

Kitchen Scrap Gardening

Grades: K - 8

Time: 30 min. prep; must wait for plants to grow

Lesson summary:

Your students can grow vegetables and herbs from items you'd normally throw in your compost bucket. With little effort and a pinch of creativity you can devise some very imaginative indoor gardens from your kitchen leftovers! Kids love this idea and it's a great way to reinforce the sustainable living concepts of recycling and reusing.

What's the big idea? ??

- Is it possible to regrow food from our food scraps?
- How can we reduce waste in our school/home?
- Is it possible to grow vegetables and herbs indoors without using seeds?

Outcomes or purpose:

- Students will recognize what they can do at home to create an indoor garden
- Students will learn that kitchen scraps are living plants and will continue to grow
- Students will identify that this is another way to reduce food waste in at home
- Students will learn the steps needed to grow kitchen scraps as edible food

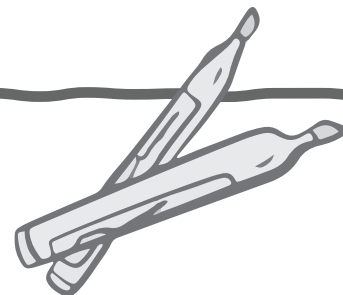
Teacher background:

Please use the attached growing instructions for vegetables and herbs.

Kitchen Scrap Gardening

Materials needed:

- Kitchen vegetable scraps
(depending what you have available)
 - Romaine lettuce and/or celery
 - Green onions and/or leeks
 - Carrots and/or beets
 - Herbs (basil, mint, oregano, thyme)
 - Garlic bulb
- Knife
- Cutting board
- Scissors
- Small plastic plant containers about 7 - 10 cm high (or recycled paper cups with a drainage hole in the bottom)
- Potting soil (soilless medium)
- Bottle or jar (for plant cuttings)
- Water



Step by step instructions: Set-up (Best if started a week before the lesson.)

1.

Start one vegetable to start for your students as an example.

2.

Start one herb to begin as a plant cutting to show students.

Step by step instructions: Lesson

1.

Gather students to discuss the vegetables they have in their home.

2.

Ask students to talk about what happens to the scraps of the vegetable we don't eat and are usually thrown out. Discuss compost and what we can do with our vegetable scraps instead of throwing them in the garbage.

3.

Show students the plant or plants you started either in the soil or as plant cuttings.

4.

Discuss the steps students need to follow to re-plant or root their kitchen scraps. Use the instructions provided.

5.

Have each student pick a kitchen scrap to plant. Work with them when needed to plant their vegetable scrap.

6.

Have each student prepare an herb cutting to root in water.

7.

After everything is planted, discuss the care needs of their kitchen scrap garden.

8.

Have students check plants in containers everyday and water as needed. For the rooted cuttings, change the water every few days or top up with water if it has evaporated.

9.

Once the herbs in water have grown roots, plant them in a container. Be sure to label the container.

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Discussion questions

- What vegetables or herbs did you grow in your kitchen scrap garden?
- Draw a picture of your kitchen scrap garden.
- Discuss how for each vegetable there were different planting instructions. Why might this be?
- Write down or draw the steps you took to create your kitchen scrap garden.
- Think of different ways of eating these vegetables when they are fully grown.

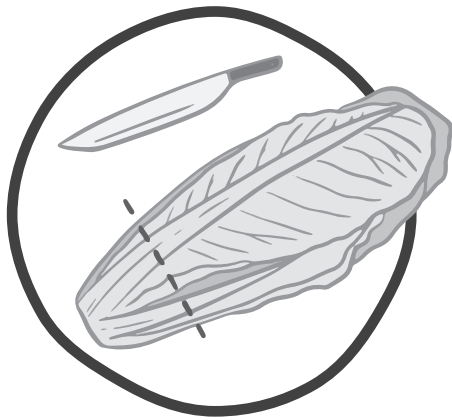
Expand the learning:

- Depending on what you planted, create a dish with the vegetables from your kitchen scrap garden. You can use them in salad or make celery snacks (ants on a log or cheese on celery). Snip some of the rooted and potted herbs to smell and taste.

