Classroom Program: Water Quality Lab

Audience: 3rd – 8th grade students

Length: 30-45 Minutes

Location: Classroom program

Program Goals:
1) To introduce students to the idea of biological indicators
2) To help students understand water quality and its effects on organisms
3) To help students understand pollution tolerance levels in organisms

Option One Materials:
• Computer
• Projector
• Critter Score Card (1 for each student, multiple copies can be made of the following page for students)

Option Two Materials:
• Computer
• Projector
• Whiteboard
• Whiteboard markers
• Volunteer to record data

Procedure:

Set Up/Introduction (2-3 Minutes)
- Explain to the class that they will now be doing a post-field trip activity and that they need to do their best to remember the things they found during the aquatic invertebrate exploration station
- **Option 1**: Pass out critter score cards to each student
- **Option 2**: Have volunteer recreate the critter score card (third page) on the whiteboard

Lab (20-30 Minutes)
- Work through the beginning slides as a class
- Ask the questions on the slide; allow students to guess, and then click to get the correct answer
-Follow the slide directions

-**Option 1:** Have students fill out Critter Score cards individually throughout slideshow

-**Option 2:** After the “One Point critter” picture Id slide pause and ask students how many organisms they caught on that slide as a class, then have the recorder write this number in the corresponding box on the data table created on the whiteboard (repeat for all three tolerance groups)

-Follow up with the “Review” slide to check for understanding

-Collect Worksheets (If Applicable)
Critter Score Card

Water Quality Data Table

<table>
<thead>
<tr>
<th>Creature</th>
<th>Amount Found</th>
<th>Multiply</th>
<th>Point</th>
<th>Equals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Point</td>
<td>X</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Point</td>
<td>X</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Point</td>
<td>X</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Now total your score by adding up all three scores in the column labelled “Equals”

My total Water Quality Score is: ____________

Water Quality Index

<table>
<thead>
<tr>
<th>If your score is:</th>
<th>Your water Quality is:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 10</td>
<td>Poor</td>
</tr>
<tr>
<td>Between 11-16</td>
<td>Fair</td>
</tr>
<tr>
<td>Between 17-22</td>
<td>Good</td>
</tr>
<tr>
<td>23 or More</td>
<td>Excellent</td>
</tr>
</tbody>
</table>

Based on the Water Quality Index my Water Quality is: ____________