

Practice Snapshot

Lower Tully State School

Solving Addtron's Problems

After reading the children's book *Addtron* from the *Stepping Stones Maths* resources collection, the teacher of a multi-age Prep-1 class at Lower Tully State School decided that the children's engagement with the Australian Curriculum Mathematics Content Descriptor relating to addition and sharing (ACMNA004) might be enhanced by creating an *Addtron's* laboratory play environment. In the book, *Addtron* is a robot who likes to add doubles and can't get enough of them, so the class agreed they would dress up the freestanding printer in their classroom to become this robot.

The children started working in *Addtron's* lab, responding to notes left for them by *Addtron*. When solving *Addtron's* puzzles the children chose from a range of blocks and other concrete materials within the laboratory. They recorded their solutions, using individual blackboards, drawings and photographs. The mathematical challenges provided by *Addtron* varied according to the specific curriculum focus and individual children's mathematical capabilities.

Tension and excitement were added later in the Term when the messages left by *Addtron* revealed that he had begun to make lots of mistakes. The children became worried about him. Was he sick? What could they do to help him? Some chose to re-teach him how to make doubles, some made him get well cards or wrote recipes for medicine to cure him. Others made signs to put up in his lab to help him remember how to solve more complex equations. One boy became the robot doctor and gave him a once over, and the prognosis was not good - rust.

To extend on the exciting and spontaneous connections the children were making between literacy and numeracy activities, the teacher introduced the idea of a robot repairman called Mr Rogers. She shared with the children the bad news that Mr Rogers would be coming next week to take *Addtron* away! The children sprang into action,



determining that everyone should write a letter to the repairman asking him not to take this action. They argued persuasively in letters to Mr Rogers that they could fix him if they just had more time.

With limited time, the children identified ways to re-teach *Addtron* how to add and double, that included providing accurate examples for him to memorise, making charts, and creating a doubles rap and dance which they performed for *Addtron* and the whole school on assembly. Eventually this effort paid off, as *Addtron* slowly began producing accurate mathematical challenges showing that he was well again.

Throughout this series of connected learning experiences, the teacher was able to gather detailed evidence of the children's learning, including work samples that demonstrated their ability to apply mathematical knowledge of addition. Their mathematical understanding was also assessed formally using a written test, while a *C2C Guide to Making Judgements* was used to assess the persuasive letters written to Mr Rogers.