

## Marshall University Sustainability Department

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# Buying Local

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## OBJECTIVES

Students will research the buying local movement.



## LESSON PARAMETERS

1. **Key Terms** - locally grown, nutritional value, carbon footprint, food miles
2. **Group Size** - groups of 3 to 5 students; applicable for a class ranging from 3 to 30 students
3. **Grade Levels** - 3<sup>rd</sup>- 9<sup>th</sup>
4. **Duration** - one 45 minute session
5. **Setting** - indoors
6. **Disciplines** - Science, Biology, Environmental Education, Technology
7. **Learning Techniques** -
  - a. Discussion
  - b. Group-based Collaboration
  - c. Interdisciplinary
  - d. Activity-based
  - e. Real-world application
  - f. Critical Thinking

## GREEN CONNECTIONS

- **Connections to Home and Community** - Students research locally grown foods and grocery stores in the community.
- **Sustainable Perspectives** -
  - The Local Movement
  - Seasonal buying
  - Organic

## LESSON SUMMARY

The students will participate in the activating strategy. Upon completion of their sorting, the instructor will critique their order and reveal the food to be eggs. Alternatively each group could have a different food. It is best to place the food on one side of the notecard and the location of origin on the back, i.e. blueberries from Chile. Then the instructor will transition into asking the first four discussion questions. As the students discuss as a whole class, they will (hopefully) bring up the Wild Ramp of Huntington. Then the instructor will pull up the Wild Ramp's website (<http://wildramp.org/>) on the projector. As a class, they will browse the website to better answer the discussion questions. They should be sure to visit "Why Local?" and "Who We Are" under the "About Us" tab.

To deepen student understanding of the significance of the locally grown movement, the class will split into three groups to do further research. Each group will be assigned a "Local" topic to research online then present to the rest of the class. This will allow each group to become "experts" on their topic so they can share their information with the rest of the class.

## ACTIVATING STRATEGY

To begin the lesson, the instructor will ask for eight volunteers to step to the front of the class. They will each receive one notecard labeled; collecting, washing, grading, sorting, packaging, shipping, selling, enjoying. These volunteers, as well as the rest of the class will be challenged to sort these verbs in the correct order that a certain food gets from a farm to the table. As the students are sorting, they must also hypothesize what food this progression concerns.

## LESSON DEVELOPMENT

**Exploration Lesson** - Students conduct research to actively explore the concept of the local movement.

**Explanation Lesson** - Through class discussion and group research, students will gather information about the local movement.

## LESSON ADDITIONS

If time allows, the students may use the computers to calculate their own carbon footprints, determined by the amount of energy they use on a daily basis through this online simulation: "Footprint Calculator" ([www.footprintcalculator.org/](http://www.footprintcalculator.org/)). If the internet is down, students may conduct their research from paper copies of the resources.

## DISCUSSION QUESTIONS

- Locally and Seasonally Grown
  - What can we grow locally?
  - How best can we eat seasonally?
  - Suggested resources:
    - The Wild Ramp: What We Offer (<http://wildramp.org/what-we-offer/>)
- Local Produce vs. Grocery Store Produce
  - How do the prices of local produce compare to store-bought produce?
  - What percent of the produce profit goes to the farmer at local stores and chain stores?
  - How does the nutritional value differ?
  - Suggested resources:
    - Nutritional Merits of Home Grown Vs. Store Bought Produce (<http://www.aerogardenblog.com/wp-content/uploads/2012/10/White-Paper.pdf>)
    - Are Your Vegetables Nutritionally Impotent? (<http://www.thesweetbeet.com/vegetables-nutrients/>)

- Food Miles
  - What are “food miles”?
  - What is the carbon footprint of a blueberry from Chile?
  - Suggested resources
    - Food miles: How far your food travels has serious consequences for your health and the climate (<https://food-hub.org/files/resources/Food%20Miles.pdf>)
    - Nutritional Merits of Home Grown Vs. Store Bought Produce (<http://www.aerogardenblog.com/wp-content/uploads/2012/10/White-Paper.pdf> )

## MATERIALS

### Physical Materials

- Eight notecards
- At least three computers/laptops/tablets
- Internet access
- Copies of resources (available in PDF form) if internet access is not available
- A projector

## RATIONALES

- Next Generation Science Standards:
  - **K-ESS3-3** - Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.
  - **HS-ESS3-4** - Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.
  - **MS-ESS3-3** - Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.