## Project Report

**Project title:** Time in the Bush

**Project description:** Small Schools Numeracy Day integrating technology within each stage, focusing on Working Mathematically.

**Person responsible for project:** Helen Sturman

**School, region, diocese:**
Small School Network- Riverina
Beckom, Matong, Grong Grong, Ganmain, Narrandera East Infants Schools

**Contact person’s email:** [Helen.sturman@det.nsw.edu.au](mailto:Helen.sturman@det.nsw.edu.au)

### Number of students, teachers, parents, other community members directly involved:
- Students – 210
- Teachers- 15
- parents- 25
- community members- 20

### Intended literacy and/or numeracy outcomes:

- **MES1.5** Sequences events and uses everyday language to describe the duration of activities.
- **MS1.5** Compares the duration of events using informal methods and reads clocks on the half-hour
- **MS2.5** Reads and records time in one-minute intervals and makes comparisons between time units.
- **MS3.5** Uses twenty-four hour time and am pm notation in real-life situations and constructs timelines.
- **MS4.3** Performs calculations of time that involves mixed units
- **WME1.2** Uses objects, actions, imagery, technology and/or trial and error to explore mathematical problems.
- **WMS1.2** Uses objects, diagrams, imagery and technology to explore mathematical problems.
- **WMS2.2** Selects and uses appropriate mental or written strategies, or technology, to solve problems.
- **WMS3.2** Selects and applies appropriate problem-solving strategies, including technological applications, in undertaking investigations.
- **WMS4.2** Analyses a mathematical or real-life situation, solving problems using technology where appropriate

### Evidence of achievement of intended literacy and/or numeracy outcomes:

- Attached day plans (below).
Feedback about making grants available for such projects:
Provides a wonderful opportunity for small schools to get together to explore maths and put working mathematically into a wider context.

Maths in the Bush Small Schools Day Program

Stage 3
Outcomes to be covered

- MS3.5 Uses twenty-four hour time and am and pm notation in real-life situations and constructs timelines.
- MS4.3 Performs calculations of time that involves mixed units
- WMS3.2 Selects and applies appropriate problem-solving strategies, including technological applications, in undertaking investigations.
- WMS4.2 Analyses a mathematical or real-life situation, solving problems using technology where appropriate

Key learning Areas

| KEY IDEA 15 | Draw and interpret a timeline using a scale |
| KEY IDEA 14 | Compare various time zones in Australia, including during daylight saving |
| KEY IDEA 13 | Convert between am/pm notation and 24-hour time |
| KEY IDEA 16 | Use timetables involving 24-hour time |

Warm up activities

In pairs brain storm as many facts as you can about time measurement.
Develop a list of time facts.
Develop an understanding of all the correct terminology.
Students communicate correct terminology i.e. hour hand, thirteen hundred hours, o two hundred hours, EST, CST, WST,
List all the different things a watch can do in groups of four. Bring the list together.

Working mathematically - analysing and communicating
Imagine you meet someone who has never seen a watch or a clock and who has never heard of the idea of measuring time. Work out a successful way to explain the purpose of your watch to this person. Draw and write an explanation. –make an analogue or twenty four hour digital clock.
What questions do you think the other person might ask you?
Are there any questions you would like to ask them?
What do you think may happen if there were no clocks or watches in the world?
Would it really matter?

GROUP ASSIGNMENT for the day ... this can be presented on cardboard, power point, orally how ever the group decides, IWB, laptops (we only have three but maybe you have some you could bring?)

Time in another place.
In a world of super naturals time has stood still for 100 years but suddenly everyone awakes. For the society to function they need to determine what time it is, set up some timetables and develop a timeline of events up until this day.
The super naturals need your help.

A timetable for the first week for the Super Naturals would be helpful. This needs to be in 24 hour time- listing everything they need to complete from when they wake up until they go to bed at night.
The city tower needs a new clock which will help them tell the time- they have asked you to invent one.
As this is the head city of their country the mayor requires a map of the country which shows the different time zones- but as he is rather silly he needs a set of clocks which show what time it is in each town across his country when he gets out of bed each morning. You are required to draw the country showing the time zones and a set of clocks which show the time in each town when the mayor steps out of bed.
To help the super naturals remember what has happened in the past you need to write up a timeline of events which occurred during the 100 years of time standing still.
List the questions you think the Super naturals may ask you about all these time measuring devices.

In groups complete the above problems using Newman’s strategies.
What are these problems about?
What is the first question being asked?
How are you going to solve it- talking out loud with team members…write down what to do ... complete task.

