



## Data Analysis Worksheet

### STEP 1: DATA COLLECTION

**Directions:** Use the information on this website to answer the questions in the table below:  
<https://stateclimatologist.web.illinois.edu/current-conditions/>

Question	Answer
1. Date range of observation for the last 7 days:	
2. In the last 7 days, what is the average total for your county? Be sure to label the data with either inches (precipitation) or degrees (temperature).	
3. In the last 7 days, what is the departure from average for your county? Don't forget to label the data.  <i>Example: -0.2 to -0.4 inches less than average or 2 degrees departure from mean</i>	
4. Now take a look at the Year to Date maps. List the date range of observation for the Year to Date:	
5. According to the Year to Date map, what is the average total for your county? Be sure to label the data.	
6. What is the Departure from Average for the Year to Date for your county?	

YOUR NAME: \_\_\_\_\_

TEAM MEMBERS NAME(S): \_\_\_\_\_

ASSIGNED CLIMATE FACTOR (circle one):                      Precipitation                      Temperature

### STEP 3: ANALYZE DATA

**DIRECTIONS:** Using the information above, answer the questions below. .

1. **What trends can you identify in the average total precipitation or temperature for your county over the last 7 days compared to the year-to-date average?** *(Hint: See if the data in the last 7 days are higher, lower, or similar to the year-to-date average.)*
  
2. **How does the departure from average in the last 7 days compare to the departure from average for the year-to-date?** *(Hint: Analyze if there are significant differences in trends between these two time periods.)*
  
3. **Based on the year-to-date averages, what recommendations would you give to farmers regarding crop selection and planting schedules for the upcoming season?** *(Hint: Hypothesize about future conditions based on recent data.)*
  
4. **Share one additional observation from the data that you collected:** *(Hint: This should be something that you observed that has not already been asked in the 3 above questions).*

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YOUR NAME: \_\_\_\_\_

TEAM MEMBERS NAME(S): \_\_\_\_\_

ASSIGNED CLIMATE FACTOR (circle one):                      Precipitation                      Temperature

## STEP 4: INTERPRET & DRAW CONCLUSIONS

**Directions:** Write a one-sentence statement that interprets the data that you have analyzed.  
*(Example: In the last week, Schuyler County, IL had less rain (0.3 to 0.4 inches) and cooler temperatures (50-55°F) than usual, and overall this year, the county has also seen 30-32 inches of rain and temperatures that are about 2 degrees lower than average.)*

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YOUR NAME: \_\_\_\_\_

TEAM MEMBERS NAME(S): \_\_\_\_\_

ASSIGNED CLIMATE FACTOR (circle one):                      Precipitation                      Temperature

## TEACHER GUIDE

*NOTE: As the teacher, you decide how strictly you want to enforce labels and qualifying statements. The overall purpose of this lesson is for students to briefly gather data from a source that is often used in the agriculture industry (weather maps) and then apply that data in a way that translates to ag production. If you have previously covered scientific labeling and qualifying statements, it would be appropriate to maintain that expectation in the worksheet below. If not, it may be a learning opportunity to illustrate how those statements can be helpful in interpreting the data they collected, but it is not recommended that students be penalized for excluding that information if it has not previously been taught in the class.*

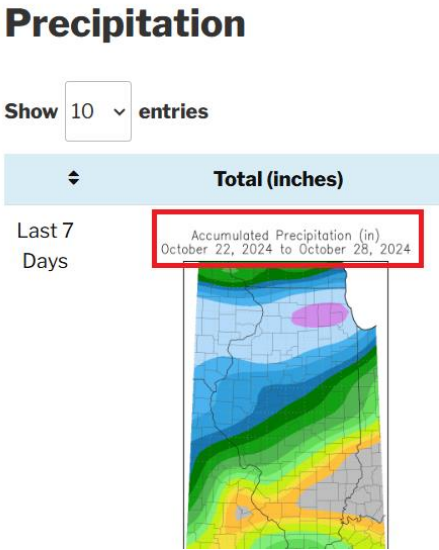
# Data Analysis Worksheet

## STEP 1: GATHER DATA

**Directions:** Use the information on this website to answer the questions in the table below:  
<https://stateclimatologist.web.illinois.edu/data/precipitation-maps/>

