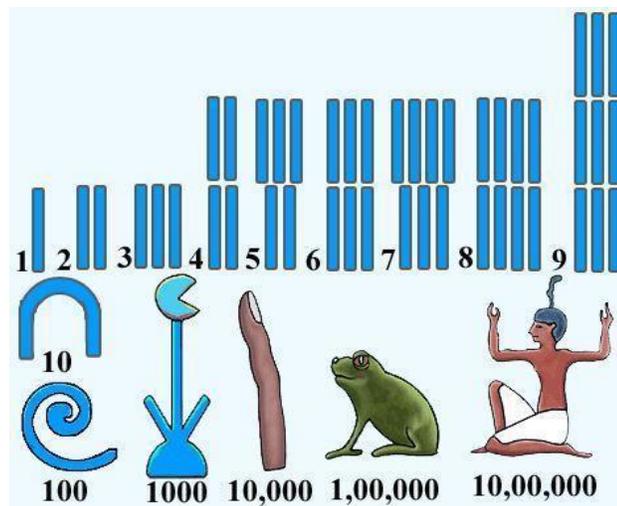




Egyptian Numbers

Name of the object	Egyptian Numbers
Recommended ages (from...)	8 – 12 years old
Thematic areas combined (STEAM)	Mathematics, Art, History
Materials needed	<ul style="list-style-type: none"> ● Plasteline (pack with different colours) ● Plastic scissors, stick or pen to make the shapes
Instructions step by step	<p>Step 1: Choose different colours of plasteline to denote powers of ten.</p> <p>Step 2: Create the different hieroglyphs (1,10,100 etc.).</p> <p>Step 3: Make your own Egyptian Number Board.</p> <p>Step 4: Write the number of the current year using your Egyptian number creations.</p>





Step by step: how to build the "Egyptian Numbers"

Step 1

Time needed: 50 minutes

First, choose different colours of plasticine and an object (plastic knife or pen) to create each shape.



Figure 1: Pack with different colours of plasticine

Step 2

Time needed: 15 minutes

The Egyptians had a base ten (10) system of hieroglyphs for numerals. By this, we mean that they had separate symbols for one unit, ten, one hundred, one thousand, ten thousand, one hundred thousand, and one million.

1. Ancient Egyptians represented the numbers one (1) to nine (9) with a hieroglyph with straight lines. One (1) is represented by a single stroke (two lines for two (2) etc.). To create the number "1", make your plasteline flat before you shape a simple line on it, like in the following picture (Figure 2).

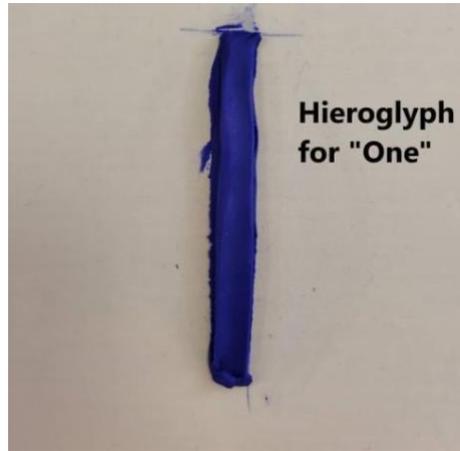


Figure 2: Egyptian Number for "One"

2. To create the number "ten" (10), Egyptians used an upside-down U. Their symbol for ten also meant a "cattle hobble". Roll your plasteline to create the shape, as shown in the following pictures (Figure 3).



Figure 3: Egyptian Number for "Ten"

- The hieroglyph for one hundred (100) is a coil of rope. Roll your plasteline to create the circular shape like the one in the picture below.

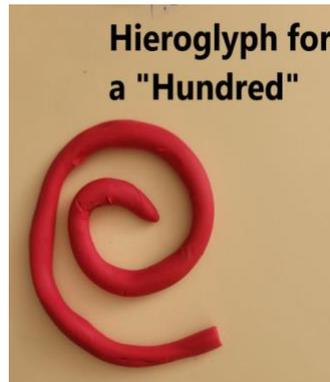


Figure 4: Egyptian Number for "Hundred"

- The hieroglyph for the number "one thousand" (1,000) was a water lily. To recreate this number, first, create the plant's base, then roll your plasteline to make the sprout and the leaves. Shape the flower with your stick and combine the six (6) different parts to create your lily.