Working Mathematically
Applying strategies;
Drawing diagrams
Use a table
Trial and error

Present project to group when completed.

Reflect
How can we improve the outcomes?
Provide feedback to each group
Complete self assessment task.

Maths In the Bush Day
Wednesday Week 6 Term 3 2009

Early Stage One
Matong PS - 43 children

Timetable
9.15 – Playground Play
9.30 – Fitness/ Getting to Know You Games/ Organisation/ Official Welcome
9.50 – Maths Trivia
10.00 – Session One
11.00 – Recess
11.30 – Session Two
12.30 – Lunch
1.00 - Session 3
2.00 to 2.30 – Schools begin departing – Have fruit break and free-play, collect all belongings.
2.30 - Relays /Playground Games / Circuits / DVD if weather is inclement
3.10 – Bus Lines

NES1.1 Whole Numbers
NES1.2 Addition and Subtraction
NES1.3 Multiplication and Division
MES1.4 Mass
MES1.1 Length
MES 1.2 Area
SGES1.3 Position
PAES1.1 Patterns and Algebra
WMES1.2 Applying Strategies
WMES1.3 Communicating

Getting to Know You Games
- Find someone who..
- Numbers/ Shapes – Form groups of the number/ shape called
- Group Organisation

Maths Trivia – In three groups with an adult helper

Station 1 – Valerie McKelvie and Sarah Presker – Stage One Classroom
Game – Number Circle (Ref red cards) (Number)
Toy Touch (Sorting and Mass)
This is as long as .. Ref: red cards (Length) Find objects in relation to your toy
This is as heavy as.. ref: red cards (Mass)
Teddy walks the plank game (Position and Number)
What will I wear? (Sorting)
Doll Patterns (Patterns and Algebra)
More or Fewer? (Number)
Where’s Teddy sleeping? (Sorting)
Shape Turtle (2D space)
Game – Jumbo Dice

**Station 2 – Karyn Jenkins / Corrine – Library**
Game – Body Numbers Ref: red cards (Space)
Sorting Pictures Toy catalogues (Sorting)
Number Toy Match (Number)
Toy Concentration (Number)
Dolls’ clothes (Patterns and Algebra)
Old MacDonald 1 & 2 (Problem Solving/ Number)
Toy Tea Party (Number, Position)
Game – Snap +1/-1

**Station 3 – Karen Babbs / Judith– Playground / Stage 2/3 Classroom**
Game: Take a step - Ref Maths games (Length)
Counting Ball (Number)
Teddy Race (Number)
Toy Follow the leader (Position)
Ramp Races (Toy Cars) (Problem Solving/ Length/ Number)
Sorting and Naming ref p.22 Outdoor Activities (Length)
On the surface p. 24 Outdoor Activities (Area)
Different Perspectives Ref page 13 Outdoor Activities (2D space)
Game – Playing Statues ref p. 21 Outdoor Activities (Position)

If weather doesn’t permit outdoor activities ...
Alternative activities for Station 3
1. Maths Games – Rotations
   - Snakes and Ladders
   - Toss and Add/ Number Recognition Games
   - Ten Pin Bowling (Subtraction)
   - Maths Games on Computers (eg Count Us In)
   - Dominoes
2. Repeating Patterns
3. Playdough – 3D shapes and cross sections, form numbers
4. Shoes, Shoes, Shoes
Find Someone Who

Stand next to someone who...

- Has ears

- Has the same size foot.

- Is the same age.

- Has ten toes.

- Has the same number of brothers and sisters.
- Is the same height.

- Has a different sized hand to you.

- Comes from a different school to you.

- Is in kindergarten.

- Has a nose.

- Has almost the same colour hair.

- Has different colour hair to you.

- Has a different colour uniform to you.

- Has one head and two feet.

- Goes to school.

- Is the opposite gender.

Dear Karyn and Karen,

Please find following organisation for our upcoming Maths Day together.

Maths In the Bush Day
Wednesday Week 6 Term 3 2009

Early Stage One
Matong PS - 43 children
I have allocated activities to each of you. The children will rotate through the three stations, so we will just need to run the same activity station three times. We should each have a helper attached to our groups.

I have deliberately planned for a lot of activities so you can choose/structure your session as you see fit.

Please organise copying and any specialist resources required for your activities. I will do the same and collect up anything we have at Matong that could be of use in your stations. If you need to purchase anything (eg for the tea party), please bring your receipts so we can reimburse you.

I have asked that some of our kids bring in toy cars for the ‘Ramp Races’. If you have any, please bring a couple in case. Do you have any more toy farm animals?

