



Water Data Analysis Sheet

FIRST NAME: _____

School: _____ Water Site: _____

Hour: _____ Group: _____ Date: _____

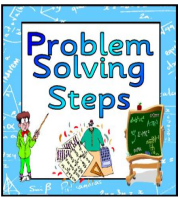
Measurement	Average	Best	Good	Fair	Poor	Score
Nonchemical Tests	XXXXXXXX X	4	3	2	1	XXXXXXXX X
Air Temperature (° Celsius)		XXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXX
Water Temperature (° Celsius)		Below 32° C; site has some shade from trees and/or grass	Below 32° C; site has little to no shade from trees and/or grass	Above 32° C due to lack of shade	Above 32° C due to effluent from farm runoff or non-farm industry	
Turbidity (cm)		Greater than 60 cm	30 to 60 cm	10 to 30 cm	Less than 10 cm	
pH		Between 6.5 and 8.5			Lower than 6.5 OR higher than 8.5	
Conductivity (mg/l)		Below 500 mg/l	Between 501 and 750 mg/l	Between 751 and 1000 mg/l	Above 1000 mg/l	
Chemical Tests	XXXXXXXX	4	3	2	1	XXXXXXXX
Phosphate (parts/million)		None detected	Detected but less than 1 mg/l	Between 1 and 10 mg/l	Greater than 10 mg/l	
Nitrate Nitrogen (parts/million)		None detected	Detected but less than 1 ppm	Between 1 and 10 ppm	Greater than 10 ppm	
Coliform Bacteria (# of colonies)		None detected	Less than 20 colonies per plate	20 to 50 colonies per plate	More than 50 colonies per plate	
Dissolved Oxygen % of Saturation		80% to 120% of saturation	60% to 80% OR 120% to 140% of saturation	50% to 60% of saturation	Below 50% of saturation	
Macroinvertebrates	XXXXXXXX	4	3	2	1	XXXXXXXX
Overall Macroinvertebrate Rating		Macro score is greater than 22	Macro score is between 17 to 22	Macro score is between 11 to 16	Macro score is less than 11	
Overall Quality (Add the #s in the Score column and divide by 9)	XXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	

Circle all the 1's and 2's in the "SCORE" column (excluding the "OVERALL QUALITY" number).

Tests with scores of 1 or 2 indicate that those pollutants are a problem at your water site.

Overall Quality Rating

1 to 1.75 – **POOR**, 1.76 to 2.75 – **FAIR**, 2.76 to 3.75 – **GOOD**, 3.76 to 4 – **BEST**



Issues and Actions
Now What??

Name: _____ Name of Water Site: _____

What was the problem(s) at your water site?

List all tests from the Data Analysis Sheet with a score of 1 or 2. _____

As a class, choose one problem from the list above to investigate. Write that problem on the line below.

Identified Problem: _____

GENERATING SOLUTIONS:

In your group, choose one person to be the **SPOKESPERSON**, one person to be the **RECORDER**, one person to be the **TIME KEEPER**, and one person to be the **INFORMANT**. (Look on your table for descriptions of each of those jobs.) Next, each member of your group or team will take turns sharing their solutions to the problem listed above. During this time, the **RECORDER** should be taking notes in the space below. These solutions will be shared with the entire class by the **SPOKESPERSON**. Possible Solutions: (Please list at least 3)

ANALYZING OBSTACLES:

With every solution, there may be obstacles you encounter. Look over the questions below and record any obstacles you may face while implementing your solutions. Discuss as a team how to overcome these obstacles. Record Keeper should record your ideas below.

- | | |
|--|---|
| Will a new law need to be passed? | Is it practical? |
| Is the solution based on sound, scientific data? | Will it be expensive to implement? |
| What side effects might there be? | How much time will it take? |
| Will it be easy to put into practice? | Will it cause job losses? |
| Will it be accepted by the community? | Is it political in nature? |
| Are there unintended consequences? | Will it harm the environment? |
| Can it be done by group members, or will you need outside help? | |

Obstacle:	Resolve the Obstacle:
_____	_____
_____	_____
_____	_____

Now that your teams have had time to discuss the solutions and possible obstacles you may face, it is time to vote and choose ONE solution for your class to put into action. Record the solution your class chose here:

To help solve the problem of _____

at _____, our class decided to _____

Will You Need Help? If so, from whom?

After looking over the list of **POSSIBLE PLAYERS**, record the people or groups who might be involved in helping to solve the problem:

_____	_____
_____	_____
_____	_____

Finally, as a team, fill in the chart below to determine the action steps needed, and who will be involved. Also, when do you want to begin to put your plan in place? _____ Date of completion? _____

Action Steps	Who Will Help?

Additional Notes: Things to do and remember when carrying out our plan:
