Pond Water Lab

Name _______________________
Period _____ Date _____________

PURPOSE:
In this lab, you will be using a microscope to view unicellular and multicellular organisms. You will practice working with microscopes and identifying organisms.

PROCEDURE:
• Put one drop of pond water on the slide. Add a clean cover slip using the proper technique to avoid bubbles.
• Using the LOWEST power, find an organism to observe. (red lens)
• Move to the MEDIUM power to see more details. (yellow lens)
• Sketch what you see on the paper provided. The teacher will have to initial approval on each drawing while the specimen is still under the lens.
• Beneath the drawing:
  o Provide a brief description of the appearance of the observed specimen.
  o Label all noticeable features (flagella, cilia, cell wall, cell membrane, chloroplast, nucleus, etc.).
  o Finally, color your specimen drawing.
  o All of this should be done at the time of observation.
  o Name the specimen using the attached guide or other resources available.
• See Mrs. Feekes’ website for links to help you complete this at home if you don’t finish in class.

GRADING:
You will be working with a partner on this activity but each person must turn in his/her own lab report. You will be graded on the quality of each sketch (including color and labels), the accuracy of the description and name of each specimen, initials of teacher, and the neatness of your lab report.
You must have at least 7 organisms to get an A. If you find more than 7 different organisms (mostly of different kinds), you will be given 2 extra credit points for each specimen (up to 6 points).

CLEAN UP:
When finished with lab, please turn off your microscope, rinse all slides and cover slips and place on paper towels to dry. Clean up your area if there were any spills, etc.
Pond Life Identification

**Diatoms** – golden brown; variety of other shapes; glass-like cell wall
- Meridion
- Navicula
- Asterionella
- Tabellaria
- Surirella
- Gomphonema
- Fragilaria
- Pinnularia
- Chlamydomonas
- Chilomonas
- Rhizoclonium
- Zygnema
- Pediastrum
- Scenedesmus
- Cosmarium
- Micrasterias
- Closterium
- Euglena
- Spirogyra

**Algae** – green
- Hydrodictyon
- Rhizoclonium
- Chlamydomonas
- Chilomonas
- Cosmarium
- Micrasterias
- Closterium
- Euglena
- Spirogyra

**Single celled organisms** – attached or swimming; variety of colors
- Lyngbya
- Anabaena
- Ameba
- Stylonychia
- Vorticella
- Tetrahymena
- Paramedium

**Larger Organisms** – Usually visible with naked eye
- Rotifers
- Macrocylops
- Daphnia
- Bosmina
- Ostracod (Brown bi-valve)
- Helisoma
- Campeloma
- Hydracarina (water mite)
- Gammarus (amphipod)
- Damselfly nymph
- Gerris (water strider)
- Chaoborus ("phantom larva")
- Spirostomum (contracts when startled)
- Caddis fly larva
- Annelid (segmented)
- Dragonfly nymphs
- Planaria
- Mosquito larva
- Annelid (contracted)
- Roundworm (Nematode)
- Annelid (elongated)
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