

Imagination in play and imagination in learning: Introducing a *STEM PlayWorld*

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Eminent scientists, like Albert Einstein and Barbara McClintock, worked with theoretical contradiction, thought experiments, mental models and visualisation—all characteristics of children's play. Supporting children's play is a strength of early childhood teachers. My research shows a link between imagination in STEM and imagination in play. A scientific PlayWorld, an Engineering PlayWorld, digital PlayWorld and a STEM PlayWorld were developed from the results of this research. Collectively named as a *Conceptual Playworld*, the evidenced based model is characterised by 5 pedagogical practices (Selecting a story for the *Playworld*; Designing a *Playworld* space; Entering and exiting the *Playworld* space; Planning the play inquiry or problem scenario; Planning teacher interactions to build conceptual learning in role. I will show practice examples from the study of a range of PlayWorlds, showcasing examples of practices and children's designs and drawings, videos, and teacher reflections.