

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?

So you don't use the tools wrongly and create a mess.

2. What are three items used for measurement?

Beakers, electronic balance, and scale.

3. What are three items used for collecting data?

LabQuest, sensor, and thermometer.

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
dropper	glass	hold and dispense liquid
safety glasses	eye wear	protect eyes
gloves	rubber	protect hands when working with chemicals
dissection kit	tools	case of tools such as scalpel, forceps, pick
thermometer	measuring device	used to determine temperature
graduated cylinder	plastic	used to transfer liquid
pipet dropper	plastic	used to transfer liquid
scale	metal	used to determine mass
apron	long cloth	protects clothes and body
clamp	tool	hold things
alcohol burner	glass	used to produce heat, can compare fuel sources
sensor	cord	used in data collection, used with LabQuest2
support ring	metal	holds tube
test tube	glass	used with heat, holds small amounts
tongs	tongs with rubber ends	used to carry hot glass
microscope	white, heavy	magnifies small objects
ring stand	post with rings	hold test tube
petri dish	shallow dish	used to culture microbial colonies
lab quest	phone like	used to collect data
electric balance	scale like	measures mass

beaker	glass, round	holds liquids, can measure
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