

Food Day: Lesson Plan

Compiled by Jim Fortner, Mari Jackson, Ken Riedel, and Laurelyn Sandkamp (Spring 2014)

Preparation:

1. Make sure you have all of your materials on hand (Materials List)
2. Put Grow Wagon, potting soil, trays, and salad green seeds at one table.
3. Fill seed trays with potting soil.
4. Put romaine lettuce, bok choy, and celery at second table with plastic containers and water
5. Cover a third table with a tablecloth, and vegetables and cards for “Seed to Harvest” activity.

1. Introduction (10 minutes):

“Hi, my name is (leader 1) and this is (leader 2) , and this is _____, _____, _____.
We are your Eco Team Leaders! Eco Teams is a fun investigation group that explores environmental issues facing everyone on the planet. We believe that kids have creative and helpful ideas for coming up with ways to live more sustainably and to help solve some of these issues; and that is why we are called an ECO TEAM. Together, we will be investigating issues and coming up with ways to be more earth-friendly. And, our mascot that helps get all this done is the earthworm, because earthworms are hard workers, turning the dirt under our feet into rich compost to grow plants in.”

Today we will be investigating **food!** Let’s start out with some questions. Raise your hand if you would like to answer. *(Take two or three answers for each question).*

- (a) What is one thing that you know how to make all by yourself?
- (b) Is there a recipe your family makes that has been passed down from your grandma/grandpa?
- (c) Have you been to the farmers market? Have you been to a farm? Have you been in a garden?
- (d) How is that food different from the food at the grocery store?

2. Planting Salad Greens in Wagon/Regrowing Salad Greens (20 minutes):

Divide the children and volunteers into two groups. Half go to the grow wagon table and half go to another table to root salad greens and celery in water.

- a. Planting Salad Greens: Refer to Appendix A, “Grow Your Own Salads Indoors All Winter.”
- b. Rooting Salad Greens & Herbs: Refer to Appendix B, “Regrowing Salad Greens and Herbs.”



3. Vegetable ‘Seed to Harvest’ Activity (15 minutes):

(Purpose of this activity: Get kids engaged in fun, tactile activity with food. Familiarize kids with different vegetables. Teach kids about connection between seed and plant and food.)

Bring all children back together to be seated. Explain that now all the kids get to pretend they are farmers. They have prepared their soil, planted their seeds, weeded and watered, and are now ready to harvest.

Pass out vegetable cards to all kids (make sure you have enough for everyone!). Explain what they mean- each card has a vegetable to match out in the ‘field’. In groups of 3-5 have kids ‘harvest’ their vegetable and bring it back to their seat to look at; help kids who need assistance identifying their vegetable.

When everyone is back sitting and talking about what they found, start throwing out some questions.

- We’re going to go around the room. When it’s your turn, hold up your card and crop and tell us what the name is. *(Go around the room).*
- On the back of your card, there is a label telling you what part of the plant your special crop is. Look at your card. Do you have the leaves, the root, or the fruit? Now, without talking, find all of the other kids in this room that have the same plant part as you.
- Once the groups are formed:
 - If you have a green leafy vegetable, hold it up. Each person will take turns and tell us what leaves we have. *(Talk about how leaves capture sunlight to create food for the growing plant.)*
 - If you have a root, hold it up. Each person will take turns and tell us what roots we have. *(Talk about how a plant’s roots absorb and store nutrients from the soil.)*
 - If you have a fruit, hold it up. Each person will take turns and tell us what fruits we have. *(Talk about how a fruit’s purpose is to store seeds and attract animals who will eat the fruit. When an animal eats the fruit, the seeds pass through the digestive system, scattering the seeds. Almost any plant part containing seeds is considered a fruit... even though we might think of it as a vegetable!)*
- Now, each of you also has another label on your card. This label tells us what family your crop is a part of. Just like people have families, plants also have families. Different crops are members of different families. Is your crop in the Mustard family? How about the Carrot family? Amaranth Family? Nightshade family? Onion family? Sunflower family? The Gourd family? How about the Legume family? Now, without talking, just like before, find your plant “families.”
 - *Go through the plant families just like you went through the plant parts. Emphasize how plants in the same family are like siblings in the same family - even though they might not look very much alike! Sometimes you can tell if plants are in the same family by looking at their seeds. Ask kids to compare their seeds with other seeds in their “family.”*
- Finally, “Who has a jar of something?” *(Talk about the season for tomatoes and cucumbers and how we preserve foods to have during the winter.)* Have any of you canned or frozen vegetables?