Kitchen Scrap Gardening: Romaine Lettuce & Celery

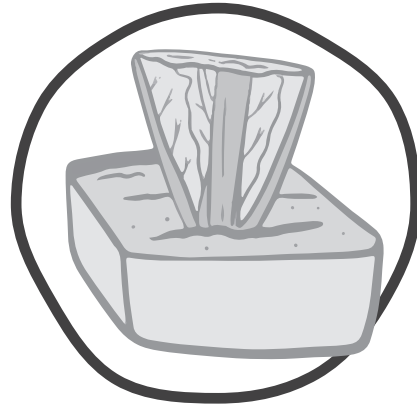
Activity Sheet Summary:

Here is an easy way to grow fresh leaves of lettuce (romaine works best) or small stalks of celery from the root end of store bought vegetables. The method is the same for both of these vegetables.



1.

Cut a 3 cm portion from the bottom of a romaine lettuce or bunch of celery.



2.

Place the flat root end down and press into moist soil in a container so that just the top cut end shows.



3.

Keep the plants watered and watch for new small leaves in a couple of weeks. Here are some baby romaine lettuce leaves.



4.

Celery grows tall with leaves at the top. Did you know that the leaves taste good too?

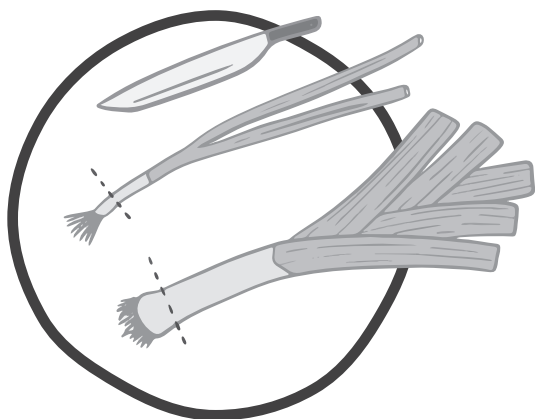
Harvesting:

To harvest baby lettuce or celery, cut off leaves or stalks with a knife or scissors and enjoy. Use the lettuce in a salad or sandwich. Baby celery is nice with a dip or use the celery to make ants on a log.

Kitchen Scrap Gardening: Green Onions & Leeks

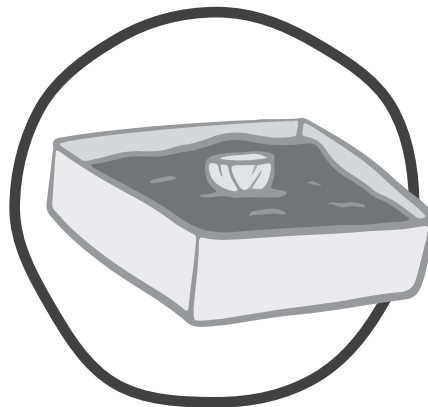
Activity Sheet Summary:

Green onions and leeks are relatives in the plant world. Both of these will grow shoots from cuttings which can be eaten and enjoyed.



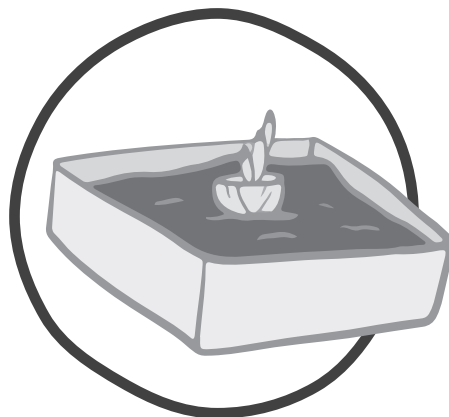
1.

