Disseminator:
Mickey Santerre

From:

Frank C. Martin Elementary School
14250 Boggs Drive
Miami, Florida 33176
Mail Code #3101
(305)238-3688

Presenting:
M and M Buddies

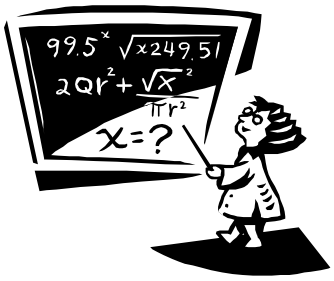
(Math and Mentors)

For Information concerning IMPACT II opportunities,
Such as interschool visits, Adapter and Developer grants,
Please contact:

The Education Fund
900 N.E. 125th St. Suite 110
North Miami, Florida 33161
(305)892-5099

Table of Contents

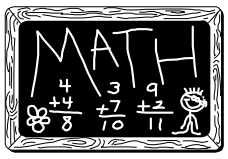
M and M Buddies (Math and Mentors)



M and M Buddies (math and mentors) brings a bridge of connection between older students and younger students in order to explore the world of mathematics Through this partnership, knowledge of math, self esteem, both on the part of the older children(mentors) and younger children(mentees), tolerance and integration of communication is heightened. The students work together, whereby, from the beginning of school until the end of the year interaction with math occurs, as well as bonding with friendship.

M and M Buddies allow all stakeholders (older and younger children) to actively build a math community, communicate ideas of math, investigate math through problem solving, reason, and connect mathematics to the everyday world around them.

A cross curricula approach is developed through using language arts, art and math skills to develop content strand proficiencies which lend itself to provide rich and full experiences for all learners.



Students

This project is designed for 3rd, 4 and 5th graders to be teamed up with kindergarten students. The activities used in this project focuses on exploration and application of math as well as teamwork in a learning environment.

Staff

Mickey Santerre is in her 24th year of teaching , both in private school and public school in Dade County, Florida. She is nationally board certified. She hold's a master's degree in ESE, with an emphasis on varying exceptionalities. She hold's a specialist's degree in science education. She is currently working on her doctorate in science education. Mrs. Santerre has participated in Adapt- a-grant programs.

Overall Value:

Students will learn a variety of skills. Students will produce authentic lesson plans and projects that will enhance learning of all stakeholders. Students will collaborate in order to enhance critical thinking as well as creative thinking.

Goals and Objectives

Kindergarten

Component	Objectives	Sunshine State Standards
Number Sense, Concepts, and Operations	Count by ones to 10 or more, using manipulatives, diagrams, and oral languages	MA.A.1.1.1
	Reads and writes numerals to 10 or more and number words to 5 or more	MA.A.1.1.1
	Counts orally to 100 or more	MA.1.1.1
	Uses numbers and pictures to describe how many objects are in a set (to 10 or more)	MA.A.1.1.2
	Represents quantities to 10 or more, using concrete materials, drawings and symbols	MA.A.1.1.2
	Uses Concrete materials to represent fractional parts of a whole (one half, one fourth)	MA.A.1.1.3
	Knows the relationships between larger numbers and smaller numbers	MA.A.2.1.2
	Uses a variety of strategies for solving number stories and problems	MA.A.3.1.2
	Demonstrates an awareness of addition and subtraction in everyday activities using concrete objects, models, drawings and role-playing	MA.A.3.1.3
Measurements	Weighs objects to explore concepts of heavier and lighter	M.A.B.1.1.1
	Demonstrates and compares the concept of capacity	MA.B.1.1.1
	Uses nonstandard objects, such as cubes, marbles, paper clips and pencils to measure objects	MA.B.1.1.2
	Tells time to the nearest hour	MA.B.1.1.1
Geometry and Spatial Sense	Recognizes symmetry in the environment	MA.C.2.1.1
	Matches objects to outline shapes	MA..C.2.1.1
	Knows the attributes of circles, squares, triangles, and rectangles	MA.C.3.1.2
Algebraic Thinking	Uses concrete objects to create a pattern	MA..D.1.1.1
	Recognizes, describes and duplicates patterns	MA.D.1.1.2

