



Piermont 5/20/15 - Margie's cell phone 845-729-8535
Split students into 3 different groups for AM rotations

ROTATION TIMES	Activity
9:00 at Lamont	Orientation & then Deployment to Pier
10:00-10:40	Rotation #1 – 1/3 group
10:50-11:30	Rotation #2 - 1/3 group
11:40-12:20	Rotation #3 - 1/3 group
12:30 –1:00	LUNCH
1:00-1:40	Rotation #4 – ½ group
1:45-2:30	Rotation #5 – ½ group
2:30 –3:00	Clean up and wrap up & head back to Lamont

Name	Activity Description -	Helpers	Rotation Order
1 - Chemistry	Chemistry – (salinity, DO, temp, pH, alkalinity, nitrates, phosphates) & weather connections	Teacher /Other	Red Breasted Sunfish
2 - Coring	Coring & the story of the sediments	Margie Turrin	Blue Fish
3 – Tides & Turbidity	Tides/Currents/ Depth/Turbidity	Brent Turrin	Menhaden (Green)
4 – Sea Level Rise	Macroinvertebrates	Teacher/Other	½ group
5 – Fish	Seining/Fish ID/ & Catch per unit effort	Margie	½ group

PLEASE BE SURE TO RETAIN THE MASTER RECORDING SHEET FOR EACH ROTATION SO THAT WE HAVE THE DATA TO DISCUSS

GOAL: Introduce students to doing *field work* - how collecting data in the field differs from working in the classroom or a lab. Building an understanding of the *ecosystem in the brackish* Piermont section of the river following a *systems approach*. Careful collection of their *own data*, which will be used as *secondary data* for others, so recording *metadata* is important.

FOCUS: The ‘River That Flows Both Ways’ is a *dynamic environment*. In this Hudson River program students will study the river system through the lens of a specific fish species that connects to the Piermont location in the river. At each station they will assess how the sample results connect to their specific fish. Each station builds into their understanding the full system.

OPERATIONS:

We have 30 students who will rotate as 3 groups in the AM. We have 3 AM stations and they will each do all three (labeled above). Our goal is to engage all of these students in the activity at each station, so if possible get them to run through the activities & tests. Coach them to run the activity and encourage them to think.

LOGISTICS:

IT IS IMPORTANT THAT AT THE END OF EACH ROTATION THE DATA BE POSTED/CHARTED!

Please be sure a student is assigned to post data in each group –on the post it board. Students will also record their own data. Collecting the data is key!

1. Each group will rotate through all stations following the same rotation so they will always go in the same order from whatever number they start at, as a counter clockwise rotation around the pier. If they start at station #1 they go to #2 etc. If they start at #3 they go to #1 etc. It is in a circle. The focus for each station should be **(1) What does this test tell us? (2) Why is this important for us to know? (3) What do the results mean to us i.e. what is it telling us about our fish species?**
2. **Thinking beyond the ‘number’** – Each station has an observational component. They can jot down thoughts, observations, sketch etc. Try and get them to slow down a minute to develop observational skills. The data collected is more than a number – there are interactions, impacts etc. focus on. Encourage a dialogue on observations – i.e. what might be influencing what they see, what would be worth noting.

PULLING IT TOGETHER & WRAPPING UP: At ever rotation as the data gets posted it is a good way to look at what might have changed during the day or what has remained the same. Does this make sense? i.e. might this be an error in procedure or is the system really changing?

At the very end of the day we try and wrap up the whole day by doing a quick look at the data so if you can have the post it boards come back at the end of the day to the end of the pier so we can talk about how their fish would have survived in the environment.

**PLEASE BE SURE TO RETAIN THE MASTER RECORDING SHEET FOR EACH
ROTATION SO THAT WE HAVE THE DATA TO DISCUSS
DEPARTURE:**

We will clean up and head back to LDEO.

Please clean up supplies after finishing your last tests...

THE SNAPSHOT DAY WEBSITE HAS LOTS OF INFORMATION

<http://www.ldeo.columbia.edu/edy/k12/snapshotday/>