Chp One Study Guide: Objective Questions

Chp 1.

1. What characteristics do you share w/ the diversity of life on the planet?

Levels of organization, ability to acquire energy, homeostasis, response to stimuli, reproduction, and evolution over time

2. How does adaption and the process of evolution relate to living organisms?

Animals will adapt to better fit in environment; explains how earth has diversity and how organisms rose from ancestors.

3. What are some of the challenges facing science & society?

Climate change; decreased biodiversity; habitat loss; emerging and reemerging diseases.

1.1

4. levels of biological organization:

Atom → molecule → cell → tissue → organ → organsystem → organism → species → population → community → ecosystem → biosphere

5. homeostasis: maintaining of internal environment.

metabolism: chemical reactions w/in the cell

adaption: modifications that makesd species suited to their way of life.

6. Chemical cycling: chemicals move from one population to another through food chain

Energy flow: flows from the sun to producers the on as they are fed on.

Chapter One ct.

1.2

1. Evolution: Process in which populations change and adapt to their environments.

2. Natural selection: mechanism by which evolutionary change occurs.

3. Characteristics of domains:
domain bacteria; prokaryotic cells
domain Archaea; prokaryotic cells; extreme conditions
domain Eukarya; eukaryotic cells; protista, fungi, Plants, Animals

1.4 ⟹ 4. science v. technology

science	technology
systematic way of acquiring knowledge about the Natural world.	Application of scientific knowledge to the interests of humans.

- All living organisms from bacteria to humans share the same basic characteristics of life.
- process of evolution explains the diversity of living organisms on Earth today.
- Scientific method is the process by which scientist study the Natural world and develop explanations for their observations.
- Many challenges facing the scientific comunity.