(The main thing here is to marvel at the wonder of how food grows, celebrate all the different kinds of foods we have, and acknowledge there are different foods for different seasons.)

Collect all the cards and vegetables. Announce that it's snack time! Pass around samples of some of the crops (sliced very thin ahead of time, so it is easier to try out). It's absolutely amazing how willing the kids were to try all of them. Praise their willingness to try them out, but no problem if they don't.

4. Handout/Discussion (10 minutes)

While snacks are being passed out, also pass out handout ("Nine Things You Can Do Today"). Ask children to read out loud, one by one. Why is each one important?

Before the kids leave, give them a copy of the Waste Unit's "Challenge: It's in the Bag" handout (refer to example below). Explain the handout and ask the kids to complete it and bring it for next week's activities.

Challenge: It's in the Bag!

How many bags (paper and plastic) does your family bring home from ALL stores in a week?

How it works:

- 1. If there are days you don't bring home any bags, record a "0" for those days.**
- 2. If your groceries are double-bagged, count both bags.**
- 3. Be sure to count every bag (small and large, paper and plastic).**
- 4. Don't count any paper or plastic bags that your family re-used.**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total



Appendix A: “Grow Your Own Salads Indoors All Winter!”

You have all seen salad greens like lettuce and spinach in the grocery store, in school lunch, and at your dinner table. But did you know you can grow lettuce and spinach indoors in the winter? All you need are some seeds, potting soil, and a couple of inexpensive fluorescent shop lights.

You can hang the lights anywhere - in an attic, basement, or even a large closet. As long as the space can maintain average temperatures around 50 and has an electrical outlet for the lights, you can grow delicious, nutritious greens.

What can you plant?

The simple answer: almost any type of salad or cooking greens—the faster-growing the better—and leafy herbs. Today we are going to grow lettuce and spinach. [Pass around one seed packet of each.]

The seeds we plant today will go in this wagon. The lights up here [point to the lights] will help the salad greens grow. In a few weeks they will be ready for us to eat!

These seed trays are filled with potting soil. Our job is to scatter the seeds thickly across the soil surface. [Have the children do this, carefully supervised by adult volunteers.]

Next we will cover the seeds with a very light layer of potting soil. [Have the children do this.]

Last, we will place the seed trays in the wagon and give them a big drink of water. [Choose two children to help water the seeds.] That’s all we need to do to get started!

Care and harvest: How do we take care of these new baby plants?



Ask: What do plants need to be healthy? Ask children to respond.

- **Light:** Show the children the automatic timer. This timer will be set to automatically give the plants sixteen hours of light each day.
 - **Water:** These plants will need to be watered every couple of days, when the top of the planting medium feels dry. A Boys & Girls Club staff member will help with this, which is very nice!
 - **Nutrients:** All the nutrients the plants need are in the potting soil!
-

Sources: <http://www.almanac.com/blog/natural-health-home-tips/grow-your-own-salads-indoors-all-winter>
<http://www.almanac.com/plant/lettuce>
<http://www.almanac.com/plant/spinach>



Appendix B: “Regrowing Salad Greens and Herbs”

You have all seen lettuce in the grocery store, in school lunch, and at your dinner table. But did you know you can use your scraps to grow even more? Some foods are easy to regrow at home from leftover scraps, and some of them can even be grown right on your kitchen counter. All you need are scraps, some plastic containers, and water.

We will also experiment with regrowing celery and bok choy, an Asian vegetable.

Steps: Children will place each stump in a plastic container with about ½ inch of water.



Romaine Lettuce



Bok Choy



Celery

When finished, the children should make labels for the containers with masking tape and markers. Encourage creative and colorful labels!

While making labels, ask the children: “How do you think this works?”

