

## Classroom Activity

### Plankton Net Construction and Deployment

**Credit:** Erin B. Hobbs, Stoneham High School. Prepared for the New Bedford Oceanarium's WOW Mobile Curriculum in 2006

#### Objectives:

Construction of a plankton net, description of construction, and an evaluation of its use

**Grade Level: 6 – 8 and 9 - 10**

#### Enduring Understandings

- \* Reflection on how we know what we believe will help our understanding.
- \* Currently, the human species is significantly affecting earth's systems, but has the ability to choose its relationship with the environment.

#### Essential Questions

- \* How do researchers collect, analyze and observe plankton?
- \* What are humans doing to better understand plankton and those organisms that depend on it?

#### MA Content Standards:

**Science and Technology: Grades 6 – 8 and 9 - 10**

#### Physical Science:

##### 6 – 8

- \* 2.13 Give examples of ways in which organisms interact and have different functions within an ecosystem that enables the ecosystem to survive.

##### 9 – 10

- \* 2.6.4 Analyze changes in an ecosystem resulting from natural causes, changes in climate, human activity, or introduction of non-native species.
- \* 2.6.5 Explain how symbiotic behavior produces interactions within ecosystems.

#### Overview

Students will construct a plankton net..

#### Materials

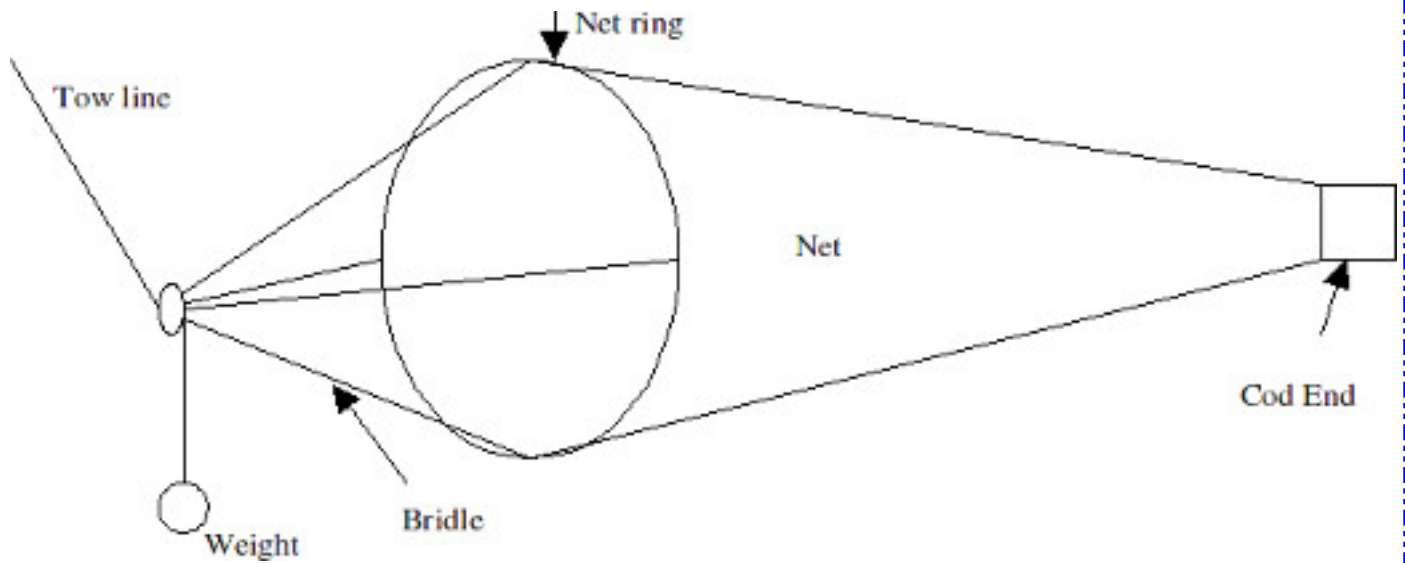
- \* Material (panty hose, fabric, old shirts)
- \* Duck Tape or thread
- \* String
- \* Cups or plastic bottles
- \* Coat hangers or copper tubing
- \* Rocks or weights
- \* Hand out below
- \* Evaluation
- \* A soundly constructed plankton net, description of construction, and an evaluation of its use

#### Activity

Students should have previous knowledge of a plankton net from learning experience three.

Discuss with the class the components that construct a plankton net. A diagram below describes the major components.

*(Activity - cont on page 2)*



Student will then construct a plankton net with the materials provided. It is suggested that one allows for constructive creativity in the project. Students will need to justify their choice of materials. This can be recorded in the handout.

When construction is completed student should test their net in local water or pools.

#### **Notes to Teachers**

\* Do not feel limited to the items listed under materials.

Name \_\_\_\_\_ Date \_\_\_\_\_

## Plankton Net Construction and Evaluation

### Construction

\* Using the materials provided, construct a plankton net. Describe the materials, how and why you chose them below.

1. Net:

2. Cod End:

3. Net Ring:

4. Bridle:

5. Tow line:

6. Addition components:

### Evaluation

- \* How did your plankton net do?
- \* Did any components fall apart? If yes, what components?
- \* If you had to construct a new plankton net, what changes would you make to your original design?
- \* Did you catch anything? If yes, what? If no, what explanation may you have for not catching something?