

WORKSHEET

Name: _____ Hour: _____

Date: _____

Climate Change and the Future of Michigan Cherries:
- Lesson 2 KWL Worksheet -

K (What I Know)	W (What I Want to Know)	L (What I Learned)

Climate Change and the Future of Michigan Cherries:
Lesson 2 KWL Worksheet Continued

K (What I Know)	W (What I Want to Know)	L (What I Learned)

WORKSHEET

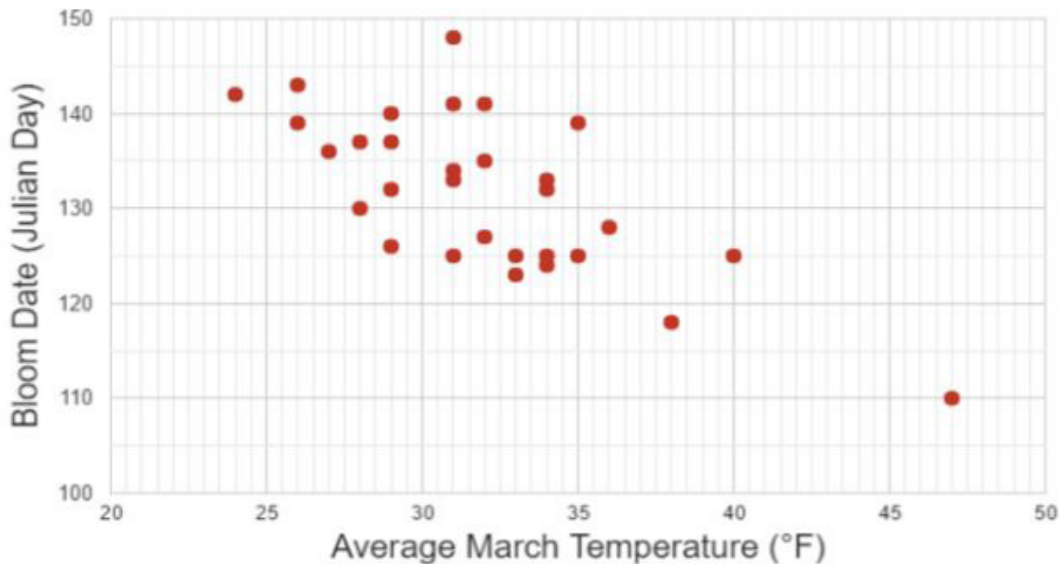
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Climate Change and the Future of Michigan Cherries: - Lesson 2 Worksheet & Homework -

1. Estimate the line of best fit (using a straightedge) on the graph below.
2. Using another color pen or pencil, add the actual line of best fit.

Blooming Date of Tart Cherries in Michigan as a function of March Temperature



3. What does this graph and the line of best fit equation tell us about the relationship between the variables Average March Temperature and Bloom Date?
4. Estimate the average date of bloom according to the graph. (Approximately what day to cherries seem to bloom most often?)
5. What is the equation for the line of best fit for our graph?

$$(\quad) = (\quad)(\quad) + (\quad)$$

Climate Change and the Future of Michigan Cherries:

Lesson 2 Worksheet & Homework

6. What does each part of the equation mean in general and in this context?

- X
- Y
- M - specifically, for every degree warmer, how many days earlier do the cherries bloom?
- B - If there was an Avg. March temperature of 0 degrees, what day would the cherries bloom according to our model? How different is this than the average date of bloom (located on your data table)?

7. Use the line of best fit and its equation to predict the Bloom Date if Avg. March temp. Is: (include both Julian Day format and actual data, e.g. May 12.)

- 0 degrees: _____
- 25 degrees: _____
- 30 degrees: _____
- 45 degrees: _____

HOMEWORK

1. What impact may early or late bloom dates have on cherry farmers and the larger population?

2. Reflect on the strengths and limitations of your graph. What can it help farmers with? What doesn't the graph do? How could you make it more accurate?