

## Hogs & Chickens

Statistics about concentrated animal feeding operations raise questions about nutrients in biogeochemical cycles, the effects of livestock and people on aquatic systems.

Readings about **Nutrient Cycles and Energy Flow** can be found in **Chapter 37 & 38**.

Readings about **Biodiversity and Bioaccumulation** can be found in **Chapter 40**.

Review Readings about **Cellular Respiration** can be found in **Chapter 6**.

Review Readings about **Photosynthesis** can be found in **Chapter 5**.

Review Readings about **Population Growth** can be found in **Chapter 37**.

The role of decomposers

- Not sure what a **decomposer** is? See p. 6 and 774.
- Need to know about their role in **water treatment**, see p. 356
  - See: What happens when you flush p. 774/779.

Eutrophication and Algal Blooms

- Need a quick summary of the **relationship between algae and eutrophication**, see the burning question on page 365
- Need an explanation of the relationship between **N & P and eutrophication**? Read pp. 782-783 and review figure 38.3
- Need a more detailed comparison of the role of **Organic** and **Inorganic** aquatic pollution and algal blooms? Read p. 813-814
- Not sure **from where plants get their C,H,O,N,P**? See pp. 485-486
- Need to learn more about **commercial fertilizer** and what it contains? See p. 486
- Not sure what is meant by **nitrogen-fixing** bacteria? See p. 486
- Curious of what **elements** plants are made? See p. 484.
- Need more of an explanation of **environmental impact** (ecological footprint)? Read pp. 761-762

Energy Flow in Ecosystem

- Not sure what **primary producers, consumers, autotroph, or heterotrophs** are? Read p. 774
- Not sure what **ecosystems** or **food webs** are? Read pp. 774-775
- Not sure **how energy is lost at each trophic level** or what the **10% rule** is? Read p. 775-776.
  - You might also want to review the **Laws of Thermodynamics** on p. 72
- Not sure to what the term **net primary productivity** refers? See p. 775
- Not sure how **biomagnification** (bioaccumulation) works? Read p. 777.

### Biogeochemical Cycles

- Don't know the difference between **biotic and abiotic**? See p. 768
- Need a description of what **biogeochemical cycles** are? Read p. 778
  - The **water** cycle is on p. 778-779
  - The **carbon** cycle on pp. 780-781
  - The **nitrogen** cycle on pp. 781-782
  - The **phosphorus** cycle on p. 782

### Biodiversity

- Need some basic information about **biodiversity**? See p. 810