
ACCURACY WHEN WORKING WITH CHEMICALS

Objective: Decrease the likelihood of negative effect from chemical exposure.

Concept: Applying chemicals on the farm can come at inconvenient times when the job of application needs to be done in a hurry. This activity can be fun while still letting the students experience the problems that can exist if people don't pay attention to a task. The use of chemicals can be potentially dangerous if done carelessly. Students will experience a lack of control when working in a rushed situation.

Targeted Age: Adolescence

Materials:

- ▶ Large transparent containers such as clean like sized plastic gallon milk cartons
- ▶ Funnels
- ▶ Adhesive tape
- ▶ Water colored with food dye

This activity can be messy so this makes a good outdoor activity. Divide the groups into two (or more if the group is large) teams. Give each team a gallon container of colored water, an empty bottle, and a funnel. Mark the water level of the original bottle.

The objective is to pour the contents of one bottle into the empty bottle without spilling. The first time the pouring procedure is done indicate time is of no concern, but accuracy is important. Mark the liquid level with a piece of tape. Is it the level after pouring from one bottle to the next? It should be if the bottles are the same size.

Repeat the same procedure again, this time giving the students a 20-second time limit. Measure the liquid's volume by comparing to the taped line. The students should be able to pour the contents without spilling with the time period.

Repeat again, this time giving them only 2 seconds. Compare the liquid volume with the marked line. Another way to measure the contents is with a set of scales.

Explanation:

Hurrying and carelessness have no place when working with potentially dangerous items. Have the students discuss how much of the liquid got on their hands and other surfaces. If this was a real chemical what precautions should they have taken to prevent injury?

- ▶ Protective equipment-listed on the label
- ▶ Gloves
- ▶ Eye protection
- ▶ Coveralls
- ▶ Ignore the kidding, silliness, and horseplay of others around them
- ▶ Pay attention to the task