Goals and Objectives

3rd Grade

Component	Objectives	Sunshine State Standards
Number Sense,Concepts and Operations	Translates problem situations into diagrams and models using whole numbers, fractions, and decimal notation in the context of money	MA.A.1.2.3
	Solves problem situations involving addition and subtraction of common fractions and decimals with manipulatives and/or diagrams.	MA.A.1.2.4
	Reads, writes and identifies whole numbers through hundred thousands or more	MA.A.1.2.1
	Explains and demonstrates the addition and subtraction of whole numbers using concrete materials, drawings, symbols and algorithms.	MA.A.3.2.1
Measurement	Uses Oral and written language to communicate measurement concepts	MA.B.1.2.1
	Uses customary and metric units to measure and compare length, weight, and capacity	MA.B.2.2.1
	Identifies proper unit of measurement for a given situation	MA.B.4.2.1
	Selects and uses the appropriate tool for situational measures	MA.B.4.2.2.
Geometry and Spatial Sense	Explores tessellations	MA.C.2.2.2
	Knows how to identify, locate, and plot ordered pairs of whole numbers on a graph	MA.C.3.2.2
Algebraic Thinking	Identifies and extends a pattern according to the given rule	MA.D.2.2.1
	Creates a simple word problem for a given number sentence, diagram, or model	MA.D.2.2.1
	Discusses and explains the choice of the rule that applies to the pattern	MA.D.1.2.2.
	Applies and explains the appropriate rule to complete a table or chart	MA.D.1.2.2.
Data Analysis and Probability	Identifies the different parts of a graph (Title, labels, intervals, and key)	MA.E.1.2.1
	Poses simple questions, gathers information and displays data in a table, pictograph or bar graph	MA.E.1.2.1

Goals and Objectives

4th grade

Component	Objective	Sunshine State Standards
Number Sense Concepts, and Operations	Uses concrete materials to model and identify equivalent forms of whole numbers, fractions and decimals	MA.A.1.2.4
	Explains and demonstrates the multiplication and division of whole numbers using manipulatives, drawings, and algorithms.	MA.A.3.2.1
	Explains and demonstrates the addition and subtraction of common fractions using concrete materials, drawings, story problems and algorithms	M.A.A.3.2.1
	Writes number sentences and word problems involving combinations of operations	M.A.A.3.2.2
	Explains the reason for choosing a particular computing method for a particular problem	M.A.A.3.2.3
Measurement	Demonstrates through the use of physical models, manipulatives, diagrams and counting procedures to investigate measures of length, perimeter, area and volume	MA.B.1.2.1
	Knows about varied time intervals, including decades , hours, minutes, and seconds	MA.B.1.2.1
	Devises nonstandard indirect ways to compare lengths	MA.B.2.2.1
	Uses customary and metric units to compare length, weight, and capacity or volume	MA,B.2.2.1
Geometry and Spatial Sense	Uses manipulatives to solve problems requiring spatial visualization	MA.C.2.2.1
	Understands symmetry, congruency, and reflections in geometric figures using drawings and concrete materials	MA.C.2.2.1
	Identifies and creates congruent and similar figures	MA.C.2.2.1
	Explores tesselations	MA..C.2.2.2
	Knows how to identify, locate, and plot ordered pairs of whole numbers on a graph or on the first quadrant of a coordinate system	MA.C.3.2.2
Algebraic Thinking	Discusses , explains, and analyzes the rule that applies to the pattern	MA.D.1.2.2
	Applies the appropriate rule to complete a table or a chart	MA.D.1.2.2
Data Analysis and Probability	Understands the purpose of different parts of a graph: titles, labels, intervals, and key	MA.E.1.2.1
	Identifies the range on a line graph	MA.E.1.2.2