- When you put the end of the lettuce, bok choy, or celery in water, it sends a signal to the plant. That signal tells the plant to start growing roots - right in the water! When the roots are long enough, it is time to move the plant out of the water and into a small pot of soil. The soil will give the plant what it needs to keep growing. Did you know lettuce is about 95% water?

Time permitting... “Plant Parts We Eat” Worksheet (Appendix 3)

Notes:

All finished containers will go on a windowsill or other sunny spot.

Additional maintenance:

- Change the water every couple of days.
- Bok Choy and Celery: In a week or two, transplant to a pot with soil.

Sources:

<http://food-hacks.wonderhowto.com/how-to/10-vegetables-herbs-you-can-eat-once-and-regrow-forever-0150343/>

Images via Matt Frederick/Wikimedia Commons, Faith Durand, Farm Flavor, Green Jean, Gardening Jones



Appendix C: "Plant Parts We Eat"

What part of the plant do we eat?

Word Bank:

Roots

Fruits

Stems

Leaves

Seeds

Flowers

Words may be used more than once or not at all.



asparagus



beet



carrots



cucumber



cauliflower



corn



spinach



eggplant



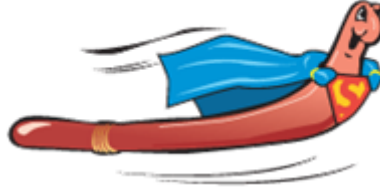
cabbage

Source: Oklahoma Ag in the Classroom, <http://oklahoma4h.okstate.edu/aite/lessons/primary/parts.pdf>



Printed on paper made with 30% recycled fiber

2014 “Earthworms” Youth Eco-Teams Program



Thank you for participating in the Food Unit!

Next week we will investigate Waste and Recycling!

Grow Your Own Salads Indoors All Winter!



I successfully grow salad greens all winter long in recycled plastic containers under a couple of inexpensive fluorescent shop lights. You can, too!

You can hang your lights in an attic, basement, or even a large closet. As long as the space can maintain average temperatures around 50 and has an electrical outlet for the lights, you can grow delicious, nutritious greens.

What can you plant?

The simple answer: almost any type of salad or cooking greens—the faster-growing the better—and leafy herbs. I scattered the seeds thickly across the soil surface, covered them with a bit of compost, and watered them in well with a small watering can.

Care and harvest

I turned the lights on when I got up each morning and shut them off around supper time. I watered them every couple of days, when the top of the planting medium felt dry.

I started thinning the plants as soon as they'd developed two or three sets of leaves, gently pulling them out by the roots, rinsing them, and tossing them into soups and cabbage salads.

As the plants grew bigger, I harvested the outer leaves and left the rest to grow. You can also clip greens from across the whole container with fingernail scissors, making sure to leave the growing tips to produce another crop.

After five weeks of growth, six or eight containers of greens began producing robust, two-person salads three or four times a week for about six weeks, as well as quite a few handfuls of greens to toss into soups.

Today in Youth Eco-Teams, we planted lettuce and spinach seeds together under fluorescent lights. At the end of the program we will be able to make a salad!

Source: <http://www.almanac.com/blog/natural-health-home-tips/grow-your-own-salads-indoors-all-winter>



5 Vegetables & Herbs You Can Eat Once and Re-grow Again

Some foods are easy to re-grow at home from leftover scraps, and some of them can even be grown right on your kitchen counter. Here are 10 vegetables and herbs you can buy once and re-grow again. Today in Youth Eco-Teams, we experimented with romaine lettuce, bok choy, and celery!



#1. Garlic

When garlic starts to sprout, the little green shoots are too bitter to cook with. Rather than throwing away sprouted cloves, you can put them in a glass with a little water and grow garlic sprouts. The sprouts have a much milder flavor than garlic cloves and are great in salads, pasta and as a garnish.

#2. Romaine Lettuce

If you have a stem from a head of romaine lettuce that's still intact, place the stump in a bowl with about 1/2 inch of water and put it on a windowsill. You'll start to see new leaves in about 2 weeks, and they'll be full grown in 3 to 4.



#3. Bok Choy

Just like romaine lettuce, bok choy can be regrown by placing the root end in water in a well-lit area. In a week or two, you can transplant it to a pot with soil and grow a full new head.

