FLOW RATE WORKSHEET

Name:

Date:

Class period:

Record your data. Bucket #2, freshwater:
Dissolved Solids (TDS) readings:

Pump speed	Slow	Fast
Time (minutes)	TDS (ppm)	TDS (ppm)
0		
5		
10		
15		
20		
25		
30		
35		
40		
45		
50		
55		
60		

Chart your data. Enter the units for the X (time) and the Y-axis on the graph below. Graph your TDS reading on Y-axis against time (X-axis).

Calculate the TDS change rate:

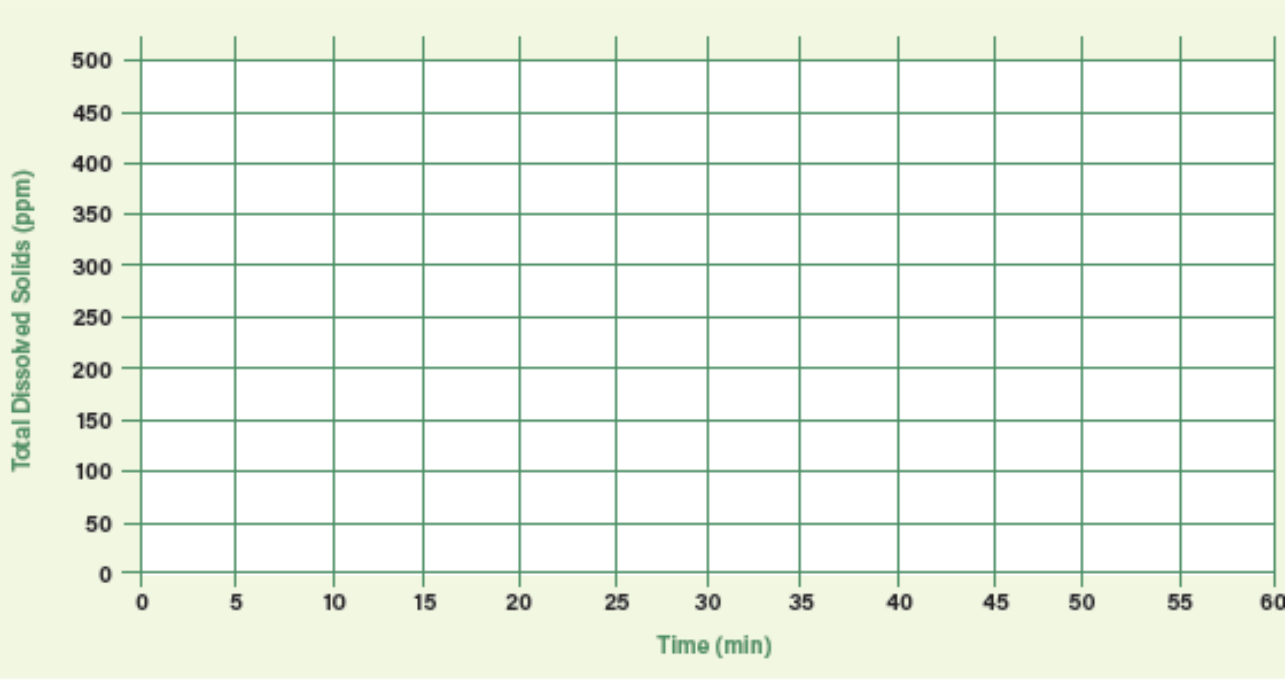
$$(TDS2 - TDS1) = (t2 - t1)$$

- TDS - Total Dissolved Solids
- t - time

TDS change Rates:

At low pump speed _____

At high pump speed _____



Questions

1. How did flow rate impact the TDS? (salt)

2. Based on your understanding of how flow rates impacted TDS (salt), how do you think flow rates impact nutrient and oxygen supplies in an aquaponics system?

3. How do flow rates impact point-source pollution in rivers?

4. How does flow rate or mixing affect water quality in rivers and lakes?

NOTES