Goals and Objectives
5th Grade

Component	Objective	Sunshine State Standards
Number Sense, Concepts and Operations	Reads, write, and identifies whole numbers, fractions, mixed numbers, and decimals through thousandths	M.A.A.1.2.1
	Compares and orders whole numbers, commonly used fractions, percents, and decimals to thousandths using concrete materials, number lines, drawings, numerals, and symbols	MA.A.1.2.2
	Explains and demonstrates the multiplication of common fractions using concrete materials, drawings, story problems, symbols, and algorithms.	MA.A.3.2.1
	Solves real world problems involving addition, subtraction, multiplication, and division of whole numbers, and addition, subtraction, and multiplication,decimals, fractions, and mixed numbers using an appropriate method	M.A.A.3.2.3
	Write number sentences and word problems using combinations of operations, including powers	MA.A.5.2.1
Measurement	Communicates measurement concepts using oral and written language	MA.B.1.2.1
	Uses schedules, calendars and elapsed time to solve real-world problems	MA.B.1.2.2
	Knows varied units of time that included centuries and seconds	MA.B.1.2.1
	Uses a conversion table to solve real world problems involving measurements	MA.B.4.2.2
	Uses manipulatives to solve problems requiring spatial visualization	MA.C.3.2.1
	Explores Tesselations	MA.C.2.2.2
Algebraic Thinking	Applies the appropriate rule to complete a table or a chart	MA.D.2.2.1
	Understands mathematical relationships in patterns	MA.D.1.2.2
	Uses concrete or pictorial models, drawings, number lines, and graphs to solve equations or inequalities	MA.D.2.2.2
Data Analysis and Probability	Understands which type of graph(bar, line, or circle) is appropriate for different kinds of data	MA.E.1.2.1
	Chooses reasonable titles, labels, scales, and intervals for organizing data on graphs	MA.e.1.2.1
	Conducts experiments to test predictions (examples: bags, spinners, etc.)	MA.E.2.2.2

Course Outline/ Overview

Beginning of September:

Kindergarten teacher and homeroom or resourceteacher
Sends parental information letter home to inform them
How M and M Buddies is incorporated throughout the year
In their child's classroom. Parental signature is obtained to acknowledge the letter sent home.

The kindergarten teacher and the designated homeroom teacher or resource teacher will exchange class lists in order to pair students up. Keep in mind that aggressive students should not be paired up with each other. If there is an uneven number of students, older students are assigned 2 M and M buddies.

Mid- September: Students are taught how to write a lesson plan.

End of September Students are introduced to their M and M Buddies.

4 grades are collected for M and M Buddies

A. A grade is taken for the lesson plan.

B. A grade is taken from the journal entry of how Student's predict how their lesson plans will go

C. A grade is taken from performance assessment of observation of older M and M Buddies working with their younger M and M Buddies(this grade includes a strong emphasis of students' preparation for lesson).

D. A grade is taken from a journal entry that students write after M and M Buddy Activity

Beginning of
October- June Week A: Students research activities for lesson plans
Homeroom or resource teacher collects lesson plans

Week B: Students prepare for M and M Buddy at the designated day that both teachers have agreed upon.

November Older M and M Buddies are given an assignment to create a math book that they will give their younger Buddy during Winter Holidays.

December Students finalize student created books to give To their younger M and M Buddies.

	Kindergarten teacher and homeroom or resource teacher plan a winter holiday celebration. Students from both classes are assigned to bring refreshments in for celebration. Letter is sent home. Day of celebration, buddy pictures are taken for mementos for children.
January	Continue with schedules for Week A and Week B.
February	Continue with schedules for Week A and Week B.
March	Continue with schedules for Week A and Week B. This is also the time that the assignment of having older mentor create a board game for their buddy.
April	Continue with schedules for Week A and Week B.
May	Teachers distribute letter to parents informing them of the M and M Buddies end of year celebration. On day of celebration, M and M Buddies autograph books are distributed to all children Involved. Younger M and M Buddies are Introduced to the tradition of autographs.
June	Students write a letter to M and M Buddy

Lesson Plans

I. Day 1- (30 minutes)

Objective- Students will be introduced to the overview and purposes of M and M Buddies to gain an understanding of curriculum.

Purpose:

Students will become active stakeholders and gain an understanding that students can learn from other students. Therefore, the older children will become the teachers and the younger children are the students. The teachers will take on a managerial role as facilitators to the activity.

