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CHAPTER 1 – Biology: Exploring Life – Objectives

Introduction

Describe the feeding habits of pelicans. Explain how recent human activity has impacted pelican populations.

The Scope of Biology

- 1.1 Define the levels of biological organization from molecules to the biosphere, noting the relationship each level has to the others.
- 1.2 Explain how the web of relationships gives an ecosystem its structure.
- 1.2 Compare the flow of chemical nutrients and the flow of energy in an ecosystem.
- 1.3 Explain how cells are the structural and functional units of life. Compare prokaryotic and eukaryotic cells.
- 1.3 Define emergent properties.

Evolution, Unity, and Diversity

- 1.4 Explain how DNA encodes a cell's information.
- 1.4 Describe seven properties that are common to all life.
- 1.5 Compare the three domains of life. Distinguish between the three multicellular kingdoms within Eukarya.
- 1.5 Explain why the old five-kingdom system of classification has been revised. Describe the unresolved problems of this new classification.
- 1.6 Describe the process and products of natural selection. Explain why individuals cannot evolve.