ABOUT CAN YOU DIG IT

Can You Dig It? is a three part program designed to connect youth and teens to gardening, farming, and our food system. *Can You Dig It?* includes three activities: Seed Starting, Planting & Growing, and Harvesting & Seed Collection

This educational resource is part of Grow: Johnson County's youth empowerment programming that aims to reconnect youth with gardens, farms, ecosystems, and to create spaces for cooperative learning.

Please adapt and make appropriate adjustments and additions for your community's needs.

To learn more about the program, **visit our website at www.growjohnsoncounty.org/canyoudigit**

LESSON A | PICK YOUR PLANTS

Lesson A- Pick Your Plants
(3-4 weeks before starting seeds)

Essential Question: When should seeds be started and crops be planted in Iowa?

Background and Starting Where You Are:

a.) Food is an important part of traditions and culture. What can we learn about our culture through the food we eat?

b.) Celebrate cultural diversity, consider cultural traditions embodied in the group when selecting crops.

c.) Consider which crops grow in your climate.

Materials:
Paper
Pencils
Seeds
Magnifying glass
ISU Plant Hardiness Zone Map of Iowa, *see additional handout*

Vocabulary: *(visit our website for definitions)*
last frost
first frost
cool season crop
warm season crop
food justice

Activity:

Make a list of crops you want to grow and pick your top choices.

Choose a variety of vegetables, fruits, herbs, and flowers for your garden. **Start small! Even 3-5 crops can be a great way to learn how to grow food!**

Try a mixture of mostly annuals and add perennials if space allows.

Dig Deeper: How Do You Start Seeds?

How do you read a seed packet? The back of a seed packet includes information about what is needed to know for successful seed sowing but it's not always easy to understand. Refer to the illustration below to know where to look on the seed packet for information about how to sow, care, and harvest seeds, and when to plant them by location.

(see below for guidance)

Plant and Botanical Name

Sowing Information: how to seed, care, and harvest

Transplant: when to plant outdoors based on location

Description of Seed: this section often includes a description of the appearance of the seed and a flavor profile of the vegetable or fruit

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For additional information about frost dates and seeding, transplanting, and harvesting in Iowa, refer to these resources included in the *Can You Dig It* packet:

Resource A - For information about frost dates in Iowa refer to the handout *Gardening Zones in Iowa* from Iowa State University Extension and Outreach.

Why is this a helpful resource? First and last frost dates inform planting dates and tell you the length of the growing season.

Resource B - *Planting Calendar*, from Iowa State University Extension and Outreach

Why is this a helpful resource? Planting calendars show the best dates for planting based on your location, this ensures the varieties you want to grow have time to mature in your growing zone.

Guiding Question For Youth:

What should we grow? What veggies do they love or what are some of their family's food traditions? **Set a tone of curiosity and celebrate cultural diversity.**

Explore these questions through specific examples.

Example 1: A crop that is important to your own food tradition.

Example 2: Tomatoes are essential to Mexican cuisine. Well before the Spaniards arrived, Mexico was growing, harvesting, and eating tomatoes. It was known as tomatl to the indigenous people, and were often eaten with hot peppers and used in sauces.

LESSON B | STARTING SEEDS INDOORS

Lesson B- Starting Seeds Indoors

Essential Question: When should seeds be started indoors?

Background:

As gardeners and farmers, we want to check what month certain activities can happen, like sowing seeds in a greenhouse or in pots indoors versus sowing seeds in the garden or at a farm outdoors in the soil. This activity will guide you on when to start seeds indoors and how to take care of them.

Materials:
Black plastic "4 cell packs"
Seed trays
Soil mix
Watering can
Seed packets
Plant labels
Grow lights

Vocabulary: *(visit our website for definitions)*
direct sow / sowing seeds
transplants
germination
thrive

Preparation for Education:

Where To Buy/Find Seed and Soil:

Johnny's Seeds *(www.johnnyseeds.com)*
Seed Savers *(www.seedsavers.org)*
Local Garden Center

Sowing Seeds Indoors vs. Direct Seeding Outdoors:

Some crops are best started indoors (once they sprout we call them transplants).

If you are starting seeds indoors you can sow seeds **1 to 3 months before the last frost date,** depending on the crop type.

Activity:

Share what crops can be grown in Iowa. (See Resource B). Gather the seeds you want to plant and sort out the ones to start indoors.

Gather necessary materials. You can use materials included in the *Can You Dig It?* kit or gather the materials listed under Activity 2.

Start Seeding:

Remember gardening is a great experiment and every year is an opportunity to learn, it's not about "bean" perfect!

Seeds you can start indoors: tomatoes, peppers, eggplant, kohlrabi, cabbage, broccoli, and onions! Crops that do best directly sown in the ground include: carrots, peas, cilantro, radishes, and garlic.

