Chapter 4 Section 3 Notes

The Diversity of Living Things
Most scientists classify organisms into four kingdoms and three domains

Domain Archaea	Domain Bacteria	Domain Eukarya
		Kingdom Fungi
		Kingdom Protista
		Kingdom Plantae
		Kingdom Animalia

Domain Archaea – live in extreme environments

Domain Bacteria – unicellular organisms that lack nuclei but have cell walls
Bacteria can convert nitrogen in the air into a form plants can use
Bacteria also break down dead organisms

Domain Eukarya

Kingdom Fungi (fungus) – organisms whose cells have nuclei and cell walls, but no chlorophyll
Fungi break down dead organisms

Kingdom Protista (protists) – unicellular and multicellular organisms that may be plantlike (kelp), animal-like (amoebas), or funguslike
Ex) algae are protists

Seaweed, phytoplankton, and giant kelp are all types of algae that use energy from the sun to make food

Phytoplankton are especially important because they are the initial source of food in most ocean and freshwater ecosystems.

Kingdom Plantae (plants) – multicellular organisms that have cell walls and make their own food
Nonvascular plants – (ex. mosses)
Vascular plants

- **Gymnosperms**

- **Angiosperms** – most land animals depend on angiosperms for food.
  Many angiosperms depend on animals to carry pollen & disperse seeds

Kingdom Animalia (animals) – multicellular organisms that must ingest food and whose cells have no cell wall

Invertebrates – no backbone (corals, various worms, mollusks, squid, and insects)
Insects – generally small, can survive on little food and can easily hide from enemies Ex) ants

Vertebrates – have backbone (fish, amphibians, reptiles, birds, mammals)