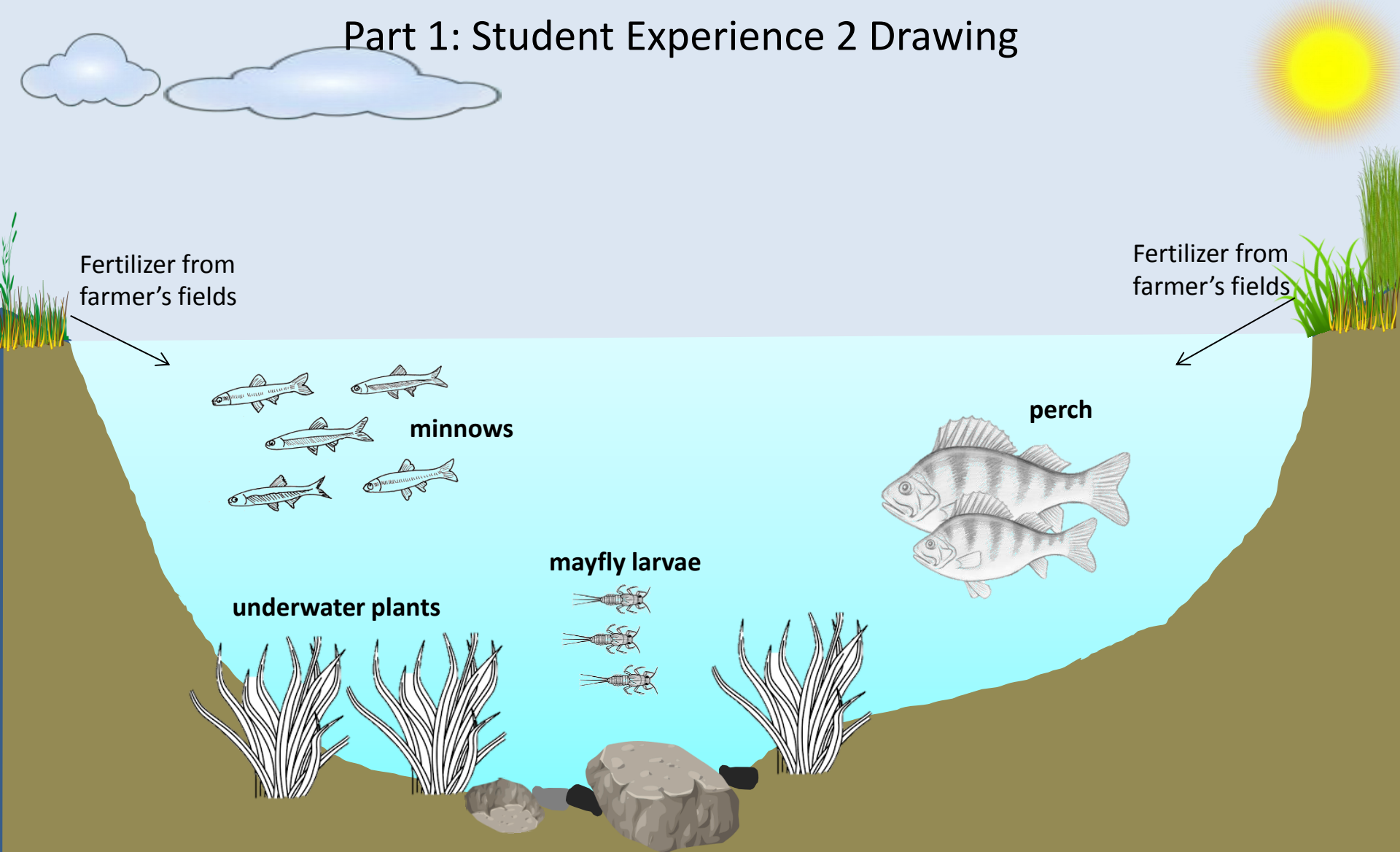