Cut a 2 cm portion off the root end of green onions. Do the same for leeks. Notice how much bigger the leeks are compared with the green onions?



2.

To plant your green onions and leeks in a container of soil, poke a hole in the soil with the tip of your finger. Place the cut end into the hole, with the roots going in first. Gently firm the soil around the plant. Don't forget to give them some water!



3.

In a week or two, you'll see shoots growing.

Harvesting:

Once they are 10 cm tall, begin harvesting the shoots by snipping them off with scissors. Compare how the two plants taste. Which one tastes stronger? Snips of green onions or leeks can be chopped up and added to salads. You can also use them to flavour scrambled eggs.

Kitchen Scrap Gardening: Herbs from Cuttings

Activity Sheet Summary:

Basil, mint and lemon balm are the easiest herbs to root in water. Let's see how to do this with basil. The method is the same for the other herbs.



1.

Cut off a 10 to 15 cm long shoot of basil using scissors.



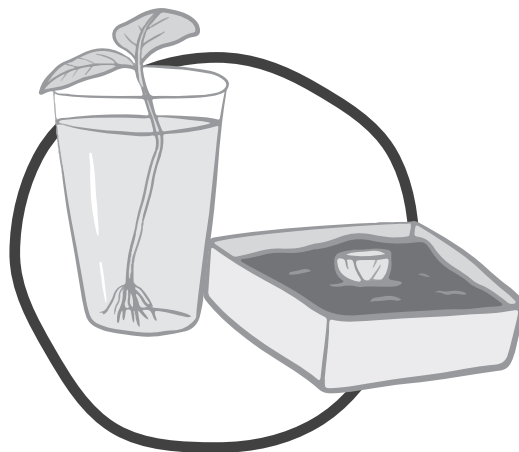
2.

Next, remove the side shoots. You can pinch these off using your fingers or cut them off with scissors.



3.

Place the cutting in a glass of water and wait to see what happens.



4.

In time you will see new roots! Once the roots are 3 - 5cm long, it's time to plant them into a container.

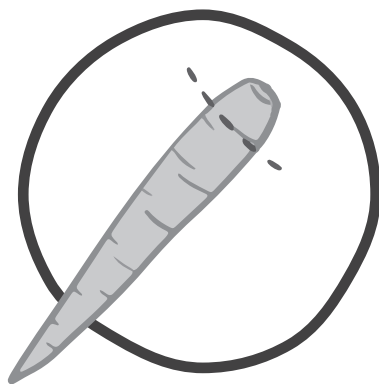
Harvesting:

Allow the plant to grow for a week or two before harvesting leaves. Basil can be used in salads or pasta. Mint and lemon balm leaves can be dried and used to make tea.

Kitchen Scrap Gardening: Carrots & Beets

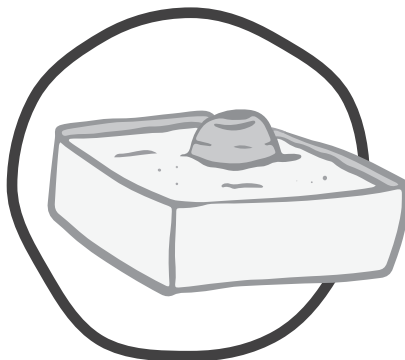
Activity Sheet Summary:

Use this method to regrow the tops of carrots or beets. The plants won't produce more carrot or beet roots, but you can harvest and eat the tops.



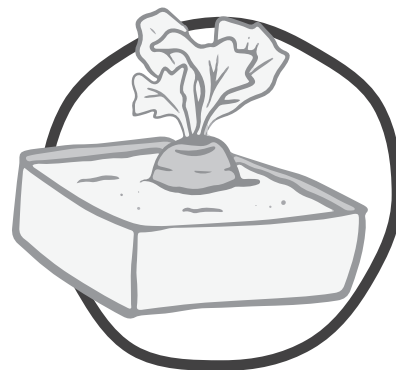
1.

