Student Water Quality Handout

Testing Water Quality Parameters

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (sub)watershed Case Study

|  |  |
| --- | --- |
| Trial Number | Dissolved Oxygen (ppm) |
| Trial 1 |  |
| Trail 2 |  |
| Trial 3 |  |
| Average |  |

Sampling Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Follow the directions found at station one and test for dissolved oxygen levels.

Follow the directions found at station two and test for pH levels.

|  |  |
| --- | --- |
| Trial Number | Dissolved Oxygen (ppm) |
| Trial 1 |  |
| Trail 2 |  |
| Trial 3 |  |
| Average |  |

|  |  |
| --- | --- |
| Trial Number | pH level |
| Trial 1 |  |
| Trial 2 |  |
| Trial 3 |  |
| Average |  |

|  |  |
| --- | --- |
| Trial Number | Dissolved Oxygen (ppm) |
| Trial 1 |  |
| Trail 2 |  |
| Trial 3 |  |
| Average |  |

Follow the directions found at station three and test for phosphate levels.

|  |  |
| --- | --- |
| Trial Number | Phosphates (PO4) (ppm) |
| Trial 1 |  |
| Trial 2 |  |
| Trial 3 |  |
| Average |  |

Follow the directions found at station four and test for nitrate levels.

|  |  |
| --- | --- |
| Trial Number | Nitrates (NO3)(ppm) |
| Trial 1 |  |
| Trial 2 |  |
| Trail 3 |  |
| Average |  |

Follow the directions found at station five and test for ammonia (NH4)

|  |  |
| --- | --- |
| Trial Number | Ammonia (NH4)(ppm) |
| Trial 1 |  |
| Trial 2 |  |
| Trail 3 |  |
| Average |  |

Refer to tables 1 and 2 found on the fieldwork page of the GIS and Water Quality module.

Choose the table that contains water quality parameters for your subwatershed.

Use the table of water quality parameters that corresponds to your subwatershed to create graphs, on Excel showing the data for nitrates, phosphates, ammonia and pH for the years 2003 to 2013.

To complete the graphs add your groups data points fore each tested parameter to the graphs to analyze the relationship between their data and water quality data collected by the Horn Point Scientists.

Compile your observations and data to write a conclusion, making sure to support claims with evidence and scientific reasoning.  Explain the importance of your study to the water quality and overall health of the Chesapeake Bay and how the water quality in their watershed impacts the bay.