

## Graphing High Tides &amp; Moon Phases

**February 2015 High Tides for Seaside Heights, NJ**

Date	Height of High Tide (ft)		Moon Phase
	AM	PM	
2/3/15	4.6	4.2	Full Moon
2/7/15	4.2	4.0	Waning Gibbous
2/11/15	3.5	(don't connect, no data)	Last Quarter
2/14/15	4.3	3.6	Waning Crescent
2/18/15	5.5	5.0	New Moon
2/21/15	5.3	5.2	Waxing Crescent
2/25/15	4.6	4.1	First Quarter
2/28/15	4.1	3.8	Waxing Gibbous

**Directions:**

1. Looking at the data above, add the dates to the x-axis of your graph
2. Add a title to your x-axis - "Dates"
3. Draw the phases of the moon for each corresponding date
4. *On the y-axis, add the increments for feet. Be sure to evenly space numbers.*
5. On the y-axis, add your title - "Height of Water in Feet"
6. Using a **red** colored pencil, add the data points for the high tides for AM
7. Connect the data points using a smooth/wavy line
8. Using a **blue** colored pencil, add the data points for the high tides for PM
9. Connect the data points using a smooth/wavy line
10. Add a key to your graph

**Analysis:** Answer the questions below using your data chart and graph. Be sure to list the date, time of day (am/pm), feet, and moon phase in your answer as needed.

1. When did the highest high tide occur? When did the lowest high tide occur?
2. When did the largest difference in high tide occur on the same day?
3. When did the smallest difference in high tide occur on the same day?
4. Were Neap Tides or Spring Tides higher? Explain.
5. Were there any other patterns that you notice?

