forms of scientific exploration: Discover Science and Hypothesis-based Science.

A. **Discovery science** is about describing nature through careful observation and data collection.

- **Observations** - use of the senses to gather information about structures or process.

- **Data** - recorded observations.

a.) **Quantitative** - measurements

b.) **Qualitative** - descriptions

Inferences - logical conclusion based on observations: help to refine questions.

Generalizations - when many specific observations are put together to reach a general conclusion.