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AN AMAZING RACE



Students are totally absorbed in Lumen Christi's mathematics challenge: The Amazing Race.

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As children darted from stage to stage eagerly chatting about strategies, encouraging and praising each other's mathematical efforts it was clear that this of all school days was one that would be remembered. A day from which we could establish interest and engagement, a day from which we could raise both the profile of mathematics in our school community and in the minds of the students that we teach. What had started as an ambition to host a competition had quickly permeated through the school and taken on a life of its own. Indeed, from little ideas big things grow or in this case from MAV Games Days whole school engagement grows.

In early September 2014, our school, Lumen Christi Catholic Primary School, was fortunate enough to host a Year 6 MAV Games Day. The day was a great success and really helped students apply their knowledge of mathematics in a supportive team environment, where the focus was less about getting the 'right' answer but more about enjoying everything that maths has to offer.

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AN AMAZING RACE

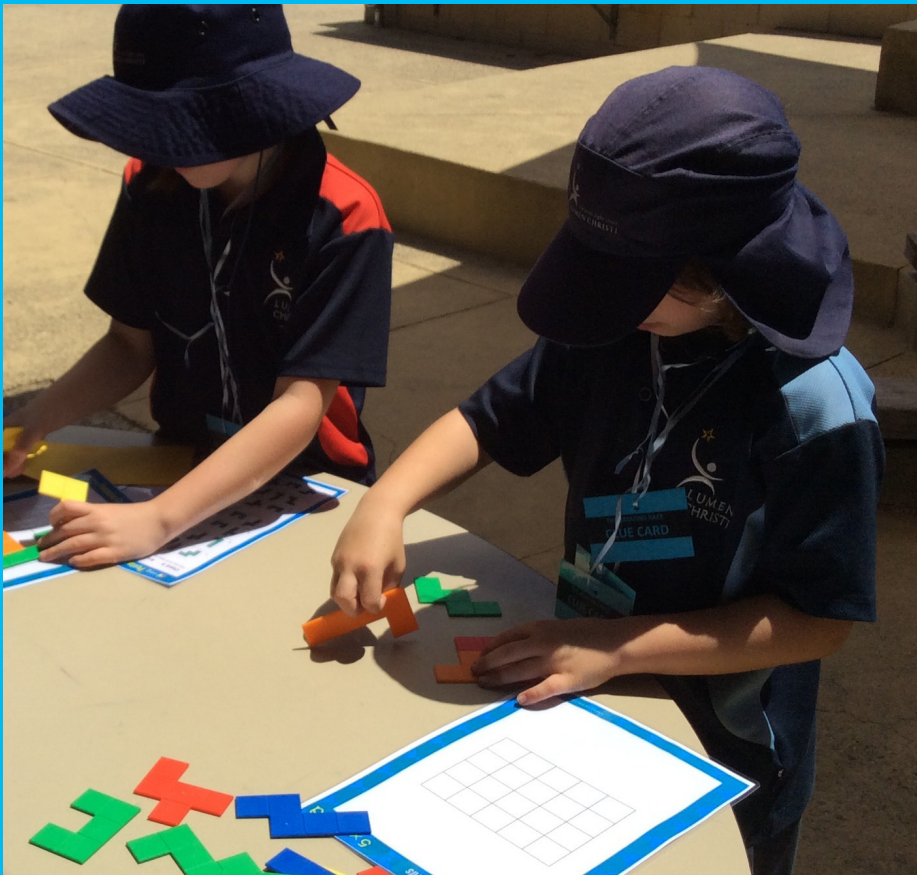
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Students absorbed in a puzzle activity.

Preparations for this day had seen the school host an 'in house' Year 5 Maths Games day earlier in the year. Following a similar format to the MAV Games Day, where teams of four students participate in a series of challenges, this event had the added incentive of involving three adult teams (two teacher and one parent team). The additional challenge of facing the adults not only helped to ensure the success of the day, but really created a buzz around mathematics in the school community.

Even after the buzz of the day had subsided, the teachers in other year levels were still talking about hosting their own special maths day. It was seen as a valuable exercise, one that would raise the profile of mathematics among the students and a way of making mathematics more accessible to parents. However, while other levels wanted to 'have a go' the challenge was evident, in what format could we achieve maximum mathematical engagement as well as strong parental involvement and make use of the whole school? The answer came not from a lofty tomb about mathematics education but rather from the hit TV

show *The Amazing Race*. Could we host a Maths Amazing Race? A race in which teams worked together to solve a series of challenges? The answer came loud and clear 'of course we can!'.

