



Learning Activity – Converting Measures

Get out your tape measure or multiply by 12. Use a calculator if you would like. Convert the following measurements to inches.

- | | | | | | | | |
|-----|---------------------|---|-------------------------------------|-----|----------------------|---|-------|
| 1. | $5' \frac{3}{4}"$ | = | <u>60 $\frac{3}{4}"$</u> | 11. | $7' \frac{1}{2}"$ | = | _____ |
| 2. | $10' \frac{3}{4}"$ | = | _____ | 12. | $6' \frac{7}{16}"$ | = | _____ |
| 3. | $3' \frac{5}{8}"$ | = | _____ | 13. | $8' 6 \frac{5}{16}"$ | = | _____ |
| 4. | $5' \frac{7}{8}"$ | = | _____ | 14. | $8' \frac{7}{8}"$ | = | _____ |
| 5. | $8' 2 \frac{1}{4}"$ | = | _____ | 15. | $7' \frac{7}{8}"$ | = | _____ |
| 6. | $1' 5 \frac{1}{8}"$ | = | _____ | 16. | $2' \frac{3}{4}"$ | = | _____ |
| 7. | $4' \frac{5}{8}"$ | = | _____ | | | | |
| 8. | $2' \frac{1}{16}"$ | = | _____ | | | | |
| 9. | $6' \frac{9}{16}"$ | = | _____ | | | | |
| 10. | $4' 4 \frac{1}{8}"$ | = | _____ | | | | |

Learning Activity – Funbrain Online

A great website: Measure It! @ FunBrain www.funbrain.com/measure/

Start with Easy Inches. When you feel comfortable, move on to Medium, and finally Hard. This site also allows you to practice metric measurements.

More on Measurement

Visual Aids

Comparisons

Most of the math you will need to work as a horticultural technician will be “done in your head” or told to you by your supervisor. Because of the seasonal nature of the business, work must be completed as quickly as possible. Your supervisor will generally mark off sections of ground that are to be worked with spray paint or use chalk lines to guide you in hardscape construction projects.

To save time and money, most employers in this field will give you measurement directions by using visual aids. There often is no time or need for precise calculations. For example, an employer wants you to dig a trench for a retaining wall. A retaining wall needs a deep foundation. They want the trench to be 6 inches (15 cm) deep. To measure 6 inches, as you’re digging, would take a lot of time. Instead, using a visual comparison, such as half a spade head or a full spade head, will speed things up. Measurements are often given in this way by experienced landscapers.



Visual aids are usually used for most planting tasks. Let's say you're planting bamboo. Your supervisor may say, "Dig a hole as large as the container and twice as wide."

Spacing plants is often done by hand references such as the distance between your thumb and your baby finger or the width of three fingers together, etc. Planting depths can be given by finger references, for example, "plant up to your second knuckle". These references are used to save time.

Three Common Measures

Square

It is helpful to have a visual reference for some of the common measures that are frequently used in landscaping.

A common measurement used in landscaping is the square foot. A square foot is about the size of most floor tiles.



$$1 \text{ square foot} = 1 \text{ foot} \times 1 \text{ foot}$$

Area can be defined as the amount of surface of something flat. The formula for area is:

$$\text{Area} = \text{Length} \times \text{Width, or}$$

$$A = L \times W$$

Area is often measured in square feet.

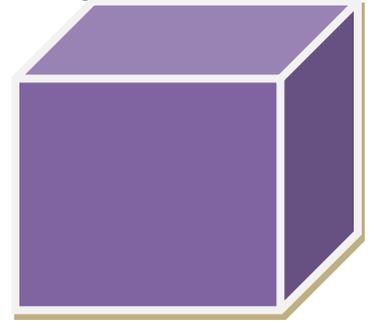


Cubic Measures

Unlike area, which is a **two**-dimensional surface measure ($A = L \times W$), cubic measures tell us the amount in **three**-dimensional spaces. Cubic measures are made up of Length, Width and Height. These distances are multiplied together to give you the volume.

You know you are working with volume when you see the measurement unit has the following notation: 5 yards³ or 5 cubic yards.

What does a cubic yard look like? 27 cubic feet equals 1 cubic yard. A cubic yard of soil weighs 2,700 pounds. Does that help you visualize it?



On the next page you will find a learning activity to help you practice the information you just learned.