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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  |  |  Plankton Net Microorganisms are living things barely visible to the naked eye. They are best observed under the microscope. Although quite small, they play a vital role in the health and productivity of aquatic ecosystems. Microorganisms that spend the majority of their time floating in the water are collectively referred to as plankton. There are two major categories of plankton based on their method of acquiring food:  **\***Phytoplankton: organisms capable of photosynthesis and act as key producers in aquatic systems  **\***Zooplankton: very small animals that eat the phytoplankton and act as a source of food for other animals    The concentration and type of plankton present in the water can be an indicator of water quality in the creek as well as biotic potential of the creek habitat. An abundance of phytoplankton can cause increased turbidity and decreased light penetration. It may also indicate a major shift in certain abiotic factors such as increased water temperature, increased nitrates, or increased phosphates.  The plankton net is used to collect plankton from the creek. It is a conically shaped net that has a very fine mesh that allows water to pass through but not the plankton. The net is tethered to a long piece of rope and tossed far from the bank and into the water (above right). As the net is pulled through the water the plankton collect in a plastic container at the base of the conically shaped net (right). Samples are taken back to the classroom and analyzed for number and types of microorganisms.  Looking for key [indicator species](http://docs.google.com/field_guide/indicator.html) can help us evaluate the condition of the creek. [Diatoms](http://docs.google.com/field_guide/protists.html), [daphnia](http://docs.google.com/field_guide/arthro/daphnia.html), [ostracods](http://docs.google.com/field_guide/arthro/ostracod.html), and [cyclops](http://docs.google.com/field_guide/arthro/cyclops.html) are often found in plankton net samples.[Click Here](http://docs.google.com/plankton.mov) to see a movie showing proper use of the plankton net     |  | | --- | | Copyright © 2008 Amador Valley High. All Rights Reserved. Reproduction in whole or in part in any form or medium without express written permission of Amador Valley is prohibited. | |