



NAME _____

DATE _____

Life Cycle Kit Experiment & Investigation

Goal: To observe and understand the mosquito life cycle and behavior.

Materials: Life Cycle Kit, microscope (optional)

Procedure:

1. Observe the behavior of the larvae/pupae in the small jar with the black lid, and/ or the emergence cage, then use magnifying glass (or a microscope if one is available) to get a closer look at the larvae/pupae.
2. Make sure that you look through the smaller lens in the magnifying glass, this will allow you to see the larvae and pupae in greater detail.
3. Take the vial filled with blue mosquito larvae food and carefully fill the cap of the vial 2/3 full. Pour the food from the cap into the small jar with the black lid (that is full of mosquito larvae) and gently shake the jar a few times so that the food mixes with the water. Do not eat the mosquito larvae food.
4. Use a magnifying glass (or microscope) to observe larvae feeding.
5. Remove a few larvae and pupae (with pipette) after 5, 30 and 60 minutes of feeding, and put them on glass petri dish with a little water to examine with magnifying glass or microscope.
6. Carefully observe how the larvae move when they are disturbed (gently tap on glass) and how they move when they are feeding.



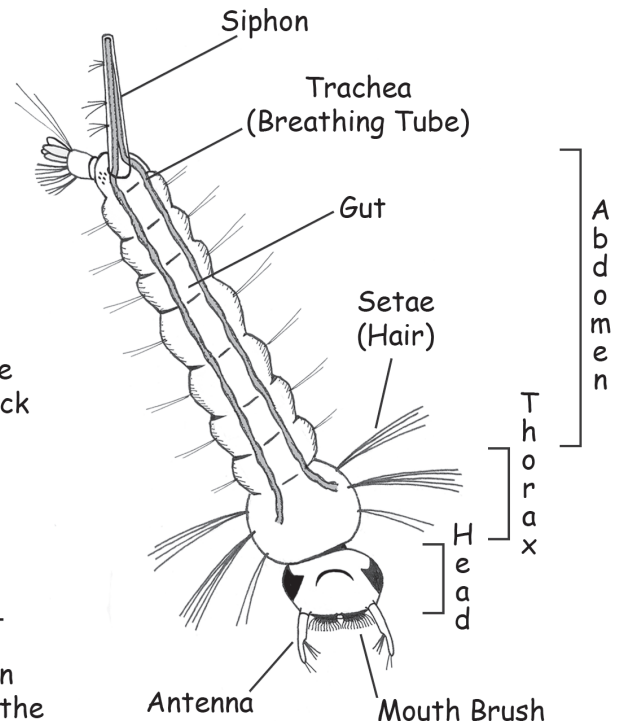
Observations

1. When you look at the larvae with the magnifying glass, what mosquito body parts can you see that you could not see very well when you were looking at them with just your eyes?

2. Use a magnifying glass to look at a mosquito that is hanging upside down at the surface of the water. On the diagram to the right, circle the part of the mosquito larvae that rapidly moves back and forth (like a brush).

3. Why do you think this body part is moving back and forth?

Mosquito Larva Diagram



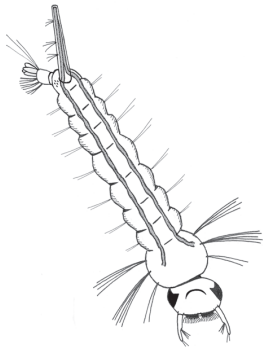
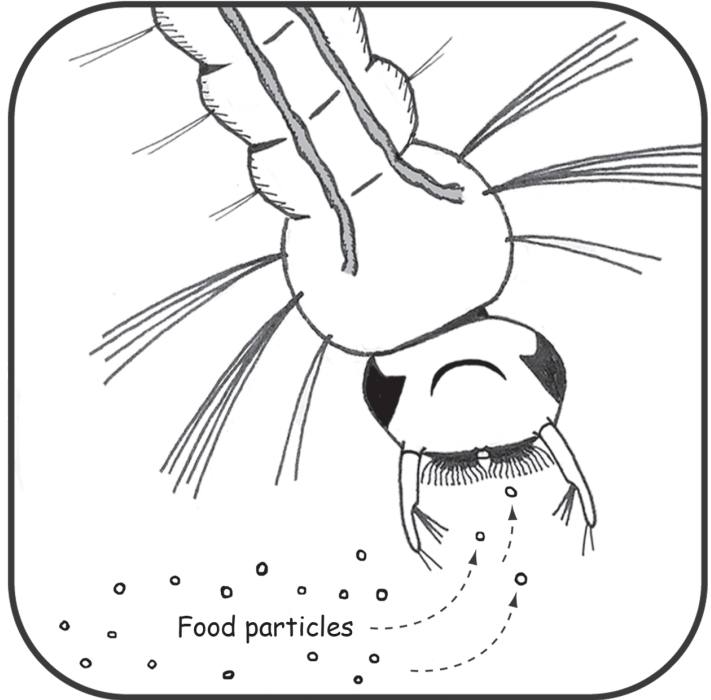
*** Do not complete the next part of the observation until you have fed the larvae the blue food from the Life Cycle Kit.



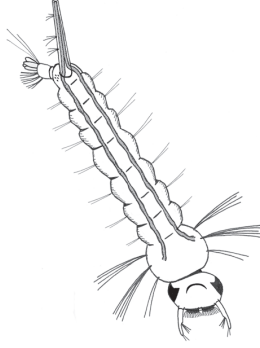
MOSQUITO SCHOOL

Observations

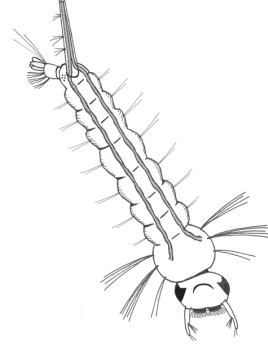
- When you look at the larvae with the magnifying glass, you should be able to see the mouth brushes quickly moving back and forth. The rapid movement of the mouth brushes suck in food particles. **Gently** shake the jar, wait a minute until the larvae go back up to the surface, and look carefully. Can you see the particles being sucked into the larva? _____
- Remove a few larvae from the jar 5 minutes, 30 minutes, and 1 hour after feeding and examine them in the petri dish. Look for the colored food inside the larvae. Put them back into the feeding jar after you examine them. On the diagrams below, color in where you see the food inside a larva after each time interval.



5 minutes after feeding



30 minutes after feeding



1 hour after feeding

- Examine how larvae move in the emergence cage. Compare how larvae move when disturbed and how larvae move when they are feeding.

7. Examine a pupa. Is any of the colored food inside the pupa? _____

Conclusion

- What have you learned about the way that mosquito larvae eat? _____
- Why was there no colored food inside of the pupae? _____
- List animals feed in a similar way to mosquito larvae? (other filter feeders)