

Practice Snapshot

Cannon Hill State School

Exploring how things move

During Term 4, the Prep children at Cannon Hill State School had the opportunity to engage in a teacher-initiated learning experience designed specifically to address physical sciences content from the foundation level of the Australian Curriculum. Broader goals included the development of the children's oral language and higher order thinking skills.

The learning experience began with an immersion phase in which the children were encouraged to freely explore a diverse set of materials that had been carefully selected based on the possibilities they offered for rich inquiry into movement. These materials included water wheels, ramps, pulley systems, balls of all shapes and sizes, wheels, tubing and a hose. As the children engaged with these materials, discussions among children and with their teachers began to generate a series of hypotheses about movement. Here the educator's role was critical, using high level questioning to develop and extend the children's thinking – encouraging them to predict, infer, measure and formulate conclusions.

During this immersion phase, a number of children became intrigued by the impact the angle of a ramp had on the speed with which a marble travelled down it, while later, they experimented with running water on the ramp to determine if its presence influenced the speed and distance travelled. Back in the classroom, opportunities to share what had just been experienced with "elbow buddies" ensured that the children had the chance to formalise their thinking.

As the term progressed, so too did the children's exploration, with a broadened range of materials examined and more specific questions addressed. For example, some children became captivated by aerodynamics, exploring how the shape of a paper plane



influences the distance travelled and its time in the air. Others were more interested in the movement of their own bodies, investigating and comparing their sliding and swinging actions.

Careful documentation of the children's responses, including their articulation of key ideas and hypotheses, provided rich data for evaluating the children's understanding of the identified content descriptor and their ability to express this understanding in action. As part of this process, a movement planning and recording book was created, with the educators carefully noting children's responses and ideas, using these to inform further learning opportunities. In addition, the children had their own individual movement books where they created personal daily records, diagrams and plans about their involvement, thoughts, and learning after each session.