

Early Measurement

- Early Measurement used units like...
- The "CUBIT"...
- The "Fathom"...
- The "Hand/span"...
- The "Pace"...
- The "Girth"...
- The "Palm"...



-The purpose of this slide is to compare the accuracy of modern measurement to the inaccuracy of early measurement.

- Cubit = Distance from elbow to fingertip
- Fathom = Wingspan
- Hand /Span = Width of hand the hand
- Pace = One step length
- Girth = Around the body at the beltline
- Palm = Width of palm

- Have students measure their desk in hands, the height of the door in cubits, etc.

Discuss the pros and cons of this type of measurement.

- Discuss reasons that this type of measurement has been abandoned for modern standardized units

Hand



Measurement Units

- What are some examples of...
 - Length Units
 - Volume Units
 - Weight Units

- Measurement units are constant values no matter what!



- Have students give examples of length, volume, and weight units.

Key Understanding: Students should know that measurement units are standardized no matter who is measuring them or where they are measured

Measurement Systems

There are two types of measurement systems, what are they?

English or Standard
Metric



The Metric System

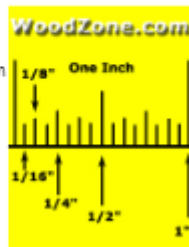
- 1 meter = 10 dcm = 100cm = 1000mm
- Used all over the world
- Common in Machining, Mechanical applications
- Expressed in decimal form



Ask students to find the pattern in units (base 10)

The English / Standard System

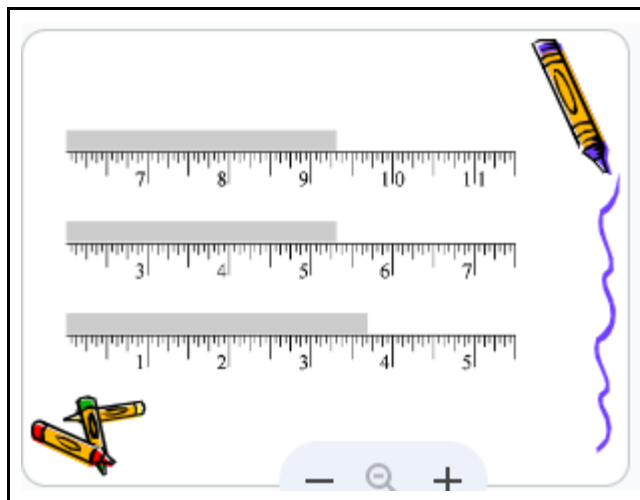
- 1 yard = 3 feet = 36 inches
- Foot = '
- Inch = "
- Broken into fractions of an inch
 - 1/2, 1/4, 1/8, 1/16



Ask students to find the pattern in units here (trick question, there is none)

Foot is abbreviated with one mark (')
Inch is abbreviated with two marks (")

Take time to explain the length of the lines as they relate to the inch in the picture.



Work through these inch measurements together as a whole group.