

2006-2007 WHRO Classroom Preview

Series Title: Tools In Science
Curriculum Area: Science
Grades: 5 - 9
of Programs/Length: 4/20:00 minute programs

1. The Microscope (PREVIEW PROGRAM)

While the microscope is one of the most exciting pieces of laboratory equipment, it is also one of the most expensive and fragile. This video illustrates how to safely and effectively use a variety of microscopes commonly found in the school laboratory. Through colorful diagrams the various components of the microscope are illustrated, as is their use. Special emphasis is made on how to prevent accidents, and how to maintain this very useful scientific tool. Other terminology includes: magnification, slide, arm, eyepiece, body tube, nose piece, objective lenses, stage, diaphragm, mirror, coarse adjustment, fine adjustment, and light. 20:00

2. Measuring Mass & Volume

This program begins by discussing common ways mass and volume are measured in the home. The video highlights how mass and volume are measured with various types of equipment in the school science lab. Some of the different tools used to calculate the mass of objects are illustrated. Accuracy and safety are stressed when conducting measurements of mass and volume. Other terminology includes: balance, spring scale, electronic scale, grams, kilograms, milligrams, beaker, graduated cylinder, liter, milliliter, and cubic centimeter. 20:00

3. Measuring Length and Temperature

This video illustrates how length and temperature are measured using common lab equipment. Students are shown how to accurately measure length using tools such as meter sticks and metric rulers, and how to record their observations. Temperature is also frequently measured in the school lab. The safe use of various types of thermometers is highlighted. Other terminology includes: metric units, meter, centimeter, millimeter, rounding off, glass thermometer, digital thermometer, Celsius, and meter stick. 20:00

4. Lab Equipment Safety

Lab equipment is expensive, and if not used properly it can be dangerous. This video focuses on the safe and effective use of common laboratory equipment. Special emphasis is placed on the prevention of damage to lab equipment, and the prevention of bodily harm. The use of various types of safety equipment found in most school laboratories is stressed. Other terminology includes: glassware, heating materials, chemicals, sharp instruments, safety goggles, lab apron, eyewash station, tongs, and fire extinguisher. 20:00