$\qquad$ per $\qquad$

## The Temperature of Portland

Temperature is an important piece of information to have. It can help us understand the climate and in what ways it is changing.

## Historic Average

The temperature for long periods of time are averaged to determine the historic average.


## September 2019

Weather Forecast - this was the predicted weather.

1. Fill in the actual high from your weather tracker

| Date | Forecast Eigh | Zctual Eigh | Date | Forecast migh | Zctual migh |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $9 / 2$ | $80^{\circ} \mathrm{F}$ | $83^{\circ} \mathrm{F}$ | $9 / 9$ | $70^{\circ} \mathrm{F}$ | $69^{\circ} \mathrm{F}$ |
| $9 / 3$ | $81^{\circ} \mathrm{F}$ | $84^{\circ} \mathrm{F}$ | $9 / 10$ | $72^{\circ} \mathrm{F}$ | $68^{\circ} \mathrm{F}$ |
| $9 / 4$ | $84^{\circ} \mathrm{F}$ | $79^{\circ} \mathrm{F}$ | $9 / 11$ | $74^{\circ} \mathrm{F}$ | $74^{\circ} \mathrm{F}$ |
| $9 / 5$ | $82^{\circ} \mathrm{F}$ | $88^{\circ} \mathrm{F}$ | $9 / 12$ | $76^{\circ} \mathrm{F}$ | $81^{\circ} \mathrm{F}$ |
| $9 / 6$ | $80^{\circ} \mathrm{F}$ | $79^{\circ} \mathrm{F}$ | $9 / 13$ | $74^{\circ} \mathrm{F}$ | $76^{\circ} \mathrm{F}$ |
| $9 / 7$ | $75^{\circ} \mathrm{F}$ | $68^{\circ} \mathrm{F}$ | $9 / 14$ | $74^{\circ} \mathrm{F}$ | $76^{\circ} \mathrm{F}$ |
| $9 / 8$ | $73^{\circ} \mathrm{F}$ | $70^{\circ} \mathrm{F}$ | $9 / 15$ | $78^{\circ} \mathrm{F}$ | $65^{\circ} \mathrm{F}$ |

## Graphing (Portland 9/2-9/15)

Create a line graph that includes all of the following for the dates in the table above:
A. Historic Average
B. Forecast High
C. Actual High

Your graph should include all of the following:
$\square$ Different colored lines for all three temperature lines
A A key to show which temperature is which color

- A title
- A labeled x-axis
- A labeled $y$-axis
- Neatly written labels

Attach it to the back of this page.

## Analysis

Answer the questions with detail and thought.

1. Compare: What was similar between the forecast and actual highs?
2. Contrast: What was different about the forecast and the actual highs?
3. Compare and Contrast the historic average and the actual high.
4. (Thinking Question) Do you think that we can see evidence of climate change by looking at this data?

Learning Target:I can explain the causes of patterns of atmospheric and oceanic movement and the effects on weather and climate.

| 4 Highly Proficient | 3 Proficient | 2 Close to Proficient | 1 Developing |
| :---: | :---: | :---: | :---: |
| - Analysis is detailed and shows thought. <br> - The graph represents the data at a high level and includes all parts. | - Analysis is complete. <br> - The graph is correct and includes most parts | - My answers need more detail. <br> - The graph is incomplete. <br> - The graph is incorrect. | - I am missing my graph <br> - I show no understanding of the temperature data. |

