



Mathematics *matters*

OUR AIM IS TO SUPPORT AND ENRICH PRIMARY MATHEMATICS.

The Mathematics Support Programme for 2011 – 2012 had 5 Targets. These were:

- up skilling Maths Support Team.
- understanding the reality of the Teaching of Maths in our classrooms.
- identifying strengths and needs.
- developing a national strategy to address strengths and needs.
- developing the necessary tools and protocols to implement this strategy.

A GENERAL OVERVIEW

Some initiatives undertaken by the MATHEMATICS SUPPORT TEAM SCHOLASTIC YEAR 2011-2012

- All of the Mathematics Support Teachers (MSTs) did the Let Me Learn Professional Development
- Attended NUMICON Workshops
- Attended workshops regarding Assessment for Learning
- Supported various Maths Lessons within / outside classrooms
- Had regular meetings to share readings, experiences and resources and to brainstorm for more new ideas
- Promoted good use of Abacus Scheme
- Organised 21 Mathematics Workshops for Parents
- Participated in SDP, Professional Development (PD) sessions and Curriculum Time
- Launched the superTmatik Mental Maths Championship in the Primary
- Participated in Council of Heads (C.O.H.) meetings
- Assisted Schools in organising Maths Resources
- Assisted Schools in Assessing Maths
- Trialled Checklists produced by the team last year
- Promoted Mental Mathematics Resources
- Set up a Mathematics Club
- Organised themed Maths is Fun Days
- Participated in TV programme 'Sellili'
- Created various resources, including IWB resources
- Maintained a website
- Introduced the idea of Maths Trails in the Primary
- Is evaluating ABACUS EVOLVE software



The Mathematics Support Team has always given priority to:

- teacher support.
- curriculum management.
- TEAM teaching.

Melanie Casha Sammut
Education Officer
Primary Mathematics



ONLINE

Download
IWB activities



Various activities and duties are attached to my role as a Maths Support Teacher. These include the planning and carrying out of Maths Activities in classrooms with the collaboration of class teachers; creating suitable and attractive teaching resources such as Interactive Whiteboard activities; organising outdoor Mathematics activities and meeting parents during workshops on Mathematics in the primary. All of these activities are carried out in order to reach our main target, i.e. promoting meaningful and engaging Mathematics learning among pupils. However, another interesting aspect pertaining to my role is taking part in PD sessions with teachers.

Throughout the last scholastic year 2011—2012, I have been working in various schools within St. Clare College. It has been quite an exciting year, as it marked the introduction of the Interactive Whiteboard in all primary classes. Newer ICT teaching resources enable us teachers to reach more pupils by providing them with varied teaching approaches which are more interactive as well as more appealing to our pupils. The IWB is a helpful tool which supports the learning process, enabling the teacher to instantly access different forms of media such as video clips, audio, pictures and the internet, in order to provide a more enriched, effective and relevant learning experience to all pupils.

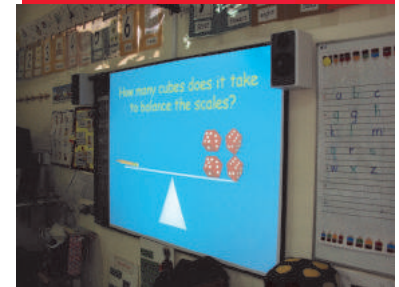
As with everything else, a new resource demands time, training and effort in order to be introduced successfully in the classroom. Teachers need to be empowered and supported in making the best use of technology. It has also been a new challenge for me to learn how to use and prepare IWB teaching resources. But after a couple of hours training, coupled with a number of hours experimenting with the software, reading about it and discussing it with my colleagues, I have managed to start creating my own IWB Maths Activities! Feeling proud of my achievement, I started carrying out these activities in the classrooms. Pupils interacted immediately with the IWB and are able to carry out the activities requiring a few technical tips. I

Professional Development Sessions

enjoyed sharing with other teachers and giving them tips on how to include IWB activities in their Maths Lesson. A Head of School asked me whether I could allow more time on supporting teachers by taking part in a Professional Development Session which targets specifically the skill of creating and using IWB during Lessons. I took the opportunity to collaborate with the e-Learning Support Teacher and together we organised two PD sessions on how to create IWB activities and how to include such activities in the lesson.

