



### *“Where does that data go?” Game and Data Table Worksheet*

Overview: Sometimes students struggle with understanding where data should go on a table. The attached cards have a date or a date and a measurement. Students should learn that the units are important because it shows us what measurement it is and that we can't just put the data anywhere. If we take data on a Friday, it shouldn't go on Wednesday's row. This game helps students learn about recording data and the importance of units.

Subject Areas: Math, Science

Grade Levels: K-5, 6-8

Topics: STEM (Science, Technology, Engineering, Math)

Great Lakes Literacy Principles:

4. Water makes Earth habitable; fresh water sustains life on land. :

Materials:

- “data” cards
- White board with markers
- Tape
- Data Table Worksheet (see other curricula on Rivers2Lake website)

Essential Question: Where does each piece of data belong in a table?

Learning objectives:

- Be able to state the units of each component of the table (date, notes, dissolved oxygen, turbidity, temperature, and pH)
- Be able to put data in the correct location on the table according to the correct date and component using the unit provided
- Be able to explain, in their own words, what the term “dissolved oxygen”

Introduction:

“Good afternoon everyone! Can someone tell me: what was it that we tested last week?”

“Does someone have a definition for dissolved oxygen?”

“Does anyone remember what our result was? (Pause) Let’s take a look back at our tables.”

“So, our result was 11 mg/L. Now, I know a lot of people were a little confused about tables so let’s do a couple of examples of good data taking and not so good data taking. First, the headers tell us what data goes where in which column. The columns are the vertical or up and down lines.”

“Should we be putting the date as the temperature? (Pause, wait for head shakes/nods) No, probably not. Next, the rows, or the horizontal lines, tell us the data for that day. I want us to review the units of everything.”

“Does the date have a unit? (Pause, wait for answers or call on students) No, but what is the format? What does each number represent?”

“Why is it important that all of us write the date this way?”

“Ok, now, what is the unit or units we can use for temperature?”

“Why is it important that we make sure to say whether we use Celsius or Fahrenheit?”

“What about the units for pH? (Hopefully a student points out there are no units) What does the pH measure?”

“So I never really discussed what the units were for dissolved oxygen and turbidity. Dissolved oxygen is mg/L and turbidity is NTU. Do our notes have a unit? (have students answer) Why not?”

“We’re going to play a little game of ‘Where does that data go?!’ so I’m going to pass out cards and we’re going to, as a class, figure out where they go on the board, which will look like our data tables. All of the information has a date on it. This tells you when this data was taken. Let’s start off with the people that have just the date on their cards. So, if you have a card with a date, I want you to come stand up.”

“Let’s think for a moment. How should we order these dates?” (students should say in order from first to last, etc. After dates are put up, have students sit down)

“Now, let’s go around and see what data we have (go in a circle or order and have students discuss with a partner while one student at a time holds up the card they have assist them by referring them to units).