Spatial representation and thinking have evolutionary importance for any organism that moves around the world, and added importance for tool makers. Spatial representation also helps reasoning in domains that are not obviously spatial, e.g., through the use of graphs and diagrams. Mental spatial transformation abilities are present in a precursory form in infants and toddlers. This talk will examine how spatial thinking develops in early childhood, based on this initial foundation.

The talk will also discuss individual differences, and how they can change with experience. It will conclude with showing how we can take advantage of these findings to promote spatial thinking in preschools, at home, and in children’s play.