UT Extension

[Intermediate Leaders' Page]

W144-A

Horticulture and gardening

Do you ever think about the food you eat? How it grows? What plant parts we eat? Most of us take this for granted. Food is used for more than just food ... but many of the items we use everyday come from food. Some of the new skills that you can learn in the 4-H Consumer Education project are listed on the left. Check your favorites and then work with your 4-H leaders and parents to make a 4-H project plan of what you want to do and learn this year.

Life Skill- Healthy Lifestyle Choices

Yummy Roots and Stems!

Did you know that many of the fruits and vegetables that we eat are actually the stems, roots, leaves, seeds and flowers of the plants from which these foods come? Look at the list of fruits and vegetables below. To which part of the plant does the food item belong? The plant parts are listed below. Write the food in the correct column. An example has been provided. P.S. there are more blanks than needed.

asparagus
artichoke
beans
beets
broccoli
cabbage
carrots
cauliflower
celery
corn
lettuce
peas
pumpkin
radish
spinach
sweet potato
turnips
watermelon

STEMS	ROOTS	LEAVES	SEEDS	FLOWERS
asparagus	beets	cabbage	beans	artichoke
celery	carrots	lettuce	corn	broccoli
	radish	spinach	peas	cauliflower
	sweet potato			pumpkin
	turnips			watermelon

More than food ...

Corn-on-the-cob, popcorn, sweet corn ... we love to eat corn! Did you know that many by-products we use every day are made from corn? Using a dictionary or the Internet, look up the definition for by-products and write it in the space below.

By-product: something produced in the making of something else.

The American Heritage Dictionary of the English Language
Fourth Edition, 2000, Houghton Mifflin Company

The following is a list of just a few of the products that are made from corn. Can you find them in the word jumble below? There are many other by-products made from corn. Some of these by-products are food. Others are not. Search the Internet to find others and list them in the space provided.

WORD LIST

meal	starch	margarine
chips	soap	medicine
tortillas	flakes	oil
syrup	glue	alcohol

BY-PRODUCTS

_____ _____

_____ _____

T	Y	C	H	I	P	S	B	M	N	X	A	B	M	Z
U	X	A	V	T	P	O	L	K	O	I	L	Q	P	A
S	O	L	X	W	V	A	K	B	Z	T	C	I	N	L
T	B	L	Y	R	U	P	W	Z	E	H	O	W	E	C
A	X	I	U	G	R	P	A	E	C	L	X	D	F	O
R	M	T	B	L	A	E	M	C	A	E	O	I	R	H
C	Z	R	T	U	M	N	S	T	X	U	D	U	R	O
H	D	O	M	E	D	I	C	I	N	E	X	S	W	L
E	V	T	C	D	R	F	L	A	K	E	S	E	U	Y
M	A	R	G	A	R	I	N	E	I	P	B	A	R	K

Scientific Seeds

Have you ever wondered what happens in the solil when you plant a seed? How does the seed become a plant? In this activity, you will use the scientific method to learn how seeds sprout and why it's important to take care of the seeds you plant.

UP CLOSE AND PERSONAL WITH A SEED

MATERIALS NEEDED:
11 lima or kidney beans
1 cup of water
1 glass
Pencil
Paper

DIRECTIONS:
1. Look at a kidney or lima bean seed. Write on the lines below what you think is inside of the seed.

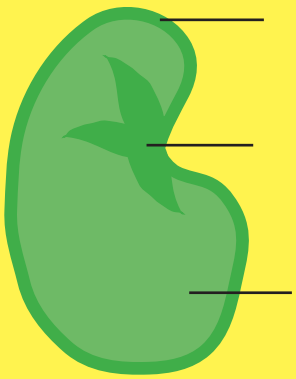
_____

_____

2. Soak the beans in the cup of water for 24 hours.

3. With the help of an adult or friend, carefully peel the outer coat from one of the seeds. Split the coatless sed in half with your finternail. Then draw what you see.

4. Use the words and definitions you leaned in the Word Match to label your diagram with : seed coat, cotyledone and embryo.



_____ SEED COAT

_____ EMBRYO

_____ COTYLEDON

Word Match

Use the Internet to find the definitations to the words listed below. Draw a line from the word to its definition.

SEED COAT -- to begin to grow or sprout

SHOOT -- food source for the plant until it can make its own food with its own leaves

EMBRYO -- contains the stems and leaves

COTYLEDON -- a tiny plant with leaf, stem and root parts

GERMINATE -- protects the embryo

Did You Know?

Science is a way of understanding the environment in which we live. Using the "scientific method," we can look step-by-step at differeint aspects of our environment to learn more about it. There are eight steps in the scientific method:

1. Ask a question.

2. Get information about the question.

3. Make a guess or a hypothesis about the answer. This guess is based on the information you have gathered.

4. Test your hypothesis. This is typically done through an experiment.

5. Get your answers.

6. Compare the answers you get with the guess or hypothesis you have made.

7. Determine your conclusion -- what does it mean?

8. Tell others about what you have discovered.

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Service Ideas

Give a project demonstration about one aspect of horticulture and gardening.

Work with an assisted living home to grow a garden.

Host a gardening workshop for a local interest group in your community.

Organize a group of students to assist in planting a flower garden at a local school.

Resources

School and public libraries
Horticulture and Gardening manual
4-H project leader/groups

The following Website was used to create this activity sheet. To learn more horticulture/gardening skills visit:

www.n4hccs.org
www.utextension.utk.edu/4H/projects/horticulture.htm

Don't forget! For more ideas and info, contact your local 4-H office.

Activities

4-H Demonstration

4-H Skill-a-thon

Create a weekly/monthly "Gardening Tips" for your local newspaper.

Enter your garden items in the county fair.

Set up a booth at the farmers' market to sell the items you have grown.

Get Growing!

MATERIALS NEEDED:
Paper towels
Small plastic bag
Journal/record book/notebook
Pencil
Magnifying glass (optional)
10 seeds soaked overnight from "scientific seeds" activity

DIRECTIONS:

1. Look at a kidney or lima bean seed. Write on the lines below what you think is inside of the seed.

_____
_____
_____
_____

2. Soak the beans in the cup of water for 24 hours.

3. Dampen a paper towel. Fold the paper towel in half. Place all of the seeds on one side. Then, fold the paper towel again. Put the paper towel in a plastic bag. Set in a warm place for 7 days.

4. Open the plastic bag daily and observe your seeds. What do you notice? Make a note in your journal (or use the one on the right) of the changes that have taken place each day. Draw a picture in your journal (or use the boxes on the right hand side) of how your seeds look each day.

5. The moist seeds should sprout within 7 days.

6. Did your experiment support your hypthesis?

7. Transform your seed journal onto poster board or into a Power Point™ presentation. Share your study with others.

SEED JOURNAL

Day 1: _____
_____

Day 2: _____
_____

Day 3: _____
_____

Day 4: _____
_____

Day 5: _____
_____

Day 6: _____
_____

Day 7: _____
_____