Precipitation Group: Use the “Precipitation” tables at the top of the page

Temperature Group: Use the “Average Temperature: tables

Question	EXAMPLE Answer (will vary!!)
<p>1. Date of the last observation for the last 7 days:</p> 	<p>This will vary - the question is asking for the date that is found on the first map that is listed under “Last 7 days” in their particular category.</p> <p><i>Example Response:</i>        October 22, 2024 to October 28, 2024</p>

<p>2. In the last 7 days, what is the average total for your county? Be sure to label the data. (Degrees, inches, etc.)</p> <p>Students can use this tool to search for their county if needed:  <a href="https://www.statsamerica.org/CityCountyFinder/">https://www.statsamerica.org/CityCountyFinder/</a></p>	<p><i>*The map may differ across the county. You could either ask students to report the entire range or to select the location of the school and report on that range.</i></p> <p><i>**Example Responses (the answer will be either temperature or precipitation, depending on group assignment)</i></p> <p><i>Precipitation: 0.3 to 0.4 inches</i></p> <p><i>Temperature: 50-55 °F</i></p>
<p>3. In the last 7 days, what is the departure from average for your county? Don't forget to label the data.</p>	<p><i>Example Responses:</i></p> <p><i>-3 to -2 inches less or</i>  <i>2 degrees departure from mean</i></p>
<p>4. Now take a look at the Year to Date maps. List the date range of observation for the Year to Date:</p>	<p><i>Example Response:</i></p> <p><i>January 1, 2024 to October 29, 2024</i></p>
<p>5. According to the Year to Date map, what is the average total for your county? Be sure to label the data.</p>	<p><i>Example Responses:</i></p> <p><i>30-32 inches or</i>  <i>50-55 °F</i></p>
<p>6. What is the Departure from Average for the Year to Date for your county?</p>	<p><i>Example Responses:</i></p> <p><i>-3 to -2 inches less or</i>  <i>2 degrees departure from mean</i></p>

## STEP 3: DATA ANALYSIS

**DIRECTIONS:** Using the information above, answer the questions below.

1. **What trends can you identify in the average total precipitation or temperature for your county over the last 7 days compared to the year-to-date average?** (*Hint: See if the data in the last 7 days are higher, lower, or similar to the year-to-date average.*)

*Answers will vary depending on recent weather conditions. The key is for students to go through the exercise of analyzing the data critically.*

2. **How does the departure from average in the last 7 days compare to the departure from average for the year-to-date?** (*Hint: Analyze if there are significant differences in trends between these two time periods.*)

*Answers will vary depending on recent weather conditions. The key is for students to go through the exercise of analyzing the data critically.*

3. **Based on the year-to-date averages, what recommendations would you give to farmers regarding crop selection and planting schedules for the upcoming season?** (*Hint: Hypothesize about future conditions based on recent data.*)

*Answers will vary depending on recent weather conditions. The key is for students to go through the exercise of analyzing the data critically.*

4. **Share one additional observation from the data that you collected:** (*Hint: This should be something that you observed that has not already been asked in the 3 above questions.*)

*Answers will vary depending on recent weather conditions. The key is for students to go through the exercise of analyzing the data critically.*

## STEP 4: INTERPRET & DRAW CONCLUSIONS

**Directions:** Write a one-sentence statement that interprets the data that you have analyzed.  
*(Example: In the last week, Schuyler County, IL had less rain (0.3 to 0.4 inches) and cooler temperatures (50-55°F) than usual, and overall this year, the county has also seen 30-32 inches of rain and temperatures that are about 2 degrees lower than average.)*