Create the plants' base



Roll to create the sprout and



Carve the flower



Combine the parts

Figure 5: Egyptian Number for "One Thousand"

- The hieroglyph for the number “ten thousand” (10,000) was a bent finger, represented in the following picture. Recreate the number 10,000 using the picture below as a reference.



Figure 6: Egyptian Number for “Ten Thousand”

- The hieroglyph for the number “one hundred thousand” (100,000) was a frog (tadpole). Start with creating the frog’s body and then the legs. Make sure the back leg is slightly bent, and don’t forget to add an eye to make it more realistic.



Create the frog

**Hieroglyph for "Hundred
Thousand"**

Figure 6: Egyptian Number for “Hundred Thousand”

7. The hieroglyph for the number “one million” - which also meant many- was the hieroglyph of the god Hey, who was the personification of eternity. To recreate it, cut small triangles for the body and core (like the ones in Figure 7, then roll some plasteline to make the hands facing up (see Figure 7). Add some plasteline of different colours to depict the lappet wig; occasionally, an additional palm branch is worn on the god's head.



**Cut small triangles for the
body and core.**



Hieroglyph for "Million"

Figure 7: Egyptian Number for “One Million”



Step 3

Time needed: 3 minutes

Place all the hieroglyphs you created on a cardboard paper to make an Egyptian number board.



Figure 8: Egyptian Number Board

Step 4

Time needed: 10 minutes

Multiples of these values were expressed by repeating the symbol as many times as needed. This number system makes it very easy to write numbers and to add and subtract numbers. In this concept, try writing the current year using Egyptian Numbers. For instance, to write 2021, you must combine two lilies, two cattle hobbles, and one stroke, as in the following picture.

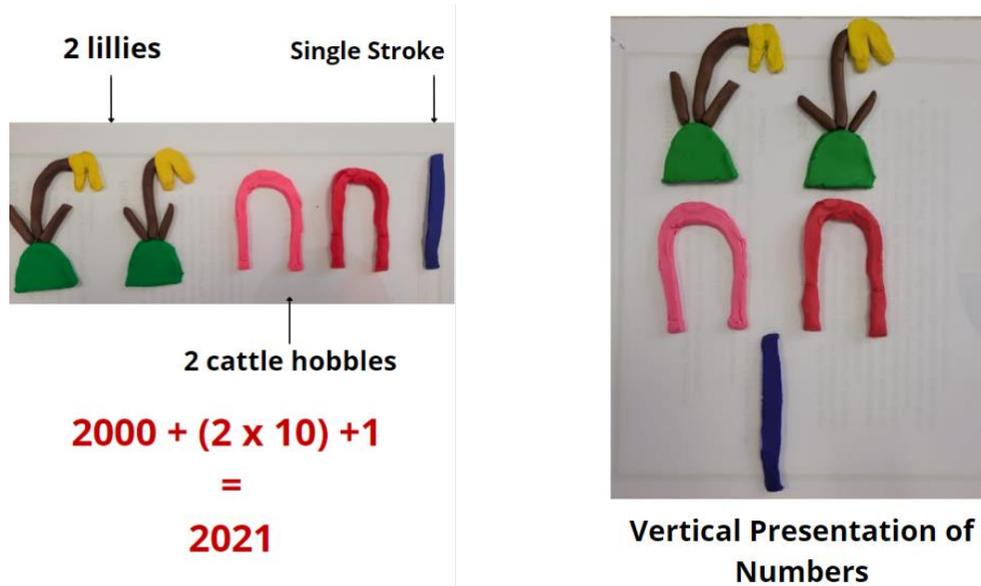


Figure 9: The number 2021 written with Egyptian numbers

Egyptian hieroglyphs could be written in both directions (and even vertically). In this example, the symbols decrease in value and from left to right. On the original stone carving, it is right-to-left, and the signs are thus reversed.

You can try this as many times as you like to see the different combinations made when using Egyptian numbers!