II. Teacher will read to class Hooray for Dissendoofer Day by Jack Prelusky. This book emphasizes how students learn by hands on activities. The book also emphasizes how much enjoyment learning can be. This is segue into M and M Buddies

III. Teachers will explain to students the responsibilities of being a mentor. The teachers will explain that they must be with their buddy at all times. M and M buddies is better done outside away from the classroom.

Teacher distributes letters to parents. Assign the letter for homework. Students will bring signed letters by to teacher.

Students have the responsibility of choosing a substitute M and M mentor if they will be absent. They are to designate, in their journal, who it will be. The students may choose up to 2 other students for this task.

IV. Teacher will review the lesson by "Coop Check.." Coop check is when the students recall what they have learned in this lesson.

Lesson Plans

I. Day 2- (45 minutes)

Objective- Students will gain knowledge of how to write a lesson plan For M and M buddies.

II. Teacher distributes a blank lesson plan form. Teacher gives definition and explains what each component of lesson plan is.

III. Teacher models for students a sample lesson plan

IV. Students are divided up into groups of four to brainstorm a concept of math – teacher gives them an example. Students, upon selecting a concept. Students will write a lesson plan for that concept.

V. Groups will share their lesson plan as part of review and closure.

VI. Teacher distributes lesson plans. The assignment is due at the end of the week. Explain to students that the first lesson is a getting acquainted lesson. They are to create a lesson to find out some information about their buddy.

This will give the teacher ample time to grade them..

Lesson Plans

I. Week A. Day 3 (30 minutes)

Objective: Students will predict if their lesson will be successful. The student will write a journal entry in their M and M Buddy notebooks.

II. Teacher passes out graded lesson plans so that children will have Time to prepare for lesson.

III. Students may share their prediction with the other students.

Teacher answers any questions that children may have.

Lesson Plan

I. Week B-Day 4 (30-45 minutes depending on normal school schedule)

Students gather their supplies. Walk to kindergarten.

II. Teachers have already matched big buddy to little buddy. Remember to reinforce proper behavior for M and M Buddy session.

III. Teacher takes a performance assessment grade based on observations

IV. Big Buddies and little buddies clean up. Big Buddy walks little buddy back to their seats in classroom.

V. Assign students to write a journal entry in their journals about the lesson. Explain to students that they must be proud of the success and work on any weakness. i.e. behavior of younger student, focus of student.

Lesson Plan (creation of booklet)

Objective: Student will understand and become aware of the components of their M and M Buddy booklet.

The teacher will explain to student that they will create a math book for their buddy. If there are two buddies assigned to a student just have that student make two copies.

Requirement of Assignment:

Utilization of math terms. (I usually tell my students that they can make an A to Z math book for their kindergarten buddies).

Creativity is a must in this assignment. The more creative the book, the more their M and M buddies will enjoy the book.

Assignment will be due in 4 weeks.

Answer any questions that students may have.
Review that rule of citing references. .

For homework, distribute the parental information letter. Tell students they must bring signed paper back to class.

Appendixes

September_____,20____

Dear Parents,

Mrs_____kindergarten class and our class are beginning a journey of M and M's! No, not the candy, but math and mentors. Your child has been paired up to mentor a kindergarten student for the entire year. **You might be asking what is M and M Buddies?**

M and M Buddies (math and mentors) brings a bridge of connection between older students and younger students in order to explore the world of mathematics Through this partnership, knowledge of math, self esteem, both on the part of the older children(mentors) and younger children(mentees), tolerance and integration of communication is heightened. The students work together, whereby, from the beginning of school until the end of the year interaction with math occurs, as well as bonding with friendship.

M and M Buddies allow all stakeholders (older and younger children) to actively build a math community, communicate ideas of math, investigate math through problem solving, reason, and connect mathematics to the everyday world around them.

A cross curricula approach is developed through using language arts, art and math skills to develop content strand proficiencies which lend itself to provide rich and full experiences for all learners.