Step 1: Moisten the soil mix so it is completely wet but not dripping

Step 2: Fill the cells of your seed pack or containers.

Tip! Leave a little space at the top for water and press down lightly to get rid of any air holes

Step 3: Make a small dibel (indentation) in the center of each seed tray cell before dropping in the seeds and covering them up.

Tip! Planting the seeds at the right depth is vital! Your seed packets should tell you how deep to plant.

Step 4: Water daily and keep the surface moist during germination.

Tip! You may want to use a spray bottle or mist setting on a hose nozzle, so that you don't disturb seeds out of the tray. You can also cover the seed tray with a plastic dome or plastic wrap to retain moisture - remove plastic when plants start sprouting.

Dig Deeper:

Add an essential question about racial/social equity *(find resources from Leah Penniman at* ***https://www.soulfirefarm.org/resources/)***

For additional information, refer to these additional resources included in the *Can You Dig It* packet:

Resource C - For information about planting and harvesting times for garden vegetables, refer to the Iowa State University Extension and Outreach handout *Planting and Harvesting Times for Garden Vegetables*. The dotted line shows when seeds should be planted in Iowa.

Why is this a helpful resource? This guide can help northern, southern, and central Iowa vegetable growers schedule the planting of gardens so space may be used efficiently.

Resource D - For information regarding cool season versus warm season crops, refer to the Iowa State University Extension and Outreach List of Cool-Season and Warm-Season Vegetables in Iowa

Why is this a helpful resource? Cool season vegetables prefer cool daytime temperatures, while warm season vegetables prefer warmer daytime temperatures.

Guiding Question For Youth:

What do seeds need to thrive? What do people need to thrive?

LESSON C | KNOW YOUR GARDEN + PLANT FRIENDS

Lesson C - Know Your Garden + Plant Friends

Essential Question: What can we learn from observation and being curious? What can looking at the sun patterns in your garden teach you about how plants can thrive?

Background and Starting Where You Are:

We can learn a lot simply by paying attention. Three key elements are needed for plants to thrive: soil, water and sun. All of these processes impact our bodies and our environment and offer clues that tell you when it's time for seed starting and garden planting. This is an invitation to take time for observation and to practice curiosity around the sun.

Materials:
Notebook
Pencils

Vocabulary: *(visit our website for definitions)*
diversity
observation
partial shade
full sun
annual
perennial
companion planting
beneficial insects

Preparation for Education:

Start with the season! Check your garden soil to determine if the soil can be worked. If it's still frozen or too wet, start some of your seeds in pots instead.

Consider companion planting when planning your garden.

Companion planting means putting mutually beneficial crops next to each other, like plant friends!

Some crops are natural insect repellents for other crops. Other companions or plant friends help maximize space in the garden. Tall plants like sunflowers make a great trellis for pole beans to climb.

Herbs are great option for companion planting since they compliment just about any plant around them. They attract beneficial insects like bees, lacewings, ladybugs, and butterflies while deterring aphids, spider mites, squash bugs, and cabbage white butterflies.

Perennial herbs can be great to tuck in at the ends of rows for ease of harvest. Annual herbs like cilantro, dill, and basil are quick growing and can be sown between longer season crops like broccoli, peppers, and tomatoes.

Activity:

Create a garden layout plan and prep your planting beds. This will help you when you start preparing your garden beds. A simple map of crops and locations will come in handy when you harvest and when planning for next year.

Step 1: Focus on diversity and relationships! When designing your garden be sure to think about incorporating different kinds of plants (roots, fruits, perennials, annuals, and companion plants)

Step 2: Look at the seed packets and note the spacing requirements for each crop.

Step 3: Prep your garden by loosening the soil and removing rocks and weed roots.

Step 4: Feel the soil and observe its texture. Work in some compost to enrich the soil with organic matter to feed your hungry plants.

Step 5: Observe what kind of sun each plant will get and how often they might need water.

Dig Deeper:

Ask youth to investigate what diversity of produce grows in your area and what is in season now.

For additional information, refer to these additional resources included in the *Can You Dig It* packet:

Resource E- In the *School Garden Curriculum* book on page 72, Observing Plant Growth lesson.

Why is this a helpful resource? Use this resource to guide curriculum about observing your plants as they grow.

Resource A - For information about frost dates in Iowa refer to the handout *Gardening Zones in Iowa* from Iowa State University Extension and Outreach.

Why is this a helpful resource? Create a sowing calendar. Find your average first and average last frost dates. This will guide you as to the correct time to sow seeds of different varieties. Use an internet search or contact your local county Iowa State Extension office to find first dates.

Guiding Question For Youth:

What kind of diversity can we observe in the garden? What are some ways we can celebrate diversity in the garden and in our community?

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Want to learn more? We're available to help! Interested in expanding this lesson into a field trip at our farm? ***Reach out to us at our website growjohnsoncounty.org/canyoudigit and fill out the interest form.***