

Name \_\_\_\_\_

Date \_\_\_\_\_

### Tides in the Hudson

The Hudson River is an estuary from the Troy dam all the way to New York City, which means that fresh and salt water mix in this area. The tides influence this mixing on a daily basis. The data below show salinity in the Hudson River over a four-day time period. They were collected in the Hudson River near West Point in August 1995 by scientists from the Cary Institute.

Create a graph using the data on the second page. Then answer the questions below.

1. What pattern do you notice?

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2. When is the lowest level of salinity? The highest?

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3. How do you think the Hudson River's tides impact the salt levels in the water?

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4. What do you think would happen to the salinity levels if it started to rain?

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5. What do you think would happen to the salinity levels if it didn't rain for weeks?

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6. If you were on a boat that started in Troy and sailed down the river towards New York City, and decided to measure salinity levels along the way, what trend do you think you would find as you moved along the river? Explain your answer.

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7. If the scientists had collected data for the whole month of August, how would you expect the data to change?

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8. How would you expect the data to change if it were collected for the month of April?

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## Hudson River Salinity: West Point

Time	Salinity (ppt)
16:00:00	1.83
17:00:00	2.18
18:00:00	2.14
19:00:00	2.52
20:00:00	2.88
21:00:00	2.91
22:00:00	2.9
23:00:00	2.6
00:00:00	2.86
01:00:00	2.44
02:00:00	2.55
03:00:00	2.21
04:00:00	2.16
05:00:00	2.17
06:00:00	2.41
07:00:00	2.38
08:00:00	2.28
09:00:00	2.41
10:00:00	2.52
11:00:00	2.62
12:00:00	2.83
13:00:00	2.84
14:00:00	2.46
15:00:00	2.1
16:00:00	1.79
17:00:00	1.9
18:00:00	2.12
19:00:00	2.19
20:00:00	2.47
21:00:00	3.11
22:00:00	3.33
23:00:00	3
00:00:00	3.12
01:00:00	3.8
02:00:00	3.21
03:00:00	2.9
04:00:00	2.88
05:00:00	2.68
06:00:00	2.5
07:00:00	2.49
08:00:00	2.43
09:00:00	2.45
10:00:00	2.61
11:00:00	2.87
12:00:00	3.22
13:00:00	2.83
14:00:00	2.45
15:00:00	1.99