

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*
- *Pencil*
- *Agriscience Notebook*

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?

If you don't know what you are using or the correct way to use it, it could end up getting broke

2. What are three items used for measurement?

Beaker, graduated cylinder, dropper

3. What are three items used for collecting data?

LabQuest2, sensor, electronic balance

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	plastic or rubber material that cover the front of your body	used to protect clothes and body
alcohol burner	made of glass	used to produce heat, and used to compare fuel sources
beaker	made of glass, has measurement lines	used to hold liquids, can measure, not a high degree of accuracy
beaker tongs	metal, scissor like, has plastic coated tips	used to carry hot glassware
burette clamp	metal, with many knobs	used to support or suspend large items
dissection kit	tools, scalpel, forceps, pick	used to dissect specimens
dropper	made of glass	high accuracy and used to transfer liquids
electronic balance	scale looking metal thing	used to determine mass
gloves	plastic that covers your hands	protects hands and skin
graduated cylinder	made of glass, measurement lines, taller than beaker	holds liquids, accurate measurement
LabQuest2	has similar functions to a computer	used to collect data
microscope	observation tool, requires power	magnifies very small objects
petri dish	shallow dish	used to culture microbial colonies
pipette	made of glass or plastic	low accuracy, used for individual drops and transferring liquids
ring stand	metal, has 2 rings on it	used to suspend and secure items
safety glasses	plastic that covers your eyes	protects eyes
sensor	wires with probe	used with LabQuest2, used in data collection
support ring	a ring with tightening knob	holds test tube and other small items

test tube	made of glass	often used with heat, holds small quantities
thermometer	has celsius and fahrenheit on it	used to determine temperature