WASHINGTON YOUTH GARDEN

Grow at Home
Activity Guide

FRIENDS OF THE NATIONAL ARBORETUM

WASHINGTON YOUTH GARDEN

Share your progress with us!

@WashYouthGarden

Table of Contents

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Materials & Instructions

Materials:

- 1 pot
- 1 paper towel
- 1 small ziplock
- 1 bag of compost
- 1 disc of Coco Coir
- 2 packets of seeds

How to Make Coconut Coir Soil:

1. Put your coir disc at the bottom of a large bowl
2. Add 1 cup of water and watch your coir expand!
3. Crumble the disc to break up the soil - if it does not crumble easily, add more water
4. Mix in compost, if you desire, or fill your pot with just coir and start planting!

Build a Seed Greenhouse

Learn all about germination!

This activity is great for demonstrating how seeds grow!

For this activity, you will need:

- 1 small ziploc bag
- 1 paper towel
- a few seeds
- 1 piece of tape

Step. 1

Soak your seeds overnight.

Step. 2

Fold the paper towel so that it fits in the ziplock bag.

Step. 3

Place one dry and one soaked seed inside the bag

Bonus question: How might soaking your seed affect germination?

Step. 4

Keep your paper towel moist, like a damp sponge, until the seeds sprout

Step. 5

Once your seeds have sprouted, you can try to plant them by gently putting the roots into soil

Bonus experiment: place another set of seeds in a paper towel outside a plastic bag.

Do the two sets of seeds grow the same way?

Starting Seeds

Learn how to grow your own food!

1. Fill your container with the **soil** you mixed from the growing kit
2. Use your finger to make a hole 1/2 in. deep
3. Place one seed in each hole and lightly cover with soil
4. **Water** your seeds & watch them sprout!

After they sprout, move your seeds to a sunny location

What seeds are in your house that you could try growing?

Use the seed notebook on page 7 to track your seed's growth.

You can also plant the pre-sprouted seeds you grew in your seed greenhouse!

Starting Seeds

Learn how to grow your own food!

What is a seed?

Write down your answer
& draw an example

What do seeds need to grow?

Write or draw your answer

Draw the different stages of your favorite plant

Seed

Sprout

Adult

Plant Care

Give your plant what it needs to grow!

Watering

1. Check your soil with your finger. Does it feel wet? Dry? In between?
2. If your soil is dry, water your plant thoroughly
3. Let excess water drain out of your pot. Be careful not to overwater your plants

Harvesting

- Be gentle when harvesting to prevent damage to your plant
- Use scissors or clippers to cut off the parts you want
- Some plants, like lettuce & kale, can be harvested over and over
- Make sure to keep enough leaves on the plant for it to survive!

Parts of a Plant

Match the different parts of a plant with the job they have

Seed	Keeps the plant upright. Sends food & water to the entire plant
Roots	Fleshy part that protects the seeds
Stem	Contains pollen & attracts pollinators
Leaves	Stores everything needed to grow into a baby plant
Flower	Lives underground and absorbs water & nutrients from the soil
Fruit	Absorbs the energy from the sun to make food for the plant (called photosynthesis)

Bonus Activity: Do you eat any of these parts of a plant? Draw them under their label!

My Seed Notebook

Track your seed's growth over the next 4 weeks!

My Seed is a _____ seed.

My seed is ____ weeks old today.

Today my seed looks like:

Today my seed looks like:

In one month, it will look like:

I think my plant needs more:

Sunlight

Less Water

When it is ready, I will use my plant to make:

Soil

More Water

My Seed Notebook

Track your seed's growth over the next 4 weeks!

My seed is ____ weeks old today.

Today my seed looks like:

I think my plant needs more:

Sunlight

Less Water

Soil

More Water

My seed is ____ weeks old today.

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Soil

More Water

Be a Scientist!

Learn all about designing your own experiments

When we have questions
about the world
we can guess what the answer is,
but how can we know for sure
that our answer is correct?

We can use the Scientific
Method!

What is the Scientific Method?

The Scientific Method is a set of steps we can use to gather the information we need to help us answer the questions we have.

1. Ask the question or **problem** you want to solve
2. Make a guess or **hypothesis** about the answer
3. Write down the steps or **procedure** to test your hypothesis
4. Make a **materials list** of all the items you need
5. Run your **experiment** and record your **results**
6. Write a **conclusion** that summarizes what you learned

Remember: A good hypothesis identifies a "**variable**" or part of the problem that we can test to see if our hypothesis is correct

Be a Scientist!

Use this list to design experiments you can conduct with your seed...or create your own!

Variables List

Inputs

How do the things you give your plant affect its growth?

- Light
- Temperature
- pH
- Type of soil

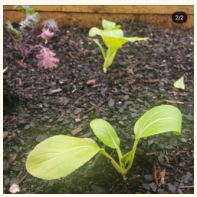
Actions

How does the way you care for your plant affect its growth?

- Freezing seeds before planting
- Soaking seeds before planting
- Talking to seeds
- Microwaving seeds

What other variables can you think of?

List as many things you can think of that might change the way your plant grows. Use the next few pages to test these variables!



Be a Scientist!

Follow these prompts to help guide your experiment

Problem:

What question are you trying to answer?

Hypothesis:

What do you think will happen when you test your variable?

Procedure:

How will your experiment work step-by-step?

Materials:

What items do you need to conduct your experiment?


Be a Scientist!

Sometimes we learn our hypothesis was 100% correct!
Other times we learn it wasn't all the way right
or maybe it wasn't right at all...but that's okay!

Conclusion:

What do your results tell you about your hypothesis?
What did you learn from your results?

Did your experiment create new mysteries?

Are there different variables you can test to answer this question?
Do you have any new questions you want to answer?


Sowing Scraps

Lots of your favorite foods can be replanted instead of thrown out!

Potatoes

1. Cut an old potato into pieces so that there are 2-3 eyes (or sprouts) per piece
2. Plant the pieces in moist soil with the cut side under the soil & the sprouts stinking out the ground

Onion & Garlic

1. Plant your garlic or onion when it sprouts like the picture above
2. Make sure the sprouts are above ground so they can get some sun

Avocado

1. Have an adult help you stick 3-4 toothpicks in your avocado pit
2. Rest the pit on the mouth of a cup & fill it so water covers the bottom of the pit
3. When roots sprout, transfer the pit to moist soil and raise like any other plant

(It takes 5 years for avocado trees to bear fruit)

Salad Greens

1. Place the heart of a head of lettuce in a bowl of water
2. Change water daily & keep in a sunny place
3. Plant in the soil after roots form and leaves sprout

You can use this technique with other leafy greens like cabbage & bok choi and even celery!

Glossary

Experiment: a way to test variables to answer questions we have

Greenhouse: a container used to control a plant's temperature & humidity (moisture level)

Germination: the process of sprouting a baby plant from a seed

Nutrient: a chemical compound in food that is essential for living organisms

pH: a scale from 1-14 that measures how acidic something is

Sowing: a fancy way of saying "planting"

Variable: something that changes or can be changed; not constant

For more resources & support:

@WashingtonYouthGarden
www.washingtonyouthgarden.com/resources
Education@WashintonYouthGarden.org

For local seedlings & supplies:

www.cultivatethecity.com
www.purpletools.net
dpr.dc.gov/service/garden-tool-share-program

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