M and M Buddies does have required assignments. The assignments that will receive a grade is as follows:

A. A grade is taken from the lesson plan that students have created

B. A grade is taken from the journal entry of how Student's predict how their lesson plans will go

E. A grade is taken from performance assessment of observation of older M and M Buddies working with their younger M and M Buddies(this grade includes a strong emphasis of students' preparation for lesson).

F. A grade is taken from a journal entry that students write after M and M Buddy Activity

Week A: Students research activities for lesson plans
Homeroom or resource teacher collects lesson plans

Week B: Students prepare for M and M Buddy at the designated day that both teachers have agreed on

Your child does not need to go out and buy supplies. In fact I discourage this. They can use everyday household materials. As we prepare for an exciting year, know that this experience will be a lasting one for all stakeholders involved. Thank you in advance for your cooperation.

Sincerely,

I have seen this notice._____parent's signature

Child's Name_____

Home Room_____

M and M Buddies Lesson Plan

Name_____

Date_____

What is the Objective of your lesson? (What do you want your buddy to learn-be specific)

_____
_____
_____
_____
_____
_____
_____
_____

What are the materials that you will use?

_____
_____
_____
_____
_____
_____
_____
_____

What is your initiating strategy? (How will you start the lesson? Be Creative)

_____
_____
_____
_____
_____
_____
_____

Body of Lesson (Describe step by step how the lesson will be conducted)

_____
_____
_____
_____
_____
_____
_____

Closure (How will you review the lesson that you taught?)

_____
_____
_____
_____
_____
_____
_____

Assessment (How will you know that your buddy knows the concept that you taught him- example is a homework assignment, review questions,etc.)

_____
_____References (if used)

Journal Entries
(Before going to see M and M Buddies)

Predict how your lesson will be.
Do you think your M and M buddy will enjoy it. ?
Are you prepared with lesson plans and supplies?
How will you handle any behavior that is not appropriate?

(After M and M buddies lesson)

How did your lesson go?

Was it successful, why or why not?
If you were to teach this lesson again, what would you do differently?
Do you feel that you are beginning to get control of your session with your buddy?

November_____,200_____

Dear Parents,

M and M Buddies is well underway. Your child is experiencing a wonderful hands on opportunity, as well as knowing that they can help another child successfully. Your child has been assigned a math project to be turned in on December_____,200_. The requirements of the projects is as follows:

Requirement of Assignment:

Utilization of math terms. (I usually tell my students that they can make an A to Z math book for their kindergarten buddies).

Creativity is a must in this assignment. The more creative the book, the more their M and M buddies will enjoy the book.

Assignment will be due in 4 weeks. The due date is _____.

If there are any questions, please do not hesitate to ask. Thank you for helping to make this endeavor possible.

Sincerely,

I have seen this notice_____Parent's signature

Child's Name_____

Homeroom _____

March _____, 200_____

Dear Parents,

Your child has succeeded in being the mentor to little ones in the area of math. Now, we need to put some more creativity and individualism in the center. The assignment for M and M Buddies is to create a mathematics board game. It must be totally created and constructed by everyday household goods. The game may follow any format that your child wishes. However, if it is like Monopoly, for example, they need to give credit for that adaptation. The assignment will be do in May. This particular assignment is one that children truly enjoy. The grading system of the project is as follows:

Creativity-1 grade
Originality-1 grade
Neatness-1 grade
Understanding of the game by their buddy- 1 grade

Thank you, once again for being so helpful.

Sincerely,

I have seen this notice_____parent's signature

Child's Name_____
Homeroom_____

Resource List

Most of the internet sites are resources for students to peruse in order to create or add to a lesson. The following sites are what my students use. However, they are not limited to these:

Http://www. Proteacher.com
http://www. Education place.com
PBS for Kids
Mathworld.com

I also suggest that they go to literature to segue into the lesson:

The Hungry Caterpiller. By Eric Carle
The Greedy Triangle by Roz O'Dell
The Magic Fan by Keith Baker

Feelings, Muriel. *Moja Means One: Swahili Counting Book*. Dial, 1971.
Hutchins, Pat. *The Doorbell Rang*.

 **Lindbergh, Reeve.** ***The Midnight Farm*****.**

There are so many more. Just go on the internet and type in Math literature for kids.