Weekend Science Project – Examining Local Water Quality

To be signed prior to the investigation:

As parent/guardian of ____________________________, I agree to assist my child in the collection of this data to the best of my ability. Further, I accept full responsibility for the safety of my child and will not hold the school, district or staff responsible for any accidents or injuries incurred as a result of this experience.

Parent signature ____________________________ Date __________

DATA SHEET

Location: __________________________________________

Date: __________ Time of day: __________ Air Temperature: __________ Cloud cover: ______________________

See individual Procedures sheets for details on testing/observations. Record all data on this sheet. Make careful measures and use metric units whenever possible. Have fun!

INORGANIC FACTORS:

BED COMPOSITION: Circle the response that best describes the underwater floor.

<table>
<thead>
<tr>
<th>BEDROCK</th>
<th>GRAVEL</th>
<th>SAND</th>
<th>MUD/SILT</th>
</tr>
</thead>
<tbody>
<tr>
<td>TURBIDITY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st measure</td>
<td></td>
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<tr>
<td>2nd measure</td>
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<tr>
<td>Total</td>
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<td></td>
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</tr>
<tr>
<td>Divide by 2 for Average</td>
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</tr>
</tbody>
</table>

WATER TEMPERATURE

| 1st measure | |
| 2nd measure | |
| Total | |
| Divide by 2 for Average | |

FLOW: Circle the response that best describes the movement of the surface water.

   LOTIC (moving water - 1 meter/______ seconds)   LENTIC (still, no current)

pH: single measure _________

DISSOLVED OXYGEN (D.O.): Single measure: _____ ppm

Using the nomograph, connect the points that show water temperature and D.O. The point where this line segment intersects the saturation line will give you the percentage.

D.O. SATURATION _________%
ORGANIC FACTORS: Refer to field identification references and pond guide and record observations in the correct category of the water column. Be gentle and return all living things to their habitat.

Surface (living near or on the surface of the water)

__________________________________________________________________________________________________
__________________________________________________________________________________________________

Free-living (found throughout the depth of the water)

__________________________________________________________________________________________________
__________________________________________________________________________________________________

Benthic (living near or on the underwater floor)

__________________________________________________________________________________________________
__________________________________________________________________________________________________

RIPARIAN ZONE: (These floodplain regions border aquatic systems and are occasionally flooded.)

Describe the vegetation. Look for evidence of wetland adaptations such as buttressing and water marks on tree trunks.

__________________________________________________________________________________________________
__________________________________________________________________________________________________

List the animals that make their homes in the riparian zone. Look for evidence such as tracks, scat, feathers, etc.

__________________________________________________________________________________________________
__________________________________________________________________________________________________

Although your investigation site may not be evident on this map, use landmarks to estimate about where you collected data. Mark this spot with a star on the map. Based on your spot, can you determine in which major watershed region you are located?