Please pre-organise your children into 3 groups for the best ‘mix’! Name tags would be great please.

I will buy some apples and oranges for fruit break.

Please send home the following note (or similar) with Kinder students this week.

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**Maths In the Bush Day**

*Wednesday Sept 2nd - Week 6 Term 3 2009*

Kindergarten (Early Stage One) Students will be working at Matong Public School for this special Maths Day. Our maths lessons will centre on the theme ‘TOYS’. All kindergarten students are asked to bring along ONE toy. Please ensure this is a toy they are happy for everyone to share for the day. Every care will be taken to ensure the ‘safety and well-being’ of the toys, but each student will be ultimately responsible for the welfare of their toy. Please label your child’s toy with the owner’s name and please don’t send anything too precious!

Students may also be involved in activities involving foods. Please notify supervising teachers of any food allergies prior to the day.

Regards
Valerie McKelvie - Matong Public School

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**Maths In the Bush Day**

*Wednesday Week 6 Term 3 2009*

Early Stage One
Matong PS - 43 children
**Before school**
- If weather is cold, organise lunch area for trivia
- Gear for trivia
- Boxes labelled with group names
- Set up PA System/ Lectern
- Balls from sports shed
- Relays Gear
- Talk to Kerry re: Staff function

**Timetable**
9.15 – Playground Play – name tags on Kinder.

9.30 – Getting to Know You Games/ Organisation/ Official Welcome

- **Getting to Know You Games (Whistle)**
  - Find someone who.. (laminated)
  - Numbers/ Shapes – Form groups of the number/ shape called

- **Official Welcome**
  - Welcome to all of our teachers and adult helpers. I am Miss McKelvie and I’d like to introduce you to the rest of the staff who will be helping you today...
    1. Mrs Jenkins/ Mrs Maver
    2. Mrs Beaumont
    3. Miss Presker
  - Important places for you to know in our school are the weather shed, toilet block, library, lunch area, Stage 1 and Stage 2/3 classrooms.
  - Out of bounds areas include behind the bubblers and toilet block and other buildings. Classrooms are out of bounds during playtime sessions. There will be no computer time for Stage One today.
  - Please don’t play in the toilets.

- **Group Organisation**
  Everyone will be organised into 3 groups. You will stay in the same group all day but move from one area/ room to another to enjoy all the different activities with all of the different staff members here today.

  Our theme for today is TOYS and I am pleased to see so many toys are here to share in the fun. REMEMBER that it is important that your toys share in the activities in the classroom. REMEMBER that it is your job to look after your toy and your job to make sure your toy goes home with you at the end of the day. I don’t want any sad toys here all night crying because they can’t find their owner. At the end of each session, you will be asked to put your toys in a tub for safe keeping until playtime is over, that way we won’t lose any toys in the playground.

  The most important thing for you to remember that today is all about two things – Learning Maths and Having Fun! You will be able to do both of those things if you are on your very best behaviour and join in with all the activities in a positive way.
Let’s organise our teams:

**Maths In The Bush Teams**

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<th>Terrific Teddies</th>
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</table>
9.50 – Maths Trivia Quest
- 3 teams → Attach helpers to each team
- 3 pencils, Answer Sheet on a Clip Board
- Pink Question Cards – Ask 20 questions

10.00 – Session One will run until 11 am then we will break for recess. At the end of recess line up back here in your team lines, ready for the next session.

11.00 – Recess - 11.00 - 11.15 - Valerie (eating)
   11.15 – 11.30 - Sarah (play)

11.30 – Session Two

12.30 – Lunch - 12.30 – 12.45 - Karyn (eating)
   12.45 – 1.00 - Tamra (play)
   Cut up fruit/ Gear for relays/ Whistle

Prior to Session 3 Official Thanks for coming and to all of our helpers. Enjoy your last session. Schools will begin departing at the end of the last session. Remember to collect all of your things.

1 p.m – Session 3

2.00 to 2.30 – Schools begin departing –
   - Have fruit break and free-play, collect all belongings.

2.30 - Relays /Playground Games / Circuits / DVD if weather is inclement

Break into 6 teams of 7
- Overs/Unders – with bean bag
- Corner Spry – with beanbags
- Relay – run up and back to half way line
- Ride a cricket bat
- Bounce a ball
- Balance a bean bag
- Keep bean bag between your knees
- Keep bean bag under your chin
- Balance BB on bat
- Hop
- Skip
- Run
- Jump
- Skip with a rope (or swing)
- Crab Crawl
- Soccer dribble
- Caterpillar walk – shorter playing field

3.10 – Bus Lines