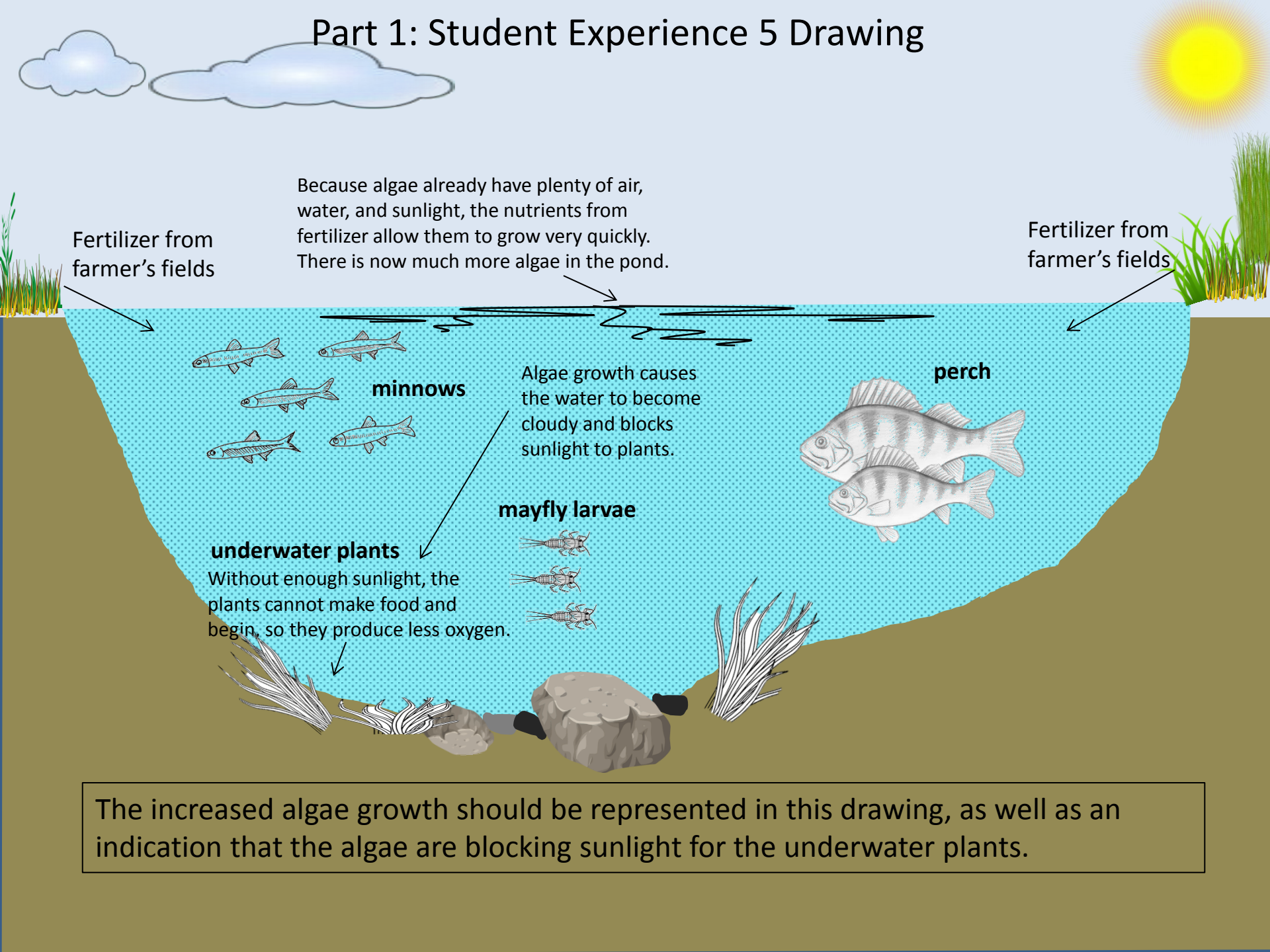


