37.18 - 37.21 Notes

Background Knowledge: Define abiotic factors and biotic factors.

- Biogeochemical Cycles: _____

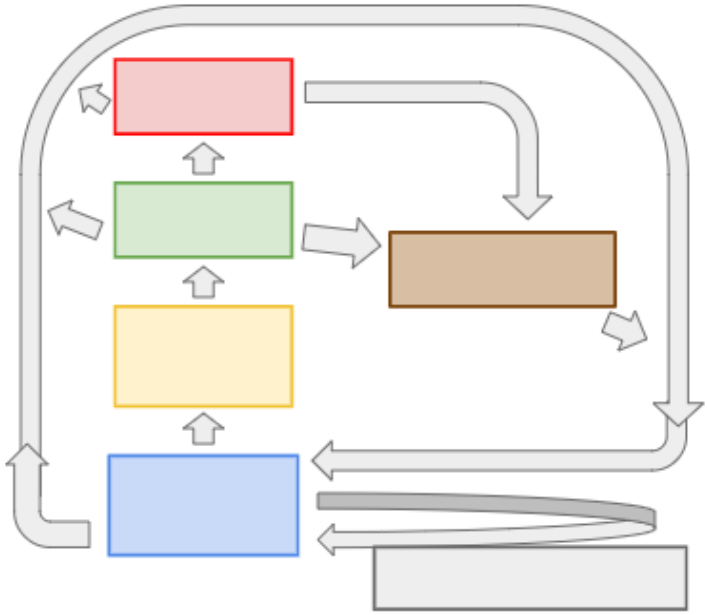
  _____

In Biogeochemical Cycles:

1. _____
2. _____
3. _____
4. _____

Background Knowledge: What biogeochemical cycles do you already know about?

Label the steps of the generic **biogeochemical cycle**.



Background Knowledge: What are the other components of proteins and nucleic acids?

- Nitrogen moves from _____ → _____ → _____ → _____ → _____ → _____

Nitrogen-fixing bacteria:

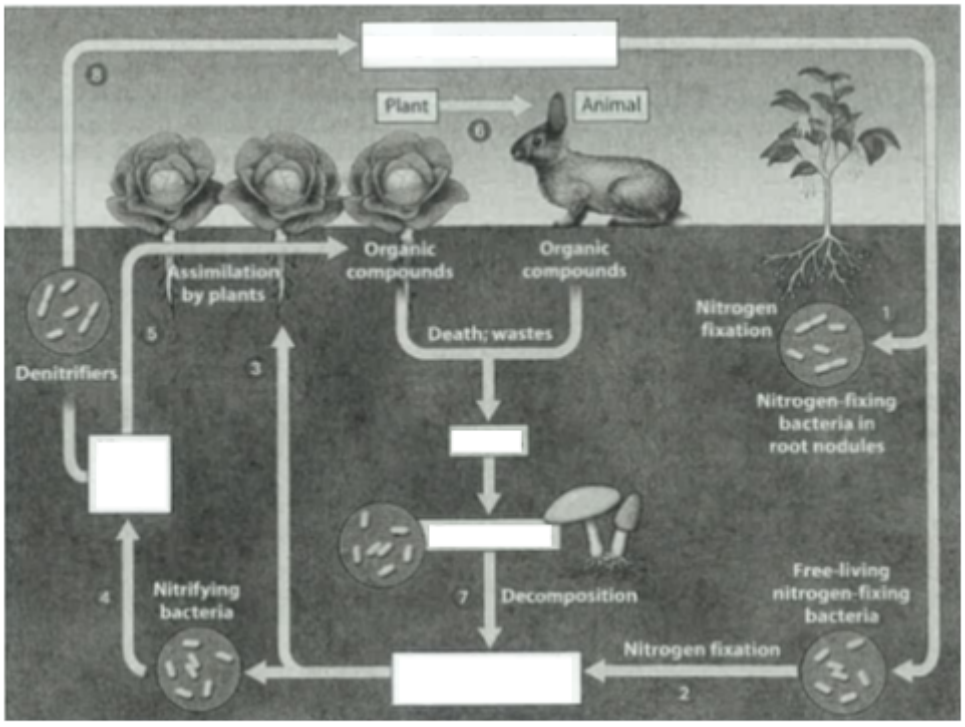
- Make nitrogen _____.
- Live in _____ (free-living) and _____ (symbiotic).

List and describe the **Nitrogen Cycle** steps:

1. _____: _____ _____.
2. _____: _____ _____.
3. _____: _____ _____.

- Humans are disrupting the cycle by _____,
  causing _____, _____, and _____.
  Excess nitrogen is also added by _____ and _____.

Label the steps of the **Nitrogen Cycle**.



Background Knowledge: What carbon compound (not named on the slide) is essential to the processes of photosynthesis and cellular respiration? What is its chemical formula? What kind of macromolecule is it?

- Carbon compounds can be found in:
    - _____
    - _____
    - _____
    - _____

Background Knowledge: Name the two main stages of photosynthesis. Name the three main stages of cellular respiration.

1.

2.

1.

2.

3.

Draw a diagram of the **Carbon Cycle**.

Steps of the **Phosphorus Cycle**:

1. Rocks break down, _____.
2. Plants absorb _____.
3. Consumers _____.
4. Phosphates are returned to the soil by _____ _____.
5. Some of the phosphate is brought to the sea _____.
6. Over millions of years, _____. _____.

How do farmers add phosphate to soil?