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## DISCOVERING THE HISTORY OF MEASUREMENT THROUGH WORDS

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### WORKSHEET 4

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**Timing:** 2 hours

**Material required:** worksheet 3

**Grouping:** 

#### History of measurement

From Wikipedia, the free encyclopedia

1.a. Find synonyms (similar words) or explanations for each word in **bold print**:

Units of measurement were among the **earliest** tools invented by humans. Primitive societies needed measures for constructing **dwellings** of an **appropriate** size and shape, **fashioning** clothing, or exchanging food or **raw materials**.

Earliest:

Dwellings:

Appropriate:

Fashioning:

Raw materials:

1.b. Something's wrong! The spaces between the words have disappeared! Can you put a line between each word and re-write the sentences correctly?

Theearliestsystemsofweightsandmeasuresseemtohavebeencreatedsometime

betweenthe4thand3rdmillenniaBCbytheancientpeopleslivingbetweenEgyptand

theIndusValley.Theeasternpeoplesachievedgreataccuracyinmeasuringlength,mass,andtime.

1.c. The weight units have been mixed up. Can you put them in the correct order?  
Check <http://www.etymonline.com> to discover the origin of the word *ounce* and why it is abbreviated as *oz*.

The smallest division ever recorded on a scale of the Bronze Age was approximately 1.704mm. Weights were based on **units of 100, 0.2, 500, 20, 2, 5, 10, 50, 0.5, 0.05,**



**200, 1 and 0.1**, with each unit weighing approximately 28 grams, similar to the English ounce or Roman uncia.

**1.d. The paragraphs have been jumbled up. Number the sentences/paragraphs in the correct order**

When it was necessary to compare the capacities of containers such as gourds or clay or metal vessels, they were filled with plant seeds which were then counted to measure the volumes

Early Babylonian and Egyptian records indicate that length was first measured with the forearm, hand, or finger and that time was measured by the periods of the sun, moon, and other heavenly bodies.

When means for weighing were invented, seeds and stones served as standards. For instance, the carat, still used as a unit for gems, was derived from the carob seed.

Other systems were based on the use of parts of the body and the natural surroundings as measuring instruments.

**1.e. Count the number of times the word *Human/s* appears in this paragraph. Can you explain why you think the word appears so often?**

Can you explain why we need human scaled objects? (in your own words).

Can you give more examples of human scaled objects?

**Human scale** means "of a scale comparable to a human being".

Humans interact with their environments based on their physical dimensions, capabilities and limits. The field of anthropometrics (human measurement) is not perfect, but it's still true that human physical characteristics are fairly predictable and objectively measurable. Buildings scaled to human physical capabilities have steps, doorways, railings, work surfaces, seating, shelves, fixtures, walking distances, and other features that fit well to the average person.

The word *human/s* appears \_\_\_\_\_, because -  
\_\_\_\_\_  
\_\_\_\_\_



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## ANSWER SHEET

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### Activity 1.a:

Earliest: first. Dwellings: houses. Appropriate: correct. Fashioning: making. Raw materials: give examples such as iron, crude oil,

### Activity 1.b:

The earliest systems of weights and measures seem to have been created sometime between the 4th and 3rd millennia BC by the ancient peoples living between Egypt and the Indus Valley. The eastern peoples achieved great accuracy in measuring length, mass, and time.

### Activity 1.c:

- 0.05, 0.1, 0.2, 0.5, 1, 2, 5, 10, 20, 50, 100, 200 and 500

"unit of weight," early 14c., from Old.French. unce (12c.), from Latin. uncia "one-twelfth part" (of a pound, foot, etc.), from Latin. unus "one" (see [one](#)). The Latin word had been adopted in Old.English. as ynce (see [inch](#)). It was one-twelfth of a pound in the Troy system of weights, but one-sixteenth in avoirdupois. Abbreviation oz. is from Italian. onza. Also used in Middle.English. as a measure of time (7.5 seconds) and length (about 3 inches). ([www.etymonline.com](http://www.etymonline.com))

### Activity 1.d:

3. When it was necessary to compare the capacities of containers such as gourds or clay or metal vessels, they were filled with plant seeds which were then counted to measure the volumes

2. Early Babylonian and Egyptian records indicate that length was first measured with the forearm, hand, or finger and that time was measured by the periods of the sun, moon, and other heavenly bodies.

4. When means for weighing were invented, seeds and stones served as standards. For instance, the carat, still used as a unit for gems, was derived from the carob seed.

1. Other systems were based on the use of parts of the body and the natural surroundings as measuring instruments.

### Activity 1.e.



Count the number of times the word *Human/s* appears in this paragraph. Can you explain why you think the word appears so often?

The word appears 5 times because it shows the importance of measuring things around us, in relation to us, humans.