During the first session we looked at the most important features of the software which teachers use on their laptops when connected to the IWB. I focused specifically on the i-Learn Maths Toolbox software and the Starboard software. We looked closely at the various features they have and the tools which can be used for teaching Maths topics such as number, place-value, measure, shapes, weight, etc. The software provides interactive number grids, large scales and rulers, clocks with moveable hands, interlocking cubes, a function machine and many other interactive tools which can be instantly accessed on the IWB and used to assist the learning of important concepts and skills in Mathematics. Throughout the second PD session, we allocated time for teachers to create their own IWB activity while having our direct feedback and support so as to facilitate the experience.

Sharing tips and practice with other teachers has been a challenging and yet a very rewarding and enriching experience for me. Teacher sharing and teacher talk is an important component in our professional development. Although organised time such as PDs can ensure that such sharing takes place, more on going support and collaboration are important in order to keep on learning from each other, improve on our own teaching skills and ultimately provide quality teaching and learning in our schools.



The Mathematics Support has created a number of IWB activities within the parameters of the Primary Mathematics Syllabus.

Download these IWB activities and adapt them according to your needs.

<http://primarymaths.skola.edu.mt/>



ELAINE MUSCAT
Mathematics Support
Teacher



Supporting Mathematics Lessons

Mathematics is all around us. There is no escaping from Maths. Whether cooking our food, estimating measures, calculating time or even buying at the supermarket, we are all the time doing Mathematics. So it's very important that children see Mathematics fun and meaningful because Mathematics is a basic skill.

Teachers should plan lessons which are relevant to the children's everyday lives, otherwise when they come in the classroom they will find the subject boring and uninteresting. When the teacher connects a Maths topic to the child's everyday life experiences, s/he is helping the child to gain interest in the topic thus helping her to see Mathematics more meaningful.

Planning has great benefits both for the teachers and the learners. Teachers should have a set of objectives to reach by the end of the lesson. Learning outcomes help students identify what is expected of them in that particular lesson. It also helps the teacher to assess students' progress. Our goal for students is learning and if students don't know what they should be able to do by the end of lesson then it will be difficult for them to reach that goal.

In the introduction of the lesson, it is beneficial to use quick mental warm-up activities. These help the teacher identify the students' mastery of a particular topic. Games are a great tool for teaching Mathematics. Not that they are only fun, but they also help in reinforcing Mathematical concepts and skills. There are common games which one can easily prepare and which can be easily adapted to different levels and abilities of the children. Games like Snakes and Ladders, Snap, Bingo and Dominoes may be a good resource in a Mathematics lesson. Nowadays, we are all aware of the increased usage of computers in the world. ICT is an effective tool and computer games should also be integrated in the Maths lessons depending on the age of the group and lessons being taught.

Working in groups or in pairs is beneficial for children who struggle in Maths. Students may be more likely to ask questions when working in small groups. Moreover, students gain a lot from another students' explanation than the one offered by the teacher. Working in groups involves differentiated work. This approach builds interest and understanding based on the needs of the individual student. It also ensures that teachers meet each students' individual needs.

Maths is a challenging subject and most children love to be challenged. The more lessons are fun, the more enthusiastic the children will be!

Just believe in yourself and never, ever give up!!



ONLINE

Download MATHS TRAILS



Maths Trails offer huge potential for learning experiences at all ages. The scope is endless and trails can be tailored to fit into certain topics, or include a whole range.

Have a look at the Maths Trails constructed and actually carried out by the Maths Support Teachers.

<http://primarymaths.skola.edu.mt/>

MARIA GRIMA
Mathematics Support
Teacher



Mathematics Workshops for Parents

During this scholastic year 2011-2012, the Maths Support Team has organised a substantial number of Mathematics Workshops for parents of children in Primary Schools. These were held in various schools around Malta, not only in those schools where the MSTs are currently giving their support, but also in other schools pertaining to other colleges. In these workshops, parents worked on Mathematical Methods and Strategies, Mental Mathematics and Mathematics at Home.

