

# Newburgh Teacher Center

## In-service Course Proposal

Page #1

**Return by March 2, 2009**

Title:	Manipulative Based Math Activities (Grades 4-6) for 2 <sup>nd</sup> Quarter		
Curriculum Area:	Math		
Learning Standards:	MST-3 & NYS Core Math Curriculum		
Presenter(s):	Linda Apuzzo	Email:	lapuzzo@newburgh.k12.ny.us
Dates:	Tuesdays, 10/20, 10/27,11/24,12/1,12/8		
Time:	4:15-7:15		
Location:	TBA		
Credit(s):	1		
Hours:	15		
Target Audience:	Open to all teachers. Preference will be given to grades 4-6 classroom, Special Education, Bi-lingual, AIS Teachers and any teachers new to the district.		
Course Description:	Teachers will develop manipulative based math activities that support instruction of multiple performance indicators identified on curriculum maps. Activities will include reinforcement and instruction of content and process skills. The finished collection will be available in a shared folder for teachers to use and continue to contribute additional lessons.		
Course Requirements:	Materials will be provided Attendance and participation at all sessions Demonstrate a math lesson using manipulatives Create 2 lessons which use manipulatives to support curriculum map Share and exchange best practice strategies to differentiate instruction and improve student performance.		
Maximum Enrollment:	15		

**Newburgh Teacher Center  
In-service Course Proposal**

p. #2

*Credit and permission granted by Jay McTighe – UBD*

**Name of In-service Proposal:** Manipulative Based Math Activities for 2<sup>nd</sup> Quarter

**Name of Instructor(s):** Linda Apuzzo

**Desired Results**

**Goal(s):**

To improve instructional delivery with the goal of increased student achievement.

To provide teachers with various strategies of using manipulatives to develop and reinforce math concepts.

**Understanding(s):**

- NYS Core Math Curriculum and Performance Indicators
- NECSD Math Curriculum Maps
- NYS Scoring Policies
- Importance of developing math concepts through use of manipulatives
- NYS Core Math Curriculum, Content and Process Strands

**Essential Question(s):**

- How we can help teachers differentiate their instruction to meet the needs of all students through use of manipulatives?
- How can we help teachers deliver lessons that support students' learning through experiences they can reflect upon, ultimately strengthening connections to mathematical concepts.

**Knowledge/Skills:**

- Strategies to support NECSD Math Curriculum Maps with manipulative based activities
- Strategies to differentiate instruction
- Strategies of using multiple variations of manipulatives
- Strategies for reinforcing processing skills
- Strategies to increase math vocabulary and writing in the content area

**Assessment Evidence**

**Direct Evidence:**

Informal Observations

- Small group discussions

Demonstrations of Activities shared with group

2 Activities using manipulatives to reinforce content on Curriculum maps

**Learning Plan**

**Learning Activities:**

- Using multiple manipulatives for teaching various concepts
- Sharing Resources and making manipulatives
- Training on NECSD Curriculum Maps
- Evaluating activities for meeting NYS Math Standards
- Creating Reflection Questions that reinforce skills for Part II Written Response Questions on NYS Math Test