

4-H Training Topics - *Down-to-Earth Enriching Learning Through Gardening*

Background:

This project is designed to introduce middle school youth to the scientific method and the joys of gardening at home and in the community.

Resource:

Down-to-Earth, Enriching Learning Through Gardening is a single project activity guide designed for adults to use with children and youth.

Materials Needed:

- Copies of *Down-to-Earth*, pages 48-50 for each person,
- Three poster boards (green, yellow, red; one each color),
- Pencils and notebooks or paper for each person,
- Rulers,
- Storage container (could be a plastic or paper bag),
- Name tags in two different colors.

Preparation:

Select an indoor or outdoor space about 20' x 20', big enough for the group to move around. Cut the poster board into 2" squares and mix them up in the storage container. Allow 30 minutes.



1 Opening Activity

What to Do	What to Say	Minutes
Have everyone make a name tag as they arrive. If two different colored name tags are used this will provide the way to divide the group for the activity.	Make a name tag that includes your name and a picture of a vegetable that begins with to same letter as your first name, for example Carole Cucumber	3

2 Curriculum

What to Do	What to Say	Minutes
Briefly explain the relationship of plants, soil and water, <i>Down-to-Earth</i> , page 48.	Plants need more than sunlight, water and carbon dioxide; they also need nutrients so sometimes we need to add fertilizer to the soil. Plant roots absorb three vital nutrients from the soil: nitrogen, phosphorus and potassium. A soil test indicates how much fertilizer a garden's soil needs. Today we are going to learn more about the 4-H project, <i>Down-to-Earth</i> .	10

3 Staff Introductions

What to Do	What to Say	Minutes
Have everyone say their name and vegetable.	Please tell the group who you are, where you work and the vegetable you drew on your name tag.	3

4 Doing an Activity

What to Do	What to Say	Minutes
<p>Lead the group to the open space. Be sure they have pencils and paper or notebooks to records the results of the activity. Have them divide into two groups, and then explain the rules.</p> <p>Scatter the squares on the floor/ ground around the plants. Plants gather the squares and record the results. This is repeated three times.</p> <p>Explain the colors of the squares.</p>	<p>Let's go outside (or into the multi-purpose room) to the garden. You will need to take a pencil and paper with you. Now count off one-two (or use the colored name tags to divide the group). The ones will be weeds and the twos vegetables. The veggies need to line up in rows evenly spaced in the garden. The weeds can randomly fill in the spaces among the vegetables. We're going to play a game to get a better understanding of plant competition. When told to begin, the object is for the weeds and veggies to gather as many squares as possible. Remember all plants are anchored to the ground and can't move by themselves. Feet should not move when reaching for the nutrients. If they do that weed or vegetable is disqualified.</p> <p>Now I'm spreading the fertilizer around. When I say GO you will have 10 seconds to pick up as many squares as possible. When I say STOP count the squares and write down the number of each color. We'll do this three times. "GO!"</p> <p>Each square is a plant nutrient. Green represents nitrogen; yellow represents potassium; and red represents phosphorous. If you, as a vegetable or weed, did not pick up at least two of each nutrient by the third round you "die" and must step out of the garden. Let's try another round.</p>	20

5 Sharing Ideas

What to Do	What to Say	Minutes
<p>Collect the squares and have everyone stand in a circle.</p>	<p>Let's get in a circle so everyone can be heard. How did you feel about being a weed? A vegetable? How many of each nutrient did you collect? What kept you from getting a higher number of each nutrient? Who got more of each nutrient and why? Were any plants lost because they didn't get any nutrients? Why is it important to know that weeds and vegetables compete in gardens? Why is it important to know the mineral content of soil?</p>	5

6 Applying the Experience

What to Do	What to Say	Minutes
<p>Stay in the circle.</p>	<p>Now think about the young people who will be in the project. Is this an activity they will enjoy? Will it need to be modified? What are some ways this project can be expanded and used throughout the program?</p>	3

7 Making a Plan

What to Do	What to Say	Minutes
<p>Make a plan for starting the gardening project.</p>	<p>Now it's time to work as a group and set some dates for project meetings. When should the project meetings start with the youth? What ideas from this training will be used? Who will be the adult project leader? When should another planning meeting be held that includes youth?</p>	7

8 Closing

What to Do	What to Say	Minutes
<p>Summarize and close.</p>	<p><i>Down-to-Earth</i> is a project that allows youth to get exercise, learn about and develop an interest in gardening, and expand their knowledge of the scientific method.</p> <p>Thanks for participating. Are there questions?</p>	3