



# CLASSROOM CONNECTIONS



Early Childhood and Lower Elementary:  
Sense Exploration with Onions and Apples  
Connections to Standards:  
**Science** 2-PS1-1  
**English Language Arts** K.SL.4, 5, 6; 1.SL.4, 5;  
2.SL.4, 5, 6

Upper Elementary: Peeling Back the Layers  
Connections to Standards:  
**English Language Arts** 3.W.1, 2, 4, 5; 4.W.2, 4,  
5; 5.W.2, 4, 5

**Lesson:**

This lesson from Oregon Agriculture in the Classroom Foundation explores how taste and smell are correlated and how sight and feel are influenced by our other senses. Lesson involves tasting both pieces of apple and onion with students blindfolded and holding their noses. With the texture being similar, without seeing the food or having the sense of smell influence taste, students will have a very difficult time determining which food is which and a discussion of the five senses can commence. After all students have had the experience, discuss the activity and then students can write and/or draw about their sense experiences both with their nose plugged and unplugged.

**Resources:**

Onion and Apple Sense Experiment  
Oregon Agriculture in the Classroom Foundation  
<http://aitc.oregonstate.edu/teachers/pdf/handson/onion.pdf>

Oregon Harvest for Schools Onion Poster and Family Newsletter

**Lesson:**

The onion is an illuminating bulb. The vegetable is used metaphorically to describe sequentially removable layers that conceal something important. That is, when we use a metaphor involving an onion - such as "peeling away another layer" - we visualize a central concept (a heart or core) that is buried beneath an organized series of increasingly central issues or arguments.

With students explore this concept by first showing students how onions peel back layer by layer to reveal the core and then provide an example of how this can guide writing about an idea or question. An example could be the question, "why should I eat fruit and vegetables?" The first, outer layer could be "because fruits and vegetables are healthy" followed by "I need healthy food so my body can be strong" and "my body can get stronger and healthier from the vitamins and minerals in the vegetables and fruits." It's a progression from a broad question to answers that provide more depth and detail. Students can then brainstorm, create and write about their own broad question and resulting "layers."

**Resources:**

Oregon Harvest for Schools Onion Poster and Family Newsletter



## Middle School: Onion Daylength Determination

Connections to Standards:

**Math** 6.NS.8; 6.SP.5; 7.SP.1; 8.SP.1

### **Lesson:**

In order to begin producing a bulb, onions must be exposed to a certain length of day. There are both short-day and long-day onions. Days with <14 hours of light are considered “short days” while days with >14 hours of light are considered “long days.” In Oregon, short-day onions are typically planted in the fall and grown overwinter to be harvested in the spring while long-day onions are planted in the spring and grown over the summer for a fall harvest.

This lesson will explore differences in onion development through the calendar year. Discuss how onion growth is stimulated by the length of day. The two timelines provided in the resource section list the different growth stages while the “Onion Growth Stage Graphics” shown visual examples of the nine different stages. Using the two timelines provided in the resource section, have students graph the different stages of onions throughout a calendar year. Using months as the x-axis and # of days growing as the y-axis, have students plot the different stages of growth on the graph using a different color for long-day and short-day points. Depending on the knowledge of the class, students may need a review of why there are seasons and different day lengths. There is a good overview of that information on the NOAA site.

### **Resources:**

Onion Growth Stage Graphics:

[http://www.onions-usa.org/img/site\\_specific/uploads/Lesson\\_1.pdf](http://www.onions-usa.org/img/site_specific/uploads/Lesson_1.pdf)

Short-Day Onion Timeline:

[http://www.onions-usa.org/img/site\\_specific/uploads/Lesson\\_1\\_Growth\\_Stage\\_Timeline\\_A.pdf](http://www.onions-usa.org/img/site_specific/uploads/Lesson_1_Growth_Stage_Timeline_A.pdf)

Long-Day Onion Timeline:

[http://www.onions-usa.org/img/site\\_specific/uploads/Lesson\\_1\\_Growth\\_Stage\\_Timeline\\_B.pdf](http://www.onions-usa.org/img/site_specific/uploads/Lesson_1_Growth_Stage_Timeline_B.pdf)

What causes seasons? Resource from NOAA:

<http://www.crh.noaa.gov/lmk/?n=seasons>

## High School: Notable Quotable Onion

Connections to Standards:

**English Language Arts** 9-10.W.3; 9-10.SL.1;  
9-10.L.1, 4, 5

### **Lesson:**

Food plays an important role in different cultures as part of traditional foods, holiday celebrations or even literature. The onion is a vegetable that has received notable mention from Shakespeare and poets to modern food icons and fiction authors. Review the different onion quotes on the resource page and discuss whether the vegetable is being expressed in a literal sense or allegorically, whether to describe pleasure or pain, etc. Have examples of real onions in class and discuss whether the different quotes accurately describe the onion and its traits. Other texts can be explored to find additional vegetable quotes and with students then writing their own vegetable quotables.

### **Resources:**

“Notable Quotable Onions”

[http://www.onions-usa.org/img/site\\_specific/uploads/Lesson\\_2\\_Notable\\_Quotable\\_Onions.pdf](http://www.onions-usa.org/img/site_specific/uploads/Lesson_2_Notable_Quotable_Onions.pdf)

