

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?

You don't want to put the wrong thing in the wrong container or mess up or everything could go wrong.

2. What are three items used for measurement?

Beaker, cylinder, pipette

3. What are three items used for collecting data?

Sensor
Thermometer
Petri Dish

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.

Lab Equipment	Looks Like	Uses
Apron	Big clear coat	Protect clothes and body
Alcohol burner	A lantern	Compare fuel sources
Beaker	A drinking glass	With heat, to hold liquid
Beaker tongs	Food tongs	Carry hot glassware
Burette clamp	Fly swatter	Support or suspend large items
Dissection kit	Nail kit	Dissect specimens
Dropper	Turkey baster	For individual drops
Electronic balance	Weight scale	Determine mass
Gloves	Gloves	Protects hands and skin
Graduated cylinder	Tube	Holding hot liquids
LabQuest2		
Microscope	Alien	Magnifies very small objects
Petri dish	Bowl	Used to culture microbial colonies
Pipette	Squeezer	Transfer liquids
Ring stand	Circus stuff	Suspend and secure items
Safety glasses	Sunglasses	Protect eyes
Sensor	Light	Data collection
Support ring	Ring	Hold test tubes and other small items
Test tube	Tube	Hold liquids
Thermometer	Stick	Détermine temps