#4. Onions

Plant the discarded root end from an onion in a pot or directly in the soil outside to regrow. You can harvest it early and get fresh green onions or wait until the bulb is fully developed.



#5. Mushrooms

Plant mushroom stalks in soil with some compost or used coffee grounds and keep them in a moist environment, preferably where it will be cool at night. They can be tricky to grow, and within a few days the stems will either start to sprout new heads or rot.

Source: <http://food-hacks.wonderhowto.com/how-to/10-vegetables-herbs-you-can-eat-once-and-regrow-forever-0150343/>



TAKE ACTION!

Nine things YOU can do today

1. Cook-In! and have a meal at home.

2. Grow Something to eat!
Plant vegetables, fruit, or herbs in a window box, pot, backyard or community garden. Start with easy things, like basil and tomatoes.

4. Meet someone who grows the food you eat.
Run, don't walk to the nearest farmers market and talk to the farmers. Visit their farms. Help them plant and harvest!

3. Find out where the food in your grocery store comes from.
Ask the butcher where the meat comes from. Ask the manager if any fruits or vegetables come from local farms. See if they'll get more food from nearby farms. If not, switch stores!

5. Ask the people who work in your school's lunchroom where the food they serve comes from. See if your class can tour the kitchen. Does most of the food come frozen? Is there a stove? Work with the kitchen staff to improve the school's food.

6. Walk or ride your bike to school, instead of taking a car or bus.

7. Get movin' after school and on the weekends!
Play frisbee, go rollerblading, jump on a trampoline, turn up your music and dance, play Wii sports, practice cartwheels, challenge your friends to an arm wrestling competition. OR ANYTHING ELSE YOU CAN THINK OF!

8. Vote with your dollar.

You may be too young to vote for president, but you can vote for the kind of world you want to live in every time you spend money. Instead of buying candy or soda from big companies, go to your local bakery or buy from a local farmer.

9. Contact your representatives and tell them to support school nutrition programs.
To learn about current current legislation go to <http://www.farmtoschool.org/>

Stay current with food justice! Read our blog at: www.whatsonyourplateproject.org/blog

7



Have You Heard of Meatless Monday? <http://www.meatlessmonday.com>

Quick Quesadillas: Sample recipe from [meatlessmonday.com](http://www.meatlessmonday.com) to try at home!

Makes 8 servings

Quick quesadillas make a great weeknight dinner. Top with your favorite salsa and serve alongside a green salad.

Ingredients:

15 oz can black beans, drained and rinsed
2 zucchini
1 teaspoon salt
8 oz shredded reduced-fat Monterey Jack cheese
16 (6-inch) flour tortillas
2 scallions, thinly sliced
Nonstick olive oil spray

Spices:

1 teaspoon chili powder
1 teaspoon ground cumin
1 teaspoon garlic powder
1 teaspoon onion powder

Drain and rinse the canned beans. Put in a large mixing bowl. Grate the zucchini. Toss the grated zucchini with a teaspoon of salt in a colander, then squeeze out excess water. Combine the zucchini with the beans, spices, grated cheese, and scallions. Spritz one side of each tortilla with olive oil spray. Place eight tortillas oil-side down on a baking sheet. Spread some filling on each tortilla then top with another tortilla (oil-side up). Broil 1-2 minutes (until golden) and flip. Broil the flip side another 1-2 minutes.

Why Meatless?

- Going meatless once a week may reduce your risk of chronic preventable conditions like cancer, cardiovascular disease, diabetes and obesity. It can also help reduce your carbon footprint and save precious resources like fresh water and fossil fuel.

Another Family Recipe: Apple-Carrot-Raisin Salad

Serves 6 to 8 as a salad, snack or dessert

You will need:

2 or 3 apples diced
2 or 3 carrots grated
1 can pineapple, chunks or crushed with juice
1/2 - 1 cup raisins
1/2 cup nuts or sunflower seeds (optional)

Dressing: (optional)

1/4 cup mayonnaise
1/4 cup yogurt
pinch of cinnamon
a little honey if you like



Directions: Mix all ingredients in a bowl and chill in the refrigerator. Combine all dressing ingredients in a small bowl or cup. Add dressing to salad and mix well to coat. Enjoy!

