

## Unit Introduction Lesson Plan

### Key Understandings:

- Students will understand how water quality is relevant to humans and begin connecting the unit to their lives
- Students will understand some of the potential problems that poor water quality presents to humans / environment
- Students will understand what this unit is about, the goals of this unit, the kind of work they will be expected to perform, and what they will be expected to understand / be able to do at the end of this unit
- To find out how much the students already know about water quality and the various tests

### Time needed:

1 lesson

### Discussion:

- Start the class with a general open-ended discussion and group activity about water quality to get the students involved and get them to relate to the topic.  
Some questions to ask the class: (helps to ask every person to think about it for a minute; write down the answer)

- What do you understand as “water quality” – what are we talking about?
- When and how has water quality directly affected you?

Split up the class into 4 groups; each group has about 5 min to come up with 2 answers to each of the following questions.

- Is water quality directly relevant to us in any way – how can it affect us?
- Is it relevant to the natural environment – how can water quality affect it?

Discuss with the class

- Introduce the Unit
  - Put Unit Goals on Overhead (or project from computer) and hand out copies
  - Go over the Outline and describe what the unit will be like; answer questions
- Discuss the Boston Water Supply System (or your local water supply system) and see how much the students already know:

The following questions are useful in guiding this discussion:

- How does the Massachusetts Water Resources Authority (MWRA) ensure that we get good quality water?
- How does the water supply system function?
- What kind of things could create potential problems in the water?
- What does the MWRA test for?
- What are some things that have caused problems with water quality in the Boston area?

### Homework:

Read the web handout on a cryptosporidium outbreak and answer the questions on the handout.

**Handouts:**

*Unit Outline*

<http://learnweb.harvard.edu/ent/gallery/pop4/outline.pdf>

*Cryptosporidium Handout*

<http://learnweb.harvard.edu/ent/gallery/pop4/Cryptosporidium.pdf>

**Comments and further resources:**

If you are going to use the unit website with your class, it is helpful to stress repeatedly that they are expected to look at the site daily for assignments and resources.

The following page contains the cryptosporidium article in the handout:

<http://www.everpure.com/issues/iowq007.html>

You may also want to look at the following pages for some additional info:

<http://www.mwra.state.ma.us/germs/crypto.htm>

*Unit Website*

<http://learnweb.harvard.edu/ent/gallery/pop4/website/homepage.htm>