

# What Tools Do Scientists Use?

## Science Words

Say each word quietly to yourself. Then read the meaning.

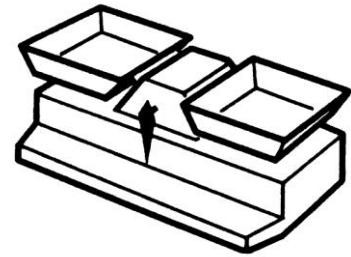
Read the tip to help you remember.

**microscopic** [my•kruh•SKAHP•ik] too small to see with just your eyes alone

*Microscopic* and *microscope* are in the same word family. A microscope makes tiny things look bigger, so a microscope helps you see something that is *microscopic*.

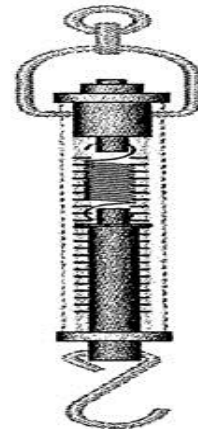
**balance** [BAL•uhns] a tool used to measure mass, the amount of matter in an object

A *balance* may make you think of a seesaw. When a seesaw is balanced, both sides are at the same height. When both sides of a *balance* are the same height, the mass of the objects on both sides of the balance is the same.



**spring scale** [SPRING SKAYL] a tool used to measure the force, or pull, of gravity on an object

Using a *spring scale* may make you think of hanging a coat from a wire hanger. If the coat is heavy, it may pull on the hanger and cause it to stretch. When an object hangs from a *spring scale*, the force of gravity pulls on the spring, which stretches.



**accurate** [AK•yuh•uht] correct, without error

*Accurate* and *actual* begin the same way. An *accurate* measure of something is the actual amount of it.

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## Science Concepts

**Read the Ideas more than once. Do your best to remember them.**

1. Field scientists may use nets, hand lenses, and cameras in their investigations.
2. An electron microscope can make something look a million times bigger than it really is.
3. A dropper releases liquid drop by drop; a pipette is like a dropper but more exact.
4. Measuring is making observations that involve numbers and units, such as kilograms.
5. Scientists and most people in the world use the metric or International System (SI).
6. The metric system is based on multiples of 10.
7. Length is measured in meters; mass is measured in grams; force is measured in newtons.
8. A meter stick measures length; a balance measures mass; a spring scale measures newtons.
9. A graduated cylinder measures the volume of a liquid in liters.
10. To find the volume of a solid multiply its length by its width by its height.