# Schools on Board
# Lab/Fieldwork Activity
# Example

(As it appears in the Student Handbook!)

**Filtration, the best way to learn about what's in the water!**

*Field Researcher*: Karine Lacoste
Subgroup 3 - Light, Nutrients, Primary and Export Production in Ice-Free Waters

*This fieldwork will take place*: Inside the ship; in the moonpool and in the filtration lab located on the lower deck at the front of the ship.

*Duration of the Fieldwork*: 1-1½hr

*Most Appropriate Time*: Any time of the day could do so long as a rosette cast has been done prior to the beginning of this fieldwork activity

*Number of Students*: Ideally 3 students at a time. Could be repeated with several groups throughout the day. My work is pretty straightforward and I think that it would be most interesting for the students to actually learn the filtration techniques and try them out themselves. The idea would be to take the students into the moonpool and show them how to take water samples from the rosette. Then, they would go into the filtration lab (located just next to the moonpool) and I could explain to them while doing a filtration the important things related to doing a good filtration. They could then proceed to doing 6 filtrations each (two water depths each with filter fractionning to allow students to see the difference between filtration done on different filter types). We would then proceed to putting the samples in the refrigerator and do readings of samples filtered by previous group (or by myself if needed) for chlorophyll *a* on the fluorometer. This activity would allow a total of 6 depths to be sampled in the water column which could then be processed together, as a group effort, during the lab activity.
*Note the filtration lab is very very small. Please insure that other lab activities are not scheduled in this lab during this period.

EQUIPMENT/INSTRUMENTATION (provided by our research group)
Rosette, 18 Filtration heads, fluorometer

METHODS
1. Collect water from the rosette
2. Filter water of different water depths on various filter types (GF/F, 5µm, 20µm)
3. Enter filtration information onto log sheet
4. Store samples into refrigerator
5. Do chlorophyll *a* and phaeopigment readings on fluorometer
6. Enter reading results onto logsheet

DATA COLLECTION

| Rosette bottle # | Depth sampled (m) | Filter type | Volume filtered (ml) | Reading a | Reading b |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |