

the priests. Hammurabi's reign was long after writing first appeared in this part of the world.

The writing of the Babylonians was called cuneiform ("wedge-shaped" in Latin) and was a series of wedge-shaped slashes cut into wet tablets of clay with a sharpened reed called a stylus. Have a look at your copy of *Learning About the World Through Modeling* on page 91 for some specific guidance for creating a cuneiform tablet, including phrases to copy.

One of the most important uses for writing is to keep track of one's property and to calculate figures. The Babylonians developed a system of mathematics so that they could make accurate calculations in their engineering, astronomical and agricultural projects.

Wedges pointing down represented numbers one through nine.

Numbers from ten through fifty were wedges pointing left.

For numbers less than sixty, symbols for ten and one were combined. Tens were placed to the left of ones.

$\nabla = 1$ $\nabla \nabla \nabla = 3$ $\begin{matrix} \nabla \nabla \nabla \\ \nabla \nabla \nabla \\ \nabla \nabla \nabla \end{matrix} = 9$
 $\nwarrow = 10$ $\begin{matrix} \nwarrow \nwarrow \nwarrow \\ \nwarrow \nwarrow \nwarrow \\ \nwarrow \nwarrow \nwarrow \end{matrix} = 50$
 $\begin{matrix} \nwarrow \nwarrow \\ \nwarrow \nwarrow \end{matrix} \nabla = 41$
 $\nabla \begin{matrix} \nwarrow \nwarrow \\ \nwarrow \nwarrow \end{matrix} = 82$
 $(1 \times 60) + (2 \times 10) + (2 \times 1)$
 $\begin{matrix} \nabla \nabla \nabla \\ \nabla \nabla \end{matrix} \begin{matrix} \nwarrow \nwarrow \\ \nwarrow \nwarrow \end{matrix} \nabla = 331$
 $(5 \times 60) + (3 \times 10) + (1 \times 1)$
 $\begin{matrix} \nabla \nabla \\ \nabla \nabla \end{matrix} \begin{matrix} \nwarrow \nwarrow \\ \nwarrow \nwarrow \end{matrix} \begin{matrix} \nabla \nabla \nabla \\ \nabla \nabla \end{matrix} \begin{matrix} \nwarrow \nwarrow \\ \nwarrow \nwarrow \end{matrix} \begin{matrix} \nabla \nabla \nabla \\ \nabla \nabla \end{matrix} \nabla = 9,224$
 $(2 \times 3,600) + (33 \times 60) + 44$

An important concept which the Babylonians developed was that of place value. Imagine how confusing counting baskets of grain in a storehouse would be without place value! However, the Babylonians did not have a zero. No mathematical systems in the ancient world had a zero. A zero was used for the first time by Islamic mathematicians in the ninth century (we'll find out about them in seventh grade!). Though they did not use a zero, the Babylonians already knew something was necessary because they left a gap where later people would put a zero. (The Chinese also left a gap for what later became a zero.)

$\nabla \nabla \quad \nabla = 121$
 $(120) + (0 \times 10) + 1$
 gap = 0

The entire mathematical system of the Babylonians was based on sixty. Wedges placed to the left of tens represented sixties. Wedges placed to the left of the tens and sixties represented sixty sixties, or 3600.