CHEMICALS CAN BE ANYWHERE AND EVERYWHERE

Objective: Identify locations where chemicals are found, used, and stored.

Concept: Chemicals are not always visible to the naked eye and may leave residue on unintended objects.

ACTIVITY 1

Targeted Age: Elementary School Age

Materials:
- Talc Powder
- Electric Fan
- Respirator Masks

Ask a volunteer wearing dark clothing to sprinkle talc powder onto their clothing. Explain that we can see the powder when used in concentration. Turn a fan to high setting and have the volunteer stand in front of the fan. Allow the powder to blow in all directions. Have the students see if they can find any of the powder on them or in the room. Explain that the particles are so small that they "disappear" in the air. They are still there but invisible. This is what happens when chemicals are sprayed on an open field of crops. The invisible chemicals can be on shoes, clothing, and skin without anyone knowing about their presence. Chemicals can be carried into the car and house, exposing other family members and pets along the way.

Discuss how personal protective equipment (PPE) works to protect workers from the chemicals. Obtain several types of masks from chemical representatives or safety supply stores. Relate the concept of invisibility of chemicals and how the PPE prevents exposure and filters the applicator's air.

The importance of personal hygiene might help children understand this concept. The analogy of contracting a cold virus in the winter from surfaces they have touched helps students understand the dangers of unseen items. You can get sick from either the cold virus or the chemical.

ACTIVITY 2

Targeted Age: Elementary School Age

Materials:
- Large poster paper
- Markers
- Spray bottle filled with water colored with food coloring

This activity may be messy so you may want to conduct it outside. Before the session draw a picture of a farmstead on a large (3 feet) piece of paper. Include an apple tree with apples, a couple kids, a dog, and an adult in the yard. Prepare a mixture of water and food coloring. Fill a non-aerosol spray bottle with the solution.

Ask a volunteer to spray the apples on the tree with the solution from a couple inches away. This represents chemicals that may be sprayed on a crop in the field. The colored liquid will cover more than the tree. Have students point out where the spray landed on other objects besides the tree. Remind children they would probably not be able to see the spray, but for demonstration purposes we've added color to see where the spray settled.

Repeat the procedure from a distance of one foot. Talk about how the greater distance spreads the liquid farther than when the bottle was closer. Explain that is what can happen when chemicals are sprayed incorrectly. The wind can blow the chemicals and they can drift on items that are not intended to be sprayed. Discuss the importance of staying away from areas that might have been sprayed and also marked as restricted-entry interval zones.