


# A SYSTEM OF WRITING

Historians believe that cuneiform was first developed to record farm surplus. Ancient Sumerians used sharp reeds to scratch the records into wet clay tablets. The dried tablets became permanent records.

In 3500 B.C.—the time of the oldest tablets that have been found—cuneiform symbols looked like the things they described. Over time, however, Sumerian scribes developed faster ways to write. They simplified their figures so they could be formed more quickly. Look at the chart on this page for examples.

About 500 signs were regularly used! These signs could also be combined to form more complex words. Egyptian hieroglyphs, cuneiform signs represented sounds and ideas as well as objects. The sign for "arrow," called *ti* (TEE), looked like this: . Since *ti* also meant "life," the symbol could stand for this word too.

## School in Sumer











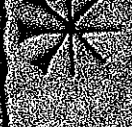




As in ancient Egypt few people could write. Even kings usually could not. It was an honor to be able to go to school and learn to be a scribe. Boys and, very rarely, girls spent years studying in local schools. First they learned how to make clay tablets and reed "pens." Then students practiced over and over how to write the basic signs of cuneiform. Scribes in Sumer so had to study mathematics so they would be able to keep accurate records.

Trained scribes could and did write almost anything. They even wrote love letters for people and sealed them in clay "envelopes"! Scribes also recorded stories, laws, and songs.

The sturdy ancient tablets have survived thousands of years. They have helped historians to piece together a detailed picture of early Mesopotamia.



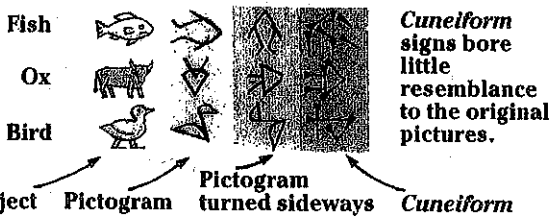
Scribes (left) filled an important role in ancient Sumer. They were record keepers, since most people could not write.

MEANING	PICTURE	CUNEIFORM	
		EARLY	LATER
BIRD			
FISH			
OX			
STAR			
WATER			

This chart shows how some Sumerian symbols changed over time.

The photo on page 108 shows a cuneiform symbol found on this chart. What is this symbol? Is it early or later cuneiform?

## How cuneiform writing developed



At first signs were only used to represent objects. Later they began to represent sounds. This meant that abstract concepts could be expressed.

For example, if you used a system of picture writing in English you could write the word 'belief' like this.



## Understanding cuneiform

Cuneiform was adapted by the Akkadians, Babylonians and Assyrians to write their own languages and was used in Mesopotamia for about 3000 years.

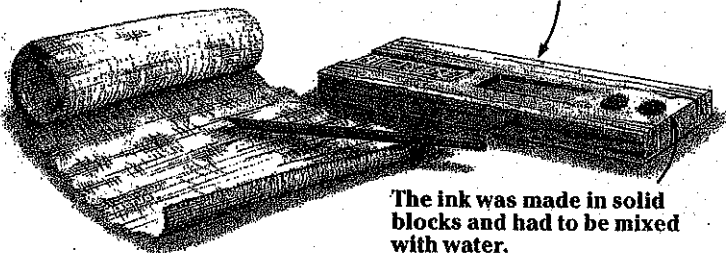
Knowledge of it was then lost until AD1835, when Henry Rawlinson, an English army officer, found some inscriptions on a cliff at Behistun in Persia. They consisted of identical texts in three languages (Old Persian, Babylonian and Elamite), carved in the reign of King Darius<sup>1</sup> of Persia (522-486BC). After translating the Persian, Rawlinson began to decipher the others. By 1851 he could read 200 Babylonian signs.

## Writing materials

The Egyptians wrote with ink and brushes on papyrus, a paper made from papyrus reeds. They also made notes on pieces of broken pottery or flakes of limestone, known as *ostraca*.

Papyrus scroll

Palette with ink and brushes



## Scribes

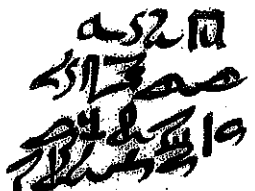
Early scripts were extremely complicated and years of study were required to learn them properly. People specially trained to read and write were known as scribes. These skills brought them power and status. Scribes could get good jobs in temples or in government and were often exempt from paying taxes.



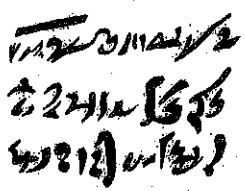
A statue of an Egyptian scribe

## Shorthand scripts

The Egyptians developed two shorthand scripts for daily use. Hieroglyphs were kept for religious and state inscriptions.



The first shorthand script is known as *hieratic* and was in use during the Old Kingdom.



During the Late Period (c.700BC), an even more flowing script evolved, which is known as *demotic*.

