

National Literacy and Numeracy Week 2009 Project Report

Project title: Numeracy Day and Parent Information Workshop
Project description: Students in Year 7 and 8 at Miller Technology High School were involved in a Numeracy Day. The students rotated through activities, guided by KLA teachers who are also members of the schools Numeracy Committee. Each class spent a period involved in Numeracy day, and rotated through three workshops. The activities were aimed at showcasing Numeracy across several KLA's and help students make sense and better understand numerical information in their world. The KLA's that were represented were Mathematics, History, Science, PDHPE, Home Economics and Industrial Arts. Students were given problem solving opportunities, whilst working both cooperatively in a group and individually. It also provided them with opportunities to improve their reading, writing, listening and speaking skills. A parent/community information workshop was also planned to support parents and members of the community identify how they can assist students with their numeracy. This included strategies on how to answer questions, real life activities that can be used to support numeracy, and information on services available to support students with their numeracy skills. This also included the development of a handbook for parents and members of the community on tips to helping your child with Numeracy, as well as the updating and copying of the 'Numeracy Helper'.
Person responsible for project: Jady Walker, Head Teacher Numeracy (PAS)
School, region, diocese: Miller Technology High School South West Sydney Region
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Number of students, teachers, parents, other community members directly involved: <ul style="list-style-type: none">• 150 students, 10 staff members, 1 CLO
Intended literacy and/or numeracy outcomes: <ul style="list-style-type: none">• Development of numeracy skills in identified areas of number, measurement, space and geometry and data• Development and promotion of numeracy problem solving strategies• Raise teacher and parent/community awareness of the importance of students developing effective numeracy skills across all KLA's• Development in students and parents of a positive attitude and confidence with numeracy• Increased profile of Numeracy and Numeracy Committee within the school and community
Evidence of achievement of intended literacy and/or numeracy outcomes: <ul style="list-style-type: none">• Students completed activities and worksheets, covering a variety of numeracy skills with enthusiasm and enjoyment

- The majority of students enjoyed the day, and would like it to continue and expanded on in future years.
- Only negative comment to come from the day from students was that they would have liked to be involved in all of the workshops. Students only attended 3 workshops in their allotted time, when up to 7 were on offer.
- The 15 minute timeframe for each workshop was limiting, with teachers feeling that a longer workshop would have allowed for further investigations and expansion of numeracy concepts
- Teachers gave up there time freely and willingly, with many giving up several preparation periods to be involved in the day. Other staff also covered their colleagues classes so that they could be involved which showed great teamwork and proved what an increasing priority numeracy has within the school
- Students have an increased understanding that numeracy is not a 'maths problem' given that only 2 of the 8 teachers involved were from the Mathematics faculty.
- Attitude of students was noted by many teachers and executive on the day as being as very positive, and this has continued in the weeks following Numeracy day.
- Proposal for a similar day has been suggested with the concept to be expanded on to involve more students for a longer period of time.

Other information:

The History workshop involved creating a timeline dating from 3800BC to present day on toilet paper. In this process one sheet of paper represented 100 years, and students had to mark off many important dates along the timeline.

The Science workshop looked at two problems: the first being why ice cubes float and hence the density of both water and ice. The other being the gas produced by bottles of soft drink at different temperatures to see which produced the most gas and hence blows the balloon up the most.

Water conservation was the topic of the day for the Industrial Arts workshop, looking at ways to conserve water, and the differing amount used or saved by different activities. This was also helped by information from Sydney water.

The home economics workshop was a big hit as it involved the mathematics/numeracy around food preparation and the sharing of portions. Pikelets were baked and eaten and cordial of differing strengths tried and tested.

Space and Geometry was the strand looked at the two Mathematics numeracy workshops. One was looking at solids and creating these with straws and blutack. The other was creating solids from polydrons and looking at the tangrams.

The PDHPE workshop involved looking at the student's individual fitness levels, with heights and weights taken, strength measured and heart rates. The students loved increasing their heart rate with a friendly although very competitive game of musical chairs.

NUMERACY IN FOOD

WORKSHEET

2/9/09

1. Mrs Singh brought a bag of candy to her class. There were 72 candies in the bag. She gave each child in her class three lollies. How many students were in her class?



2. $\frac{1}{3}$ C cordial + _____ C water = 1 C _____.



3. Express the above equation to decimal.

4. $\frac{2}{5} + \frac{3}{5} + 1 + 1\frac{1}{5} =$ _____.



5. CONVERSIONS (Hands on activity) Measuring

1 C = _____ ml

$\frac{2}{3}$ C = _____ ml

$\frac{1}{4}$ C = _____ ml

$\frac{1}{2}$ C = _____ ml

$\frac{1}{3}$ C = _____ ml

My Fitness Information

Name _____

Height _____

Weight _____

Body Mass Index (BMI) $= \frac{(\text{Height})^2}{\text{Weight}}$
= _____
= _____

Hand grip Dynamometer

Left Hand _____ Ranking _____

Right hand _____ Ranking _____

BOYS	RATING	GIRLS
Below 15	Poor	Below 12
15-23	Fair	12-17
24-32	Average	18-23
33-41	Good	24-31
41+	Excellent	32+

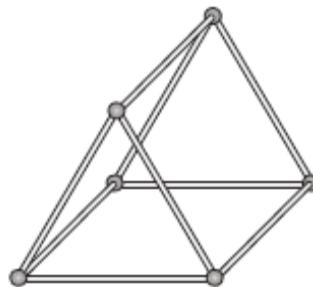
Pulse Rate

	6 Seconds	10 seconds	60seconds
Before exercise			
After exercise			

Making solids from straws

Use the straws and Blu-tack provided to construct the following solids

1. Cube
2. Triangular prism
3. A pyramid
4. A solid with 10 triangular faces
5. A solid with 4 vertices and 4 faces
6. A solid with 12 edges
7. Any solid of your choice





Feedback about making grants available for such projects: The grant was a huge part in making the day a success. With a significant number of students involved in the day (all Years 7 and 8), a number of different workshops were required and this grant meant that casuals could be hired to release staff. Whilst staff were happy to donate their time to prepare for the day, the grant also allowed for the hiring a casual teacher on the following day to 'pay back' the staff for all their hard work. Although only one period was returned, when many more had been donated, all staff were appreciative of the time.

It was also a great help in the purchasing of resources from equipment needed to treats and class prizes. All of this combined meant that the day was a huge success, and increased student enjoyment and participation.