The main aim of these meetings was to help parents become more familiar with the methods and strategies currently promoted though the Primary Mathematics Syllabus and supported by Abacus scheme.

As a team we felt the need to address comments such as: “ these methods are *too complicated for a child to understand*”, “*it’s better if the old traditional methods are implemented as they are simpler and concrete and it does not take too much time to work a sum*” and “*what’s the use of learning all these methods when they are going to use the calculator at secondary level?*” During one of the sessions in the workshop we went through most of the methods and strategies children are familiar with at school and we compare these to the traditional methods. In so doing we tried to help the parents understand that by exposing their children to these different strategies and methods will help them strengthen their number sense. These will also allow the child to adopt the methods or strategies that s/he is confident with to solve Mathematical routine or non routine problems.

In another session, the MSTs explained how Mental Maths is taught at school. They also emphasised the importance of the five to ten minutes mental starter in each lesson. Moreover they helped the parents understand the Mental Mathematics exam paper and how the Mental Mathematics exam session is carried out. Finally, in the third workshop parents were presented with various ways on how parents could help their children with Mathematics at home and outdoors.

Parents participated eagerly in these workshops by doing hands on activities, such as: writing different combinations using the three digit number on a car number plate and then putting these numbers in order; estimating the total cost when presented with a bill in a restaurant; sorting a number of recycled bottles in two groups – more or less than one litre - and then putting them in order from the smallest capacity to the largest; finding ways how to use the game of Dominoes or two dice to revise doubles, multiplication, addition, number patterns and making ten.

The workshops proved to be a success, as the parents appreciated the MSTs’ help and suggestions and were eager to refer to the Mathematics primary website – primarymaths.skola.edu.mt.

The Mathematics Support Team strongly believes that if parents develop a positive attitude towards the learning of Mathematics, it will also impact on the teaching and learning in our Primary classrooms. Equipping parents with the necessary skills to support their children was the ultimate aim of these workshops and we as MSTs think it was a successful and fruitful experience!



ONLINE

Download
The Primary
Calculation
Strategies



All the calculation strategies (addition, subtraction, multiplication and division) promoted by the current Mathematics Syllabus can be downloaded from

<http://primarymaths.skola.edu.mt/>

There are also some fun activities that can be done at home or outdoors to support the learning of Mathematics.

MARIA SPITERI
Mathematics Support
Teacher



SuperTmatik 6th International Mental Math Championship 2011-2012

This scholastic year all the primary schools of St Theresa College decided to register the Year 3 classes to participate in the superTmatik 6th international mental maths championship for the first time.

The objectives of this championship are:

- To promote interest in Mathematics
- To develop skills in number and calculation
- To reinforce the learning of Mathematics through play
- To discover and celebrate talent in mental Mathematics

This competition is aimed for pupils attending state or private schools and pupils who are six years old or more can participate. The pupils who participated from Saint Theresa College fell under Category 2 and so played in Level 1.

Following the school's registration the school received 12 kits of mental Mathematics cards on loan in order to train the participating pupils to gradually learn the championship and game rules.

A draw to decide who will compete against whom was held for the intra-class competition to commence where pupils competed in pairs with the winner of each pair proceeding to the next stage to finally have a class champion and first runner up.

Then an elimination process was carried out among class champions and first runners-up of the same age category. Once again a draw decided who will compete against whom to finally have a school champion and first runner-up.

The champion and first runner-up for the school then participated in the Grand online Final.

Online orientation sessions were held between the 16th and 24th of April 2012 with the intention that the pupils will get used to the superTmatik online and to the type of test provided in the Grand online Final.

The Grand online Final took place between the 25th of April and the 10th of May. The online competition consisted of three attempts to achieve the best time on the superTmatik online test. The three attempts were done on the same day at 10 to 15 minute intervals. Only the best result of each pupil was used for final ranking on the superTmatik 2012. The results were published on the 14th of May 2012.

About 212 000 students from 50 countries participated this year. The participants from Saint Theresa College did very well, two of whom, ranked in the 56th and the 69th place respectively, thus receiving an official TOP100 digital superTmatik certificate.



