Teaching and learning mathematics may be viewed as an interactive process of creation of specific domains in the human brains. The domains act later as mathematics knowledge centers. Learning mathematics may be regarded as a development of connections among them and other centers. We refer to this approach as Neuro Mathematics Education (NME) and focus on the role of technology. The NME approach paves the way for development of original teaching tools, strategies, and techniques. In particular, it stresses the principal importance of elimination of mathematics anxiety - the main barrier for success in mathematics. Among the new tools for teaching mathematics are active development of mathematical intuition, using hypnopedia and hypnosis, and instruction delivery in the multifaceted interactive environment, to name a few. The goal of the NME is the creation of a confident mental environment for perception and storage of mathematical information: concepts, notions, rules, techniques, etc. We present evidence that using technology contributes to the implementation of the NME in practice and has a positive impact on perception of mathematics and its applications. (Received September 12, 2011)