The Amazing Race was an easy sell but coordinators were conscious of building towards the MAV Games Day too and so both were adapted for the special maths day. Mixed ability teams of four were established and the day divided into three rounds. The teams were chosen by teachers to ensure that teams were as fair as possible and had a range of mathematical abilities. Maths buddies were already established in the classrooms and discussions were had as to how teams could work together to achieve success.

Round one was similar to the MAV day and involved teams of students working together to solve a series of multiple choice questions (adapted from the format used in NAPLAN tests). Round two was the Amazing Race and round three was the final team challenge. (See page 6 for more detail).

While the format of rounds one and three were familiar and relatively easy to set up, the middle round the Amazing Race took a little more planning.

The fifteen mathematics stations were set up across the school. Each of these stations required students to complete a task from a different area of mathematics. Stations included measuring distance, comparing capacity, matching facts, following directions, ordering numbers, creating shapes and continuing patterns. Like the show, each station involved a choice of two similar challenges. For example at the comparing capacity station (set in the school sand pit) students had the option of finding and ordering the capacity of five different containers or calculating the number of cups a much larger container would hold. After choosing and completing one of the tasks, students were rewarded with a yellow letter that would include a clue to the location of the team's next challenge.

Parent helpers, student leaders and a few teachers helped to supervise each of the 15 stations. Clear instructions and solutions were provided at each station, which allowed station supervisors to encourage, rather than needing to constantly check the accuracy of student responses. The emphasis was on trying to problem solve as team rather than being right or wrong.

To assist students to complete each challenge efficiently the option of using a clue card was incorporated into the Amazing Race. These blue clue cards (adapted from the television series, *Blue's Clues*) could be used by teams at each station in order to provide them with either additional information or equipment to help them complete their chosen challenge. For example, at a station which required students to order the mass of five unlabelled tins, the clue card gave students the option of using a measuring balance.

Teams began the race at different stations and teams were given an hour to make their way through as many stations as possible in order to accumulate points for their team. Staff members walked the course taking photos and giving out extra clue cards to any teams who were demonstrating effective teamwork, following school rules or were simply in need of some assistance.

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All our stations!

With the stations in place, parent and student helpers organised and a bucket full of enthusiasm the day began.

Round one, which was held in classrooms, began in earnest with teams working through the questions carefully and enthusiastically. It was a sight to behold as the more capable students read questions aloud and the other students, many of whom find mathematics challenging, answered and discussed options, justifying their thinking to each other along the way. This method of working was not instructed to them. The children established this routine themselves and it was with an enormous sense of pride that the classroom teachers looked on. Following the scoring, all students were praised and encouraged for team work and given quick positive feedback about being 'Good Mathematicians'.

The excitement was palpable as the students gathered in the shared learning space for round two. Armed with a yellow piece of paper for all, the coordinating teacher handed out the first clue to each group.

Clutching their clue, a map and brimming with excitement the students took off to

various points in the school to begin their activities. Roving around it was evident that the students were enjoying the tasks. Automatically they were applying past knowledge to new situations, making connections and working interdependently. There were very few occasions in which children had to be reorientated to a task and in fact there was a general reluctance to ask for a clue card or help. They were, in short, determined to succeed.

From station to station the students discussed what mathematics they had used or how they would have done something differently. The parent helpers were impressed and found themselves learning quite a bit. One parent remarked that if she had learned mathematics in that way during school herself that she may have been more confident today - a resounding parent endorsement if ever there was one! As the announcement was made to return to the shared area after the hour there were shouts of joy at completing the challenges and groans of disappointment that it was over.

After lunch the children assembled again for round three. This was adapted for each year

level. The Year 3's looked at establishing a series of numbers in a set while the Year 2's built a boat to specific dimensions that could hold weight. The final hour of any day can be a challenge but engagement remained high and the children persisted well through the tasks. A brain break and run allowed for the helpers to finalise the scores and the prizes given out.

There were prizes for the team that had achieved the highest overall score, the team that worked most effectively together, the best mathematician and the most supportive team member. However, all teams were praised and encouraged for their efforts.

Speaking with students afterwards many commented on how much fun the day was but an equal number said that maths was now one of their favourite subjects and that they had learned so much. Most of the students went home and told their parents and the photos were shared through the class blogs and newsletter.

Lumen Christi Catholic Primary School is an MAV accredited Mathematics Active School.

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