

## Harlem Renaissance: Key Questions to support

### AHSI MINT Visit

After a discussion of the MINT Visit at Mapleton lead by Rhonda Creed Harry (RCH), the Math Department (RCH, Phil Cordero and Richard Martin) in collaboration with the School Principal, Mary Rice-Booth and the Diploma Plus School Coach, John Jenkins developed several key Questions upon which the visiting team should base their observations and feedback. Each Key question identifies the current practices observed at Harlem Renaissance and highlights some of the concerns we have about the area in our school community.

#### 1. How do we build a Culture of Success around Numeracy at HRHS?

##### Current Practice

A word wall for every subject is present to increase vocabulary use. Key terms are provided at the beginning and revisited at the end of lessons as well. Quizzes are administered with open book, notes and collaboration is allowed. We use vocabulary and word problems to integrate Literacy and Math in order to increase our students' understanding and success in numeracy. Each class has a detailed course outline and/or syllabus so that students know expectations. Formal classroom assessments also include questions modeled after the NYS Regents exam in Mathematics. Students are also able to compile portfolios that represent their best Numeracy work.

##### Concerns

Students at HRHS seem to be poorly motivated to perform in Math. Many of them do not want to try difficult or challenging Math questions. Most seem to be interested in just doing enough to pass. The students come to us having experienced failure in Math and that pattern continues for most of them while they are here. We are looking for ways to shift their view of Numeracy and make it accessible and a part of their everyday lives. We want students to become more comfortable and experience success when it comes to Numeracy. Currently, all of the efforts we have initiated have not created the shift in the attitude towards Numeracy that we'd like to see.

#### 2. What routines/learning experiences within the HRHS Math Department help build skills and a culture of success in Numeracy?

##### Current Practice

There is a significant use of technology – Smartboard, Geometry Software, Internet, Graphing calculator simulator in some classes. There are consistent

class rules but varied teaching techniques. (60% teacher centered, 15% group, 15% hands on activities). Daily word problems are used to build Math Vocabulary and problem solving skills. Weekly quizzes are administered to test basic skills. In some classes we have instituted a daily agenda, a problem of the day, vocabulary journals and the integration of technology to support Numeracy development. Students are provided with individual work time and challenging work scaffolded based upon their abilities.

#### Concerns

THE HRHS Department has been looking at ways to create some similar routines around building Math Skills and Success in Numeracy. Each teacher is currently using individual routines within the classrooms with varied degrees of success. We are interested in building a cadre of classroom experiences and routines that will reinforce sound Numeracy skills and build in opportunities for success. There is also a desire to have more focused dialogue and sharing within the department and across departments about how to support and strengthen a culture of Numeracy at HRHS. We are also interested in the role that incentive charts can play in this area.

3. What are the current routines/learning experiences used in the Math classes that could help build skills and a culture of success in Numeracy across the school community?

#### Current Practice

Math instructors make a significant effort to use common learning strategies and cross-curricular literacy and vocabulary to enhance the teaching of Math concepts. It is a common practice to create real world projects (esp. in Consumer Math – house, auto, investing) and utilize problem solving techniques (e.g. working backwards). Also, Problem solving techniques are connected to useful strategies that can be adapted to any area of one's life. For example, understanding fractions and solving fraction problems can help in cooking. Area and perimeter lead to understandings in carpentry, painting, furnishing a house or apartment. Etc.)

#### Concerns

Currently Math and Numeracy are the sole concern/responsibility of the Math Department. We have developed inter-disciplinary courses that teach Numeracy skills through Science and Art. We are looking to find ways to involve more staff and members of the school community in using Numeracy across the curriculum and school. It would be helpful to have professional development in strategies

and approaches that can enhance this so that the adult community is more Numerate and can support the students' Numeracy growth. This would require creative ways to plan and collaborate across content areas

4. How is content vocabulary used to build skills and promote a culture of success in Numeracy within Math classes?

#### Current Practice

Incorporation of "at least" one new vocabulary word every other lesson. Vocabulary "matching" quizzes/tests are administered. Vocabulary is reviewed in summary of each lesson. We use word problems to build vocabulary and problem solving skills. Graphic organizers are used as tools to support vocabulary acquisition. Students also complete written reflections in Math Classes. Some students also maintain vocabulary journals

#### Concerns

Many of the Students at HRHS struggle with vocabulary across the various content areas. They do not have solid strategies to study, retain and use vocabulary consistently. Many of them do not know and understand the Math Vocabulary and concepts needed to be successful on state exams and to engage in discourse about problem solving. Vocabulary is often taught in context but students seem to need more support in remembering and applying Math vocabulary

5. How do we make optimal use of class instructional time to support student retention and practice of Numeracy Skills during Math classes?

#### Current Practice

Allow students to receive HW credit during last ten minutes of class time by incorporating "On Your Own" work into homework. Some teachers provide students with notebooks for note taking and for use on projects, tests and quizzes. We use repetition to build retention of material taught during class. This is achieved through the use of home work and word problems and weekly quizzes. Weekly quizzes repeat work covered during the past week and previous weeks. Some class time is devoted to starting or finishing homework that reinforces the day's lesson. Word problems incorporate that day's or previous lessons into a numeracy related problem. Flexible student grouping is used to allow students opportunities to complete and practice skills in multiple ways. As often as possible Math instruction is provided using a hands on approach that incorporates multiple assessments and technology

## Concerns

The HRHS instructional period provides 53 minutes of instructional time each day. Students do not do much homework or practice outside of class. We would like strategies that we can do on a daily basis during class time to help with student retention of material. Each teacher divides the class period up as she feels is appropriate to accomplish the objectives of the day. Most classes included some type of warm up Math Problem that is reviewed; some direct instruction of a Math concept and student opportunity to practice the skill taught. We are seeking to find more ways to utilize the class time in a way that promotes learning and retention of Numeracy skills that may be different than what you would see in a traditional classroom in other content areas. We are interested in best practices in Math instruction that will give students optimal opportunities to practice skills and retain key concepts and information.