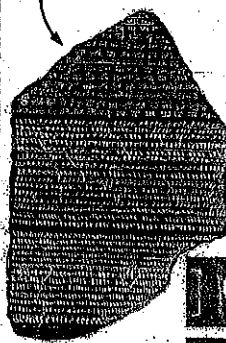
## Deciphering hieroglyphs

The last known example of *hieroglyphs* dates back to AD394. For centuries after that no-one knew how to read them, until 1799 when French soldiers of Napoleon's army unearthed a clue at Rosetta in Egypt. It was a stone slab covered in different kinds of writing – identical texts in *hieroglyphic*, *demotic* and Greek.

The puzzle was finally solved by a French linguist, Jean François Champollion, who published the results of his research in 1822. Champollion deduced that *hieroglyphs* might stand for sounds and letters, rather than objects alone. He built on previous studies which suggested that words inside oval shapes, called cartouches, were the names of rulers.

The Rosetta stone

Champollion first worked out the *hieroglyphs* for Ptolemy, who was mentioned several times in the Greek text.



Ptolemy in hieroglyphs

Ptolemy in Greek



He then went on to construct the name Cleopatra<sup>7</sup>. The two provided the key from which he was eventually able to work out the other *hieroglyphs*.

# Solve Sumerian Math Equations

Name \_\_\_\_\_

Solve the following mathematical equations using the Sumerian number system. Place the number under each Sumerian symbol on the line provided. Refer to the chart to help you decipher the symbols.

A.

$$\begin{array}{ccccccc} \text{III} & + & \text{IIII} & = & \text{IIIIII} \\ | & & | & & | \end{array}$$

B.

$$\begin{array}{ccccccc} \text{IIII} & - & \text{IIIIII} & = & \text{III} \\ | & & | & & | \end{array}$$

C.

$$\begin{array}{ccccccc} \text{IIII} & + & \text{IIIIII} & = & \text{IIIIII} \\ | & & | & & | \end{array}$$

D.

$$\begin{array}{ccccccc} \text{IIIIII} & \div & \text{IIII} & = & \text{III} \\ | & & | & & | \end{array}$$

E.

$$\begin{array}{ccccccc} \text{IIIIII} & \times & \text{IIII} & = & \text{IIIIII} \\ | & & | & & | \end{array}$$

F.

$$\begin{array}{ccccccc} \text{IIIIII} & \div & \text{IIII} & = & \text{IIIIII} \\ | & & | & & | \end{array}$$

G.

$$\begin{array}{ccccccc} \text{IIII} & + & \text{IIIIII} & + & \text{IIII} & = & \text{IIIIII} \\ | & & | & & | & & | \end{array}$$

H.

$$\begin{array}{ccccccc} \text{IIII} & - & \text{IIIIII} & - & \text{IIII} & = & \text{IIII} \\ | & & | & & | & & | \end{array}$$

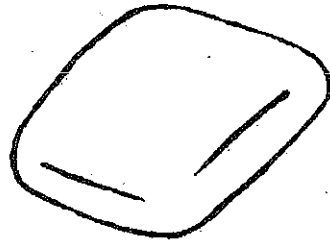
1	2	3	4	5
6	7	8	9	
10	11	12	13	
20	30	40		
50	60	70	80	
120	130			

# HANDS-ON! The Invention of Writing

WRITE ON CLAY IN AN ANCIENT SCRIPT

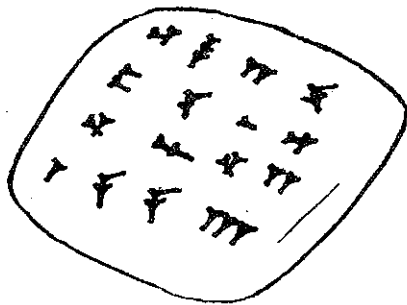
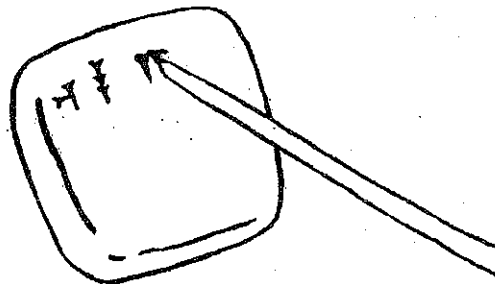
**A Cuneiform "Alphabet"**

A	▶▶	N	▶▶
B	◀◀	O	▶▲
C	▶▶	P	◀◀
D	◀◀	Q	▶▶
E	▶▶	R	◀◀
F	▶▶	S	▶▲
G	▶▶	T	▶▲
H	▶▶	U	◀◀
I	▶▶	V	◀◀
J	▶▶	W	▶▶
K	▶▶	X	▶▶
L	▶▶	Y	▶▶
M	▶▶	Z	▶▶



1. Take enough clay to fit in the palm of your hand and form it into a flat square about an inch thick.

2. Use the chart on this page to find the cuneiform versions of the letters you want to write. Hold the clay in one hand and take a reed or pencil in the other, pressing into the clay to make wedge-shaped marks.



3. Let the clay dry overnight. Pass your tablet to a friend and see if they can decode your message!

**STUDENT STUFF**

*The Invention  
of Writing*