

1.1 Discussion

Throughout this course, you will have opportunities to discuss what you have learned in the course together as a group. Sometimes, the discussion will be about what you are currently learning. At other times, you may be a bit behind where the discussion is or you may be ahead of it. That is okay. If you are behind, the discussion will preview what you will be learning. If you are ahead, the discussion will be a review of what you have already learned.

Note:

If you are a facilitator of a group of students, use the discussion material and questions below to lead a discussion with the group.

If you are a student learning on your own, answer the questions and complete the activities explained below.

Systems of Measurement

Did you know that the way people measure things has evolved over hundreds of years? In 12th century England, a **yardstick** was an official standard of measurement. A **yard** was simply the distance from the tip of the king's nose to the end of his outstretched thumb.

Hold out your arm in front of you with your thumb pointed up at the ceiling. Notice the distance from the tip of your nose to the end of your thumb. That is about a yard (some of your arms are shorter than the king's were, and some of your arms are longer; obviously, this measurement is not exact).

What could you measure using this standard of measurement?

In ancient Egypt, a common standard of measurement was called the **cubit**. A cubit was the length of one's forearm from the elbow to the end of the middle finger.

Hold out your arm with your fingers outstretched and your elbow slightly bent. Look at the distance from your elbow to the tip of your middle finger. This is a cubit.

The Egyptians also used something called a **royal cubit**. A royal cubit was a cubit plus a palm (the width of a hand).

With a partner, demonstrate the length of a royal cubit. One person should hold out their arm with the elbow slightly bent to show the length of a cubit. The other person should place their palm next to the tip of the first person's middle finger to show a cubit plus a palm. This is a royal cubit. Royal cubits

were used as the standard of measurement in the construction of buildings and other structures in ancient Egypt.

What could you measure using this standard of measurement?

As discussed in the lesson, a **foot** is also a standard of measurement. Today, one foot is the length of 12 inches. However, hundreds of years ago, a foot was the length of an average man's foot. This standard of measurement was used to measure distances. Let's do an activity to see how this standard of measurement may have been used.

Line up on one side of the room. Carefully walk, one foot in front of and touching the other, until you reach the other side of the room. Count each step as one foot. How many feet did you count walking across the room? If another person around you also walked across the room, ask how many feet they counted.

- How did the number of feet you measured compare to the number of feet measured by those around you?
- If the number of feet you counted was different from the person next to you, why were the measurements not the same?
- Why would it be important to use a more exact system of measurement?
- What system of measurement is used in your country?
- Do you know how this system of measurement was developed?