

# CASE

## Activity 3.1.1 Lab Tech Training

### Purpose

In a science lab, you may notice many pieces of equipment and tools. Each piece of equipment has specific uses. Laboratory technicians must know the appropriate uses. When setting up a lab, when do you use a beaker versus a graduated cylinder? What are appropriate instruments to use for measuring volume versus length?

Safety is a primary concern of laboratory technicians and they must have an attitude of safety when working. One component of an attitude of safety is knowing and using the right tool for the job. Another is wearing the appropriate personal protective equipment for the materials you will be using. Training for laboratory technicians is an extensive journey and today you will begin that journey.

### Materials

#### Per class:

- Apron
- Alcohol burner
- Beaker
- Beaker tongs
- Burette clamp
- Dissection kit
- Dropper
- Electronic balance
- Gloves
- Graduated cylinder
- LabQuest2
- Microscope
- Petri dish
- Pipette
- Ring stand
- Safety glasses
- Sensor
- Support ring
- Test tube
- Thermometer

#### Per student:

- *Lab Equipment Note Card*
- *Agriscience Notebook*
- Pencil

### Procedure

Your teacher will provide you with a note card describing one lab equipment item. You will use the clues to determine which item from the supply table matches your description and then present your item to the class.

## Part One – What am I?

Read your note card and determine which item you have. Use the Materials list to help determine the proper name of the item. Once you have found your item, answer the following analysis questions. Be very descriptive in your answers.

- What does the item look like?
  
- What is the item used for? I.E. – Safety, measurement, container, support or movement, etc.

## Part Two – Sharing

When called upon by your teacher, you will read the clues from your card to the class. The class will use the clues to determine the item you are describing. After the class has correctly guessed your item, share your answers to the two questions from Part One.

As your classmates share their items, record what each item is, looks like, and is used for on *Activity 3.1.1 Student Worksheet*.

## Conclusion

1. Why is knowing what items look like and how they are used important for laboratory safety?

It is important to know what the items look like and know how they are used because then you are using it for the correct things. It is also safer.

2. What are three items used for measurement?

Graduated Cylinder  
Beaker  
Electronic balance

3. What are three items used for collecting data?

Electronic balance  
Labquest 2  
Sensor

Name\_

## Activity 3.1.1 Student Worksheet

**Directions:** Record the name of each item of laboratory equipment you and your classmates present. Describe each item in the *Looks Like* column and list the uses for each item in the *Uses* column. Keep this worksheet in your *Agriscience Notebook* as a reference for laboratory activities throughout the year.

<b>Lab Equipment</b>	<b>Looks Like</b>	<b>Uses</b>
Dropper	made of glass or plastic	transfer small amounts of liquid
Glasses	goes over eyes, plastic	protecting eyes
Burette Clamp	metal, rubber tips	used with ring stand, support large item
Thermometer	Celsius and Fahrenheit, long enclosed tube	measuring, determine temperature
Dissection Kit	scalpel, pick, forceps, tools	dissect specimens
Gloves	plastic, goes over hands	to protect hands and skin,
Graduated Cylinder	glass	measure liquids, high accuracy
Electronic Balance	scale	to determine mass
Pipette	clear, smaller	move little amount of liquid
Apron	long cloth	protects clothes and body
Beaker	made of glass	holds liquids, not very accurate when measuring
Alcohol Burner	glass	used to produce heat
Beaker Tongs	looks like a big clamp, plastic/rubber tips	to carry the beaker
Sensor	wires	used with Labquest, used for data collection
Support Ring	metal	holding the test tube
Test Tube	glass	holds liquids
Microscope	metal	used to see small things
Ring Stand	metal pole with two rings to put things into, holds	Support stand for lab apparatus, used to suspend/secure items, metal
Petri Dish	small bowls	culture microbial colonies
Labquest 2	looks like a computer	collect data