Positional Number Systems

The base ten system with which we are all familiar is great. However, there are times when students will find value exploring other systems in which the position of the digit indicates its magnitude.

Name	**Number of symbols**	**Symbols**	**Magnitude of change between places**	**Value of "10"**
Binary, base two	two	0,1	Powers of two	2
Base three	three	0,1,2	Powers of three	3
Base four	four	0,1,2,3	Powers of four	4
Base ten	ten	0,1,2,3,4,5,6,7,8,9	Powers of ten	ten
Base twelve Dozen, gross	twelve	0,1,2,3,4,5,6,7,8,9,A, B	Powers of twelve	12
Hexadecimal, Hex, base 16	16	0 thru F	Powers of 16	16
Base 60 Used to tell time	Ten used in double digits	00,01,02,03 … 55,56,57,58,59,	Powers of 60	1:00 is one hour, or one minute

Positional Number System Mat

		Units