ONLINE

The superTmatik Mental Math Championship



You can get to know more about the superTmatik championship on

<http://www.eudactica.com/>

Overall, Malta has obtained a 7th place in this year's championship. There were 52 participating countries.

Who do you think earned the 1st place?

AMANDA CILIA
Mathematics Support
Teacher



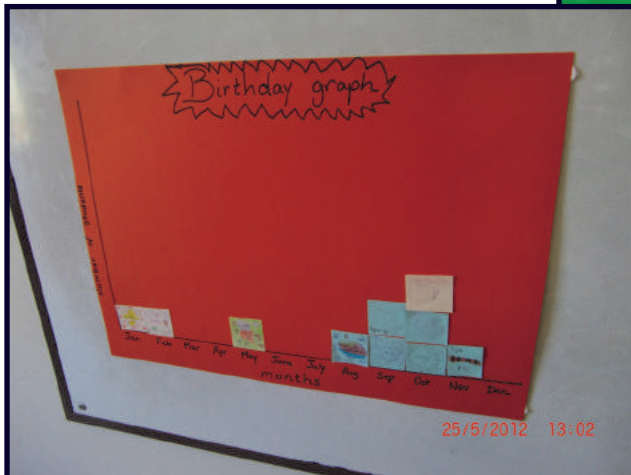
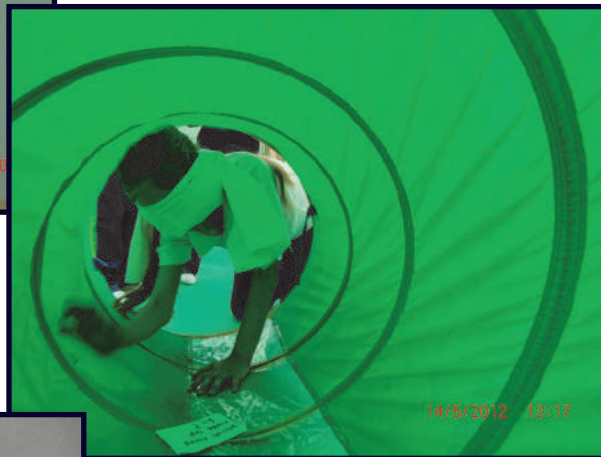
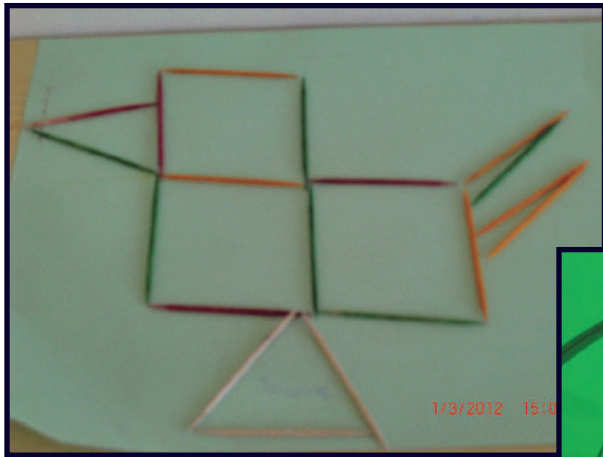
Little Mathematicians Club

This club was organised at Sannat Primary School with the Year 3 students. It was run by myself during the mid-day break. Participation by the students was on a voluntary basis. Activities done during these 20-30 minutes sessions involved Maths concepts through fun games.

Amongst the various activities there were the following:

- Things the students could do in one minute;
- Following directions from a treasure map;
- Activities involving length such as measuring the height of a high jump;
- Activities involving weight, such as finding the weight of various objects;
- Activities involving capacity, such as how much does each container hold;
- Field investigations;
- Creativity through 2D and 3D shapes.;
- Quiz.

Students enjoyed the sessions and were always eager to know what we will be doing next time.



ONLINE

Mathematics Toolkits available



You can download complete Mathematics Toolkits including a description of each activity including any worksheets, flashcards, game sheets or IWB activities.

<http://primarymaths.skola.edu.mt/>

The activities are graded and have been created by the Mathematics Support Team.

Joanne Ghirxi
Mathematics Support
Teacher