Cut a 2 cm piece from the top of a carrot.



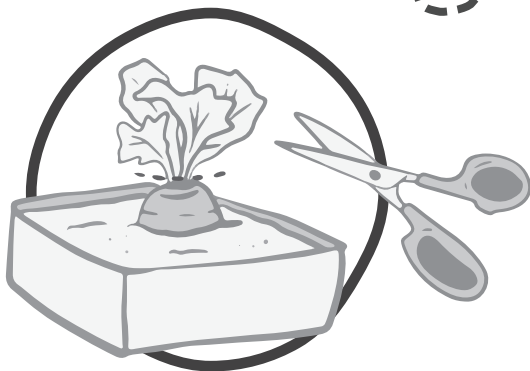
2.

Place the cut end down in a container of soil, leaving the very top exposed.



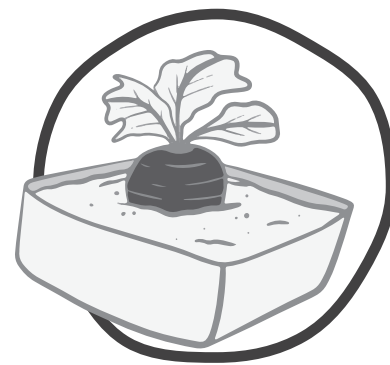
3.

Place the container in a sunny window and water as needed. After a few weeks, the carrots will start to grow leaves.



4.

Harvest the carrot shoots with scissors for pesto or to add to a salad.



5.

Beet tops can be grown and harvested the same as carrots. They are good in a salad or added to a stir fry.

Kitchen Scrap Gardening: Garlic

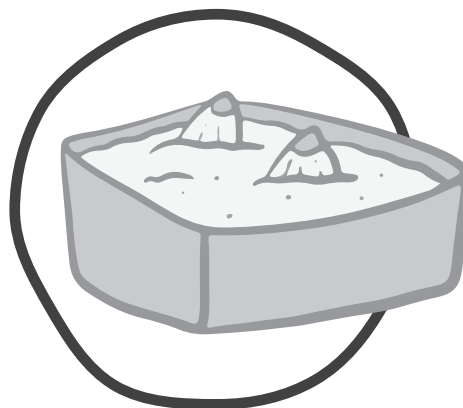
Activity Sheet Summary:

Most people buy garlic bulbs at the grocery store to use in cooking. Garlic bulbs can be separated into smaller pieces called cloves and planted in a container. It can take 9 months to grow large bulbs. The best way to enjoy this kitchen scrap is to harvest the shoots which taste just like garlic. Eat them raw if you like the taste or add them to a stir-fry, soups or stews.



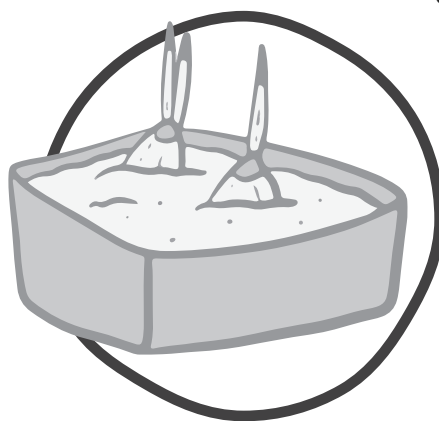
1.

Take a whole clove of garlic. Remove the outer skin and separate the garlic into individual cloves. Only use the biggest cloves for planting.



2.

Poke some holes in the soil about 5 cm deep and 5 cm apart. Place one clove into each hole. Be sure to place the flat end down and the pointy end of the garlic up. The whole clove should be covered with soil.



3.

Small pointy shoots will grow in a few weeks. Snip the shoots with a pair of scissors.