

ACTIVITY #1 INSTRUCTION MANUAL

ORGANIC FARMING VS. NON-ORGANIC FARMING

Materials/Props:

- 2 labeled (“non-organic & organic”) containers (fill w/ own soil)
- 2 fake plants (one plant with holes punched in the leaves)
- Spray bottle - labeled “pesticide spray” (fill w/ water)
- Small container - labeled “pesticides” (fill w/ salt)
- Laminated “USDA Organic” label

Preparation:

1. Take two containers. Label one “non-organic” and the other one “organic.”
2. Take the container labeled “non-organic” and fill it with the non-organic soil. Take the container labeled “organic” and fill it with the organic soil.
3. Insert the fake plant with holes in the leaves into the “organic” soil/container. Insert the fake plant without holes into the “non-organic” soil/container.
4. Take the plastic vial, label it “pesticides,” and pour some salt in it.
5. Take the spray bottle, label it “pesticide spray,” and fill it with water.

Procedure:

1. Introduce yourself. Ask the audience if they know what the difference between non-organic and organic farming is. If nobody can give a sure answer, just tell the audience that you are going to be performing a demonstration to explain the difference.
2. PRE-ACTIVITY EXPLANATION.
 - a. Ask the audience: what are pesticides? Why do we use them?
 - i. If nobody can give a sure answer, then just explain:

Pesticides are harsh chemicals that kill pests. They are usually used on plants in order to get rid of the bugs so more crops can be produced. There are three types of pesticides: insecticides kill insects, herbicides kill plants (like weeds), and fungicides kill mold or fungus.

Pesticides are used to increase crop production and make more money selling more crops.
 - b. Ask if there are any questions.
3. Present the containers. Ask the audience if they know what non-organic and organic mean in relation to the soil in the containers.
 - a. *Non-organic soil has chemicals and pesticides, but organic soil does not.*
4. Add the “pesticides” in the salt vial to the container labeled “non-organic.” Explain the difference between the two soils in a more detailed fashion:
 - a. *Organic soil is basically just gardening soil that only contains ingredients that are organic-certified. What does this mean? Organic soil does not contain any chemicals or pesticides. Instead, it is made with natural, organic ingredients. Non-organic soil is just the opposite! Much of non-organic soil uses chemical fertilizers and pesticides, which can be pretty harmful if we breathe them in or eat foods that contain them.*

5. Now, move on to the differences between the plants. Ask the audience what the difference is and what they think caused it.
 - a. *Difference: one plant has holes in its leaves, and the other one doesn't.*
 - b. *This is the result of me adding all these pesticides to the soil.*
6. Spray the non-organic plant with the "pesticide spray" spray bottle.
 - a. *Pesticides can come in many different forms: pellets, sprays, or even gels!*
7. Explain the difference between the plants and what caused those differences if no one has fully guessed it yet.
 - a. *The plant in the organic soil has holes in its leaves because bugs ate patches of the leaves. Organic soil does not contain any harsh pesticides that would otherwise kill these bugs. So, the bugs eat the leaves. The non-organic soil has pesticides, which kill pests. So, without any bugs to eat the leaves, there are no holes in the leaves of the non-organic soil plant. But, that's not good! Pesticides can be really harmful not only for the environment with all its chemicals, but also for us because these pesticides can end up in the foods we eat.*
8. Explain why pesticides are so harmful for our health.
 - a. *Though pesticides, in most cases, do not hurt the plant, they can hurt us. While most pesticides increase crop production because plants are not being damaged as much, the pesticides are actually very harmful! If we breathe them or consume them over time, it can lead to a whole lot of health problems. If I was going to eat this non-organic plant, I would also be eating all the pesticides I just added to it too.*
9. Connect this concept to the historic families of Dublin.
 - a. *Even many years ago in Dublin, farmers like Michael Murray and Jeremiah Fallon did not use pesticides. All of their farming and goods were purely organic and 100% chemical free. They lived really pure and healthy lives.*
10. Finally, urge the audience to eat pesticide-free by looking for the "USDA organic" label on fruits and vegetables at the supermarket. Show them the laminated label.
11. End of presentation.

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MANUAL AND PROGRAM CREATED BY ASHA RUDRABHATLA

