

PURPOSES:

- To work in a cooperative group to plan and build your own plankton net.
- To test the plankton net's ability to obtain samples of plankton.
- To view the collected plankton samples under the microscope.
- To investigate the biodiversity of plankton.
- To compare and contrast both fresh and salt-water plankton. (Long-range goal)

PROCEDURE:

a.) Form a cooperative group of about 4 students.

LAB PARTNERS:

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- b.) Brainstorm what common household objects you could use for the following parts of your plankton net: towing bridle; hoop or collar; filtering material; collector
 - c.) Record your brainstormed ideas in your data section.
 - d.) Think about shape, size, structure, durability, flexibility, and "getability" (this means do you have it or can you easily get it).
 - e.) Decide on who can and will commit to bringing in what materials and supplies.
 - f.) Determine what miscellaneous supplies you will need to build your plankton net in class.

ASSESSMENT:

Your project is worth a 100-point test grade. Your project grade is based on the following:

- ⇒ *how well you work in your cooperative group;*
- ⇒ *follow-through on bringing in materials;*
- ⇒ *teamwork and focus and help in the plankton net construction;*
- ⇒ *overall contribution to the group effort;*
- ⇒ *successful completion of the project;*
- ⇒ *completed plankton net lab packet.*

PLANKTON NET BRAINSTORMING:

TOWING BRIDLE MATERIALS:

1.) What does the towing bridle need to be able to do?

2.) What are characteristics of the towing bridle?

3.) List at least 3 different possible materials that you could use for the towing bridle.

- a.) _____
- b.) _____
- c.) _____

4.) Which material do you think will work the best? Which material did your group decide on?

HOOP OR COLLAR MATERIALS:

1.) What shape does this part of the plankton net have?

2.) What things do you have at home that have this shape?

3.) What does the hoop / collar part of the plankton net need to be able to do?

4.) Does it need to be rigid or firm or flexible or a combination of these?

5.) List at least 3 different materials that you could use for the hoop or collar.

a.) _____

b.) _____

c.) _____

6.) Which material do you think will work the best as the hoop or collar?

FILTERING MATERIAL:

1.) What does this part of the plankton net need to do?

2.) What are some important characteristics of the filtering material?

3.) List at least 3 different materials that you could use for the filtering material that would seem to have the needed characteristics that you indicated above.

a.) _____

b.) _____

c.) _____

4.) Which materials do you think will work the best as the filtering material of your plankton net?

COLLECTOR MATERIAL:

1.) What does the collector part of the plankton net need to do?

2.) What are some important characteristics of the collector?

3.) List at least 3 different materials that could be used for the collector.

a.) _____

b.) _____

c.) _____

4.) Which material do you think will work best as the collector?

WHO WILL BRING IN WHAT?

| LAB PARTNER | PART OF THE PLANKTON NET | MATERIAL TO BE BROUGHT IN |
|--------------------|---------------------------------|----------------------------------|
| | TOWING BRIDLE | |
| | HOOP or COLLAR | |
| | FILTERING MATERIAL | |
| | COLLECTOR | |

MISCELLANEOUS SUPPLIES THAT YOU WILL NEED:

SKETCH OF YOUR PLANKTON NET

