Name: _____ Date: _____

The Cubit and the Wandering Forearm

Circle group

People measured things long before rulers. A builder needed to know how long a wall should be. A trader needed to know how much cloth to sell. With no tools, they used their own bodies.

In ancient Egypt, one unit was the cubit. It was the length of a forearm, from the elbow to the tip of the longest finger. People also used a hand width, a thumb width, and a foot. We still call 12 inches a foot. Horse owners measure a horse in hands.

But arms and feet are not the same size. If one builder had a longer cubit, the walls might not fit. A trader with a long arm could sell less cloth than he said.

The Egyptians fixed this with a standard. They carved a rod to the right length. Workers made copies of it. Now every cubit was the same.

Try it. Measure your desk with your hand spans. Ask a friend to do it too. The numbers will differ. That is why people agreed on shared units.

Questions

1. What did early people use to measure before rulers?

_____

_____

2. What was a cubit?

_____

_____

3. Which unit that we still use is named for a body part?

_____

_____

4. What problem came from using arms and feet?

_____

_____

5. How did the Egyptians fix the problem?

_____

_____

6. Why will your desk count differ from your friend's?

_____

_____

Words to know

cubit: an old unit of length based on the forearm
forearm: the part of the arm between the elbow and the wrist
trader: a person who buys and sells goods
standard: something everyone agrees to use as the correct size

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

The Cubit and the Wandering Forearm

Triangle group

People measured things long before they had rulers. A builder needed to know how long a wall should be. A trader needed to know how much cloth to sell. With no tools, they used the one thing they always carried, which was their own body.

In ancient Egypt, a common unit was the cubit. It was the length of a forearm, from the elbow to the tip of the longest finger. People also used a hand width, a thumb width, and a foot. Those names are still used today. We call a unit of 12 inches a foot, and horse owners measure a horse in hands.

There was a problem, though. Arms and feet are not the same size. If one builder's cubit was longer than another builder's cubit, a wall built by two workers might not fit together. A trader with a long arm could even sell less cloth than he promised.

The Egyptians fixed this with a standard. They carved a measuring rod to the right length, and workers made copies of it. Now every cubit was the same.

You can try the problem yourself. Measure your desk by laying your hand span end to end. Then ask a friend to do the same. Your numbers will probably differ. That is why people everywhere finally agreed on shared units, so a measurement means the same thing for everyone.

Questions

1. What did early people use to measure things before they had rulers?

_____

_____

2. What was a cubit?

_____

_____

3. Which unit that we still use is named for a body part?

_____

_____

4. What problem came from measuring with arms and feet?

_____

_____

5. How did the Egyptians fix the problem?

_____

_____

6. Why will your desk measurement probably differ from your friend's?

_____

_____

Words to know

cubit: an old unit of length based on the forearm
forearm: the part of the arm between the elbow and the wrist
trader: a person who buys and sells goods
standard: something everyone agrees to use as the correct size

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

The Cubit and the Wandering Forearm

Square group

Long before anyone had invented rulers, people were already measuring the world around them. A builder needed to know how long a wall should be, and a trader needed to know how much cloth to sell. Lacking proper tools, they relied on the one thing they always carried with them, which was their own body.

In ancient Egypt, a common unit of length was the cubit, which stretched from the elbow to the tip of the longest finger. People also measured with the width of a hand, the width of a thumb, and the length of a foot. Several of those names survive today. We still call a unit of 12 inches a foot, and horse owners still measure the height of a horse in hands.

There was an obvious problem, however. Arms and feet differ in size from one person to the next. If one builder's cubit was longer than another's, a wall built by two workers might not fit together properly, and a trader with a long arm could quietly sell less cloth than he had promised.

The Egyptians solved this by creating a standard. They carved a measuring rod to the correct length, and workers made copies of it so that every cubit became identical.

You can experience the difficulty yourself. Measure your desk by laying your hand span end to end, then ask a friend to do the same. Your answers will probably differ, which is exactly why people everywhere eventually agreed on shared units that mean the same thing for everyone.

Questions

1. What did people rely on to measure things before rulers existed?

_____

_____

2. How long was a cubit?

_____

_____

3. Which unit that we still use is named for a part of the body?

_____

_____

4. What problem came from measuring with arms and feet?

_____

_____

5. How did the Egyptians solve the problem?

_____

_____

6. Why will your desk measurement probably differ from your friend's?

_____

_____

Words to know

cubit: an old unit of length based on the forearm
trader: a person who buys and sells goods
standard: something everyone agrees to use as the correct size

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

For the teacher: The Cubit and the Wandering Forearm

Each student sheet carries a shape, not a level. The same topic and facts, written three ways.

Circle: The Cubit and the Wandering Forearm

Easier · 173 words · Flesch-Kincaid grade 2.4

1. Their own bodies.
2. The length of a forearm, from the elbow to the longest fingertip.
3. The foot.
4. Bodies are not the same size, so the measures did not match.
5. They carved a rod to the right length and made copies.
6. Your hand spans are not the same size.

Triangle: The Cubit and the Wandering Forearm

This passage · 229 words · Flesch-Kincaid grade 4.3

1. Their own bodies.
2. The length of a forearm, from the elbow to the tip of the longest finger.
3. The foot.
4. Bodies are different sizes, so the measurements did not match.
5. They carved a measuring rod to the right length and made copies of it.
6. Your hand spans are not the same size, so the counts come out different.

Square: The Cubit and the Wandering Forearm

Harder · 255 words · Flesch-Kincaid grade 7.7

1. Their own bodies.
2. From the elbow to the tip of the longest finger.
3. The foot.
4. Arms and feet differ in size from person to person, so measurements did not match.
5. They carved a measuring rod to the correct length and made copies of it.
6. Your hand spans are not the same size, so the counts come out different.