Part 1: Student Experience 2 Drawing



In this first drawing, students should include examples of the populations of organisms found in the pond. It may be helpful to keep the list of organisms created in Student Experience 1 on display for students to reference.

Part 1: Student Experience 5 Drawing



Because algae already have plenty of air, water, and sunlight, the nutrients from fertilizer allow them to grow very quickly. There is now much more algae in the pond.

Fertilizer from farmer's fields

Fertilizer from farmer's fields

minnows

Algae growth causes the water to become cloudy and blocks sunlight to plants.

perch

mayfly larvae

underwater plants
Without enough sunlight, the plants cannot make food and begin, so they produce less oxygen.

The increased algae growth should be represented in this drawing, as well as an indication that the algae are blocking sunlight for the underwater plants.

Part 2: Student Experience 5 Drawing

Decomposers (in this case, bacteria) consume the dead algae. They use oxygen in the process. Because there is a lot of dead algae, decomposers use a lot of the pond's oxygen.

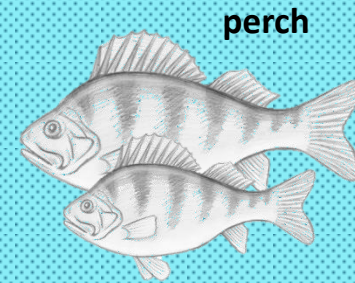
Because algae already have plenty of air, water, and sunlight, the nutrients from fertilizer allow them to grow very quickly. There is now much more algae in the pond.

Fertilizer from farmer's fields

Fertilizer from farmer's fields



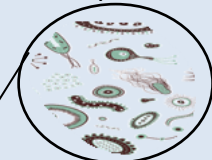
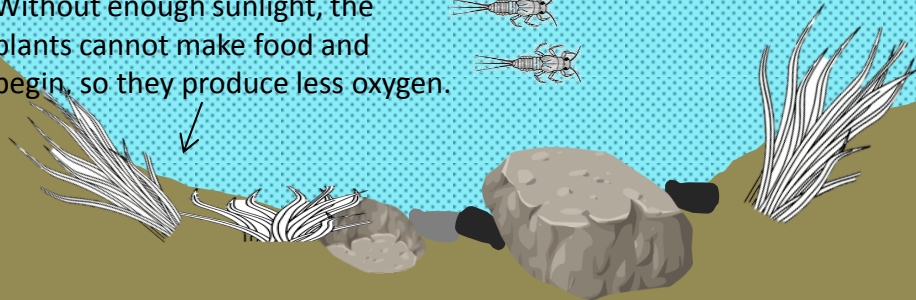
Algae growth causes the water to become cloudy and blocks sunlight to plants.



