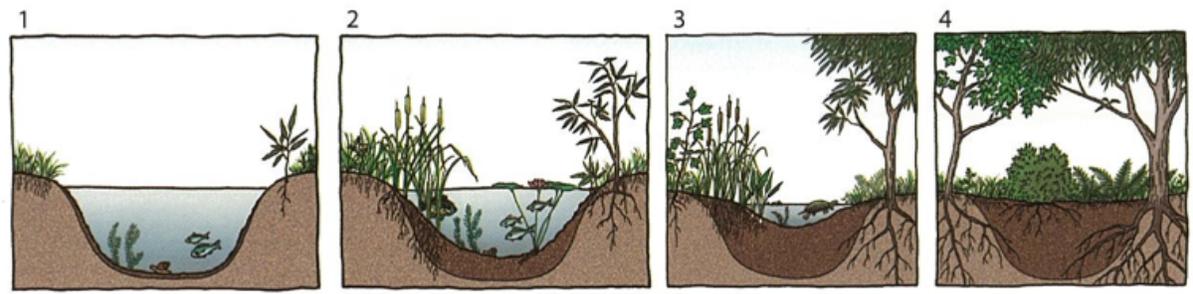


Purpose: To explore pond succession

Guiding Question: How do ponds change over time?

Below is a picture of the correct order of succession for a pond. In the space below, write a short summary of how ponds change over time. Ideas to consider:

- a. How does new life appear in the pond?
- b. How does the depth of a pond change over time? What causes this to happen?



► SUCCESSION OF A POND

In stage one, a small depression fills with water. In stage two, the diversity of life increases. They are found as seeds, spores, and in cysts carried by birds, wind, and found on straw and leaves. Cysts are protective containers for protists. In stage three, the remains of organisms collect at the bottom of the pond. This material is called detritus and serves as a nutrient source for other organisms. In stage four, the pond is essentially gone due to the amount of detritus. This is now fertile soil for plants to grow in.

Reflecting Questions.

1. How do ponds initially form?

Ponds form from small depressions that fill with water.

2. What are two ways that microorganisms get into ponds?

New organisms get into ponds in two ways. First, animals and wind can carry seeds and spores into the pond which allows new plants to grow.

Second, wind and rain can carry decaying leaves and straw which have cysts on them. Cysts contain dormant protists which come back to life when put into water.

3. What is detritus and how is it helpful to other organisms?

Detritus is a mixture of dead and decomposing plant and animal material.

Detritus is helpful because it provides nourishment for decomposers and it becomes fertile soil for plants in the future.

4. What do you think would happen to the pond community if the microorganisms were to disappear? Use the illustration below to help you.

I think the food web would collapse. Without the microorganisms larger organisms wouldn't survive. Some microorganisms are a food source for larger organisms. Some microorganisms are decomposers. Without decomposers, matter couldn't be recycled and reused by other organisms in the pond.

