

# **Common Writing Assignment: Science**

# Why are there seasons?

Boston experiences drastic changes in temperature over the course of a year. In the winter, the average temperature in Boston is around 36°F. In the summer, it increases to 82°F. Using the data tables below as well as data that you have collected in class, write a paper explaining why there are seasons.

#### Distance between the Sun and Earth

| Date      | Earth's distance from the Sun (km) |  |
|-----------|------------------------------------|--|
| January 3 | 147,000,000                        |  |
| July 4    | 152,000,000                        |  |

#### Hours of Daylight by Month

| Date         | Hours of daylight<br>in Boston |
|--------------|--------------------------------|
| January 21   | 9 h 36 min                     |
| February 21  | 10 h 51 min                    |
| March 21     | 12 h 13 min                    |
| April 21     | 13 h 40 min                    |
| May 21       | 12 h 48 min                    |
| June 21      | 15 h 17 min                    |
| July 21      | 14 h 48 min                    |
| August 21    | 13 h 37 min                    |
| September 21 | 12 h 11 min                    |
| October 21   | 10 h 47 min                    |
| November 21  | 9 h 34 min                     |
| December 21  | 9 h 5 min                      |

### Solar Angle by Month

(90° would be directly overhead)

| Date         | Angle of Sun<br>in the sky |
|--------------|----------------------------|
| January 21   | 27.7°                      |
| February 21  | 37.1°                      |
| March 21     | 48.2°                      |
| April 21     | 59.8°                      |
| May 21       | 68.0°                      |
| June 21      | 71.1°                      |
| July 21      | 67.9°                      |
| August 21    | 59.5°                      |
| September 21 | 48.0°                      |
| October 21   | 36.7°                      |
| November 21  | 27.6°                      |
| December 21  | 24.2°                      |

## Don't Forget to...

Plan your writing using an outline, web or graphic organizer. As you write each draft of your assignment, it's important to use what you know as a writer to communicate your ideas effectively.

- $\checkmark$  Provide a clear <u>claim</u> that answers the question.
- ✓ Include <u>evidence</u> -- using data from class activities, experiments and other resources.
- ✓ Include <u>reasoning</u> to show how your evidence supports your claim.
- ✓ Use vocabulary that you have learned in science class.
- ✓ Correct grammar, punctuation, and spelling errors.