mayfly larvae

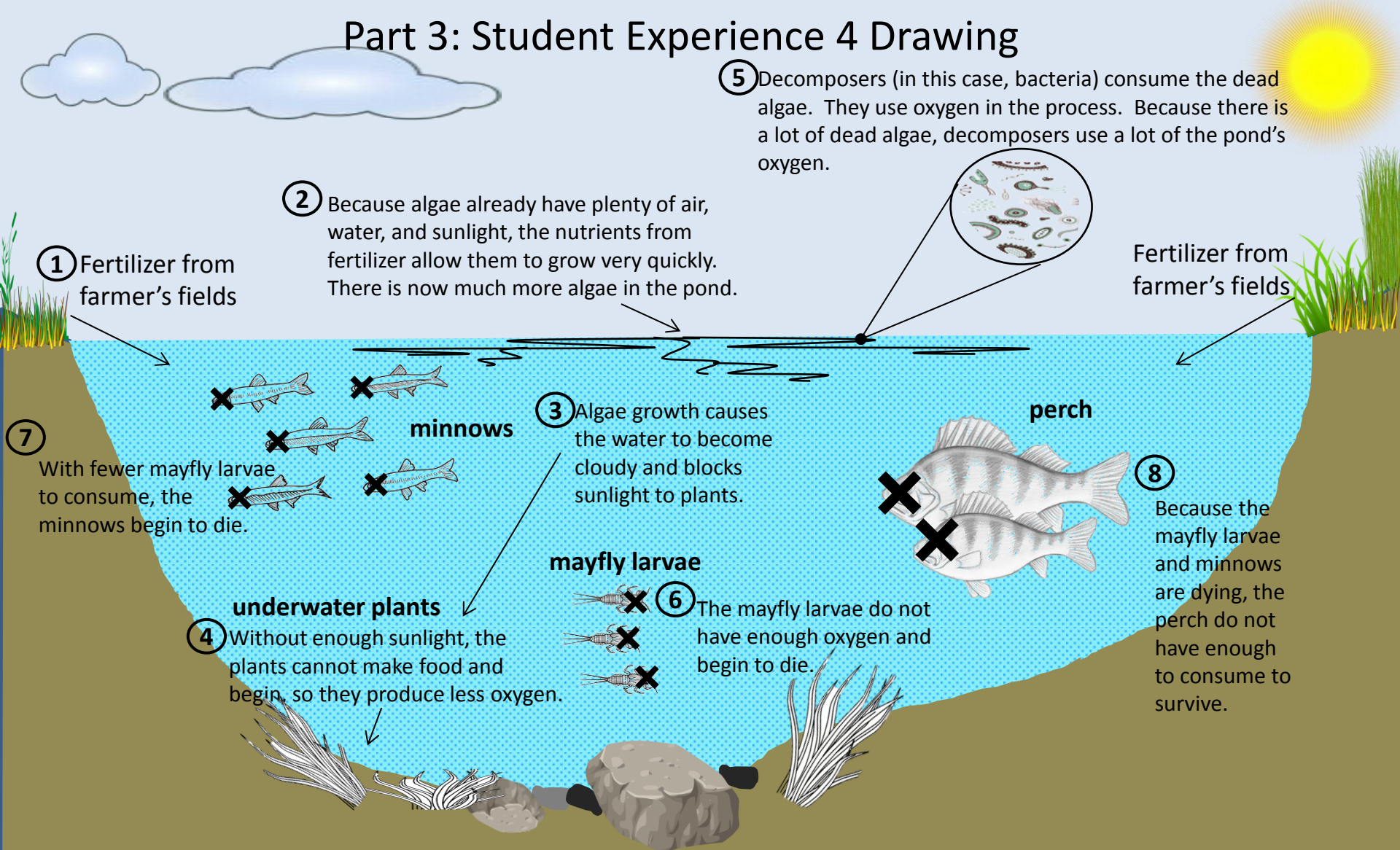
underwater plants

Without enough sunlight, the plants cannot make food and begin, so they produce less oxygen.



This drawing should include decomposers (bacteria) and their role in the pond.

Part 3: Student Experience 4 Drawing



① Fertilizer from farmer's fields

② Because algae already have plenty of air, water, and sunlight, the nutrients from fertilizer allow them to grow very quickly. There is now much more algae in the pond.

⑤ Decomposers (in this case, bacteria) consume the dead algae. They use oxygen in the process. Because there is a lot of dead algae, decomposers use a lot of the pond's oxygen.

⑦ With fewer mayfly larvae to consume, the minnows begin to die.

③ Algae growth causes the water to become cloudy and blocks sunlight to plants.

④ Without enough sunlight, the plants cannot make food and begin to die, so they produce less oxygen.

⑥ The mayfly larvae do not have enough oxygen and begin to die.

⑧ Because the mayfly larvae and minnows are dying, the perch do not have enough to consume to survive.

This final drawing should include the impacts on the organisms in the pond (i.e., the underwater plants as well as the mayfly larvae and plants are dying due to limited sunlight and oxygen). [Numbers are included here to represent an order of events, but are not necessary in student drawings.]