Brain imaging studies on academic achievement offer an exciting window on experience–dependent cortical plasticity, as they allow us to understand how developing brains change when children acquire culturally transmitted skills. The nascent body of brain imaging studies reveals that arithmetic recruits a large set of interconnected areas, including prefrontal, posterior parietal, occipito–temporal and hippocampal areas. This network only partially overlaps with what has been found in adults, and clear differences are observed in the recruitment of the hippocampus, which are related to the development of arithmetic fact retrieval.