



# **BIG GREEN LESSON**

Seasonality: 6<sup>th</sup> – 8th Grade

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## **Lesson Outcomes**

In this lesson students will...

- identify cool versus warm weather crops.
- articulate that plants in the Learning Garden grow best in either warm or the cool weather.
- use information about seasonal crops to develop a list of ingredients needed for the ultimate salad.

## **Standards Alignment**

### **Next Generation Science Standards**

- MS-LS1-4. Use argument based on empirical evidence and scientific reasoning to support an explanation for how characteristic animal behaviors and specialized plant structures affect the probability of successful reproduction of animals and plant respectively.
- MS-LS1-5. Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms

### **Common Core – English Language Arts**

- SL.6.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.
- SL.6.4. Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation
- SL.7.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.
- SL.7.4. Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.
- SL.8.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly.
- SL.8.4. Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.

## Materials and Preparation

- Seasonality and The Plant Lifecycle worksheets, 1 per student or group
- Online access
- Blank white paper
- Review lesson and familiarize yourself with your Learning Garden
- Optional: supplies for additional Learning Garden activities

## Teacher Background

In gardening, we plant during two main growing seasons: warm and cool. The warm and cool weather growing seasons provide a time for you to grow different types of crops in your Learning Garden. Each region of the country will have their own parameters on what months of the year are considered cool or warm weather growing seasons. Many regions will have a winter season with cold temperatures and snow where crops cannot grow outside in your Learning Garden without additional protection, however, in some regions you can grow year-round!

Growing crops in the appropriate season means they will taste better and grow bigger because they are receiving adequate warmth and sunlight. In addition, purchasing produce from your local grocery store while they are in season will ensure you are receiving the freshest and tastiest produce!

Review USDA's Seasonal Produce Guide for more general information:  
<https://snaped.fns.usda.gov/nutrition-through-seasons/seasonal-produce>

## Introduction

Spend time discussing the following introductory questions:

- What effect does temperature have on growing plants?
- Do plants have an optimal temperature for growing?
- What season are we in, and what plants do we see growing?

## Activity

1. Welcome your students to the Learning Garden and line students up along one side. Stand on the opposite side of the Learning Garden so you can address the entire group.
2. Ask students if they know what they will be doing in the Learning Garden for the day's lesson. Let them know they will be learning about warm weather plants and cool weather plants!
3. Invite students to explore the Learning Garden, in groups or individually, and to look for plants they can identify. While students are exploring the Learning Garden ask them to record the plants they can identify and to notate what lifecycle stage the plant is in. Students can use the Plant Lifecycle worksheet as a reference point.
4. Give students 10 minutes to explore the garden. Once finished, bring students back together and review their findings. Discuss with students that a crop lifecycle is a good indicator of the growing season. For example:

If the fall cool season is just starting, your Learning Garden should be full of warm weather crops that are at the end of their lifecycle and/or cool weather crops that are just starting their lifecycle!

If your spring cool season is underway, your Learning Garden should be full of cool weather crops that are in the middle of their lifecycle.

5. Return to the classroom and let students know they will now be using their warm and cool weather crop knowledge to complete the Warm and Cool Weather Recipe Challenge!
6. Students will design a cool weather and a warm weather recipe that uses as many crops as possible! Based on the knowledge they just learned students will now be asked to create their ultimate salad!
7. Pass out blank paper to each group and allow the students time to research possible recipes. Students should use the following websites for recipe inspiration:  
Seasonal Crop Guide: <https://snaped.fns.usda.gov/nutrition-through-seasons/seasonal-produce>  
Recipe Support: <http://www.whatscooking.fns.usda.gov/search/solr-results>
8. Give students or student groups 20 minutes to complete their Warm and Cool Weather Recipe Challenge!
9. Have students or student groups prepare a short peer to peer or classroom presentation.
10. Consider creative ways your students can display their work.

## Conclusion

Have students share key parts of the day's activity and review the Lesson Outcomes. Students should clean-up the Learning Garden as needed.

## Additional Learning Garden Activities

Extend your Learning Garden experience and have your students participate in any of the following Learning Garden activities as appropriate: planting, watering, weeding, and harvesting.

