

# Grow it Anywhere!

## Eco-Schools Topic:

Healthy Living,  
School Grounds  
Healthy Schools  
Sustainable Food

## Standards:

SCIENCE Standards Grade 2: Life Processes  
HEALTH standards Grade 3

## Guiding Question:

How and where can you grow food?

## Key Questions, Attitudes, and Behaviors to teach:

- Name a food that is grown in the fall in Virginia (K)
- It is important to me to buy food from local farmers (A)
- I grow some of my food at home (B)

## Lesson Objectives:

Students will...

- understand how to grow their own food
- identify local foods and food options
- envision their own sustainable garden

## Grade Level:

Grades K-8

## Format:

Rotation, 3 activities, 10-15 min each

## Materials:

- Mapping Food
  - Each food item (local apple, banana, corn) or picture of it
  - A show box/cover for each
  - A few World Map
  - Thumb tacks and string (optional)
- Grow it Anywhere
  - Bin of soil (enough for each student)
  - Cups to scoop soil
  - seeds
  - Newspaper
  - Scissors
  - Sharpies
  - Tape
  - Paper and markers
- Plan your local food garden
  - Seasonality Chart
  - White Paper



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- markers
- seed catalogs/ food magazines (optional)

#### Prep:

- Ask teachers what the best location is to do this activity knowing that there will be a mess (with soil)
- Prepare 3 mystery boxes (**refer to picture above**)
  - Gather corn (2), apple (2) and banana (2) (preferably real but pictures work)
  - Gather 3 small cardboard boxes/bags
  - Put one of each food item under the boxes (box 1- corn, box 2-apple, box 3-banana)
  - Label boxes with corresponding country/state (use location where food is most commonly grown)
    - Corn-Iowa
    - Apple- Washington State
    - Banana-Costa Rica
- Prepare planting materials
  - Gather at least one carton per person (strawberry/berry cartons or cartons with hole already in them are suggested but you can also use plastic milk cartons-just make sure to drill holes in the bottom)
  - If using milk cartons, draw an outline of which area they need to cut and start the cutting for them-we recommend using a pocket knife
  - BACK UP: newspaper pots  
<http://www.instructables.com/id/How-to-make-organic-planting-pots-using-old-newspaper/>
  - Punch holes into bottom of containers. Have dirt, compost, seeds and shovel ready

#### Engaging Intro

- Ask in small groups: Where do you get your food? (beyond *supermarket*): See what they remember from last week

#### Exploratory Activity ROTATIONS:

- **ROTATION 1: Mapping Food**
  - Let's go a step further, where do you think these (point to 3 foods) are grown?
  - Have kids turn to neighbor and discuss where they think it is grown
    - tell students the 3 possible locations that the foods are from (shows closed boxes)
    - with these new clues have students write down which food item matches which location
    - have one student lift up each of the boxes to reveal which food is under each box
  - Instructors pull out map and have students find the countries where the foods are from using tacks as markers
    - Ask how the foods from different countries got here (*airplane/ship/truck*)
    - Ask what are some negative effects to the transportations (*using more gas pollution*)



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- Costa Rica - 4,000 miles (aprox.)
    - Iowa- 1,000 miles (aprox.)
    - Washington State- 2,500 miles (aprox.)
  - Ask which of these foods could be grown locally
    - Corn and apple could be grown locally
    - Bananas cannot because we do not have the right conditions for banana plantations.
      - Banana trees need dark, fertile soils, high humidity in the air and ground, and good drainage. They thrive in areas where the average temperature is 80 F and there is a lot of rainfall.
  - Ask how the locally grown foods got here (*car/truck*)
  - Ask what are the pluses and minuses of getting foods from farther distances
  - Ask how we can get local foods (*farmers market/grow it*)
  - *Optional: Get students into groups of 5 and have a competition to see which groups can identify the most foods that can be grown locally*
- **ROTATION 2: Planting Seeds**
    - Give each student a container
    - Have students write their names and date onto their containers
    - Hold up recycled container and ask students what this could be used for.
      - Suggest growing food
    - Have each student look at the bottom of the container at the drainage holes and discuss why this is necessary (*for water drainage*)
    - For milk cartons, instructors would have already started the cut and students need to continue to cut along the black line that indicates the opening for their plant (for younger kids do cutting for them)
    - Have instructor go around the room with the bin of soil and give each student enough (do not let students take the soil out of the bin by themselves)
      - You can fill up the cup with soil and give it to the student to fill up their container
    - Have students observe what is in the soil (*worms, compost, small rocks*) and talk about the role of the worms (to break down food to make soil—good soil is just worm poop!)
    - Have students use their pinky fingers to make indents in the soil for the seeds
    - Instructors go around and give the students 3-4 seeds (depending on the package) to sprinkle in their containers
    - Give each student a piece of newspaper to tape to the bottom of their containers so that soil does not spill out of the holes
    - Look at seed package and discuss when students can expect to see growth and harvest
    - **Extension:** If time permits, have students draw on paper what they want their plant to look like and they can tape it onto the container
  - **ROTATION 3: Plan your own seasonal garden**
    - Show students the [seasonality chart](#) (link below)
    - Let students pick a season and create their own garden
    - They can draw fruits/vegetables or cut them out from magazines
    - Have students share
    - *Additional: Older students can use the companion planting guide below*



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Leave time for clean up!

### Meaningful Discussion

- Tell students that they need to water their plants ONCE THEY GET HOME
- Talk about expectations for the future of the plant (when should it start sprouting etc), and what students should be doing next
- Offer options of what you can plant inside
- Offer follow up instruction of what to do with plant in their house
- Why is growing locally a good option?

### Links and Resources

- Gardening in a shoe ex:  
<http://homeguides.sfgate.com/make-flower-planters-pots-old-shoes-37222.html>
- Self- Watering <http://www.brooklynseedcompany.com/how-to-make-a-plastic-bottle-sip/>
- More fun facts: apples grow best in climates with warm days and cool nights. Washington State is top producer but apples grow in 36 states.
- Seasonality Chart  
[https://osse.dc.gov/sites/default/files/dc/sites/osse/service\\_content/attachments/DCF2S%20seasonality%20chart%202013-web.pdf](https://osse.dc.gov/sites/default/files/dc/sites/osse/service_content/attachments/DCF2S%20seasonality%20chart%202013-web.pdf)

One year, fruits and vegetables taste great just after they're picked, but they only grow in certain seasons. Choose food from nearby farms that's "in season" in your meals and snacks!



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