



Course Building Construction
Section: Carpentry



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Make and Use a Plumb Bob

What You Will Do

Make a plumb bob (a weighted string) from household items to find a perfectly vertical line.

Materials You Will Need

- String
- Washers, nuts, keys, or small weights
- Tape
- Pencil
- Paper taped to wall

What is a Plumb Bob?

A plumb bob is a pointed, weighted tool (usually metal for the weight) hung from a string to establish a perfectly vertical line, known as “plumb”. It uses gravity to ensure accuracy in construction, carpentry, and surveying for aligning walls, columns, and studding. It works because no matter how you hold it, gravity will always make it point toward the center of the Earth.

Part 1: Make a Plumb Bob

- Tie a weight to the end of string. The weight should be fairly heavy so it can't be moved by wind.
- Hold top of string against wall.
- Let weight hang still.
- Trace the string line on paper.

Part 2: Measure for Plumb

Check if:

- Door frame looks plumb
- Bookshelf side is vertical
- Wall corner is straight

Part 3: Calculate Total Deviation

Hold the end of the string against the wall or other surface. Let the weight hang freely. Measure the gap between the string and the wall at the bottom to determine the deviation. If the bottom measurement is 1 inch from the string the wall is out of plumb by 1 inch.