

# MULTICULTURAL RESOURCE CENTER

A collaborative project of Saint Paul Public Schools Office of Educational Equity and the East Metro Integration District

"The Problem Solver"  
Nail Fetish from Congo



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## Mathematics and Social Justice Education

Often times conversations about social justice education are confined to the English, Social Studies, or even Arts classrooms. We don't see a lot of Math teachers stopping by to check out resources from the Multicultural Resource Center (MRC). That's a shame because there is a wealth of information here for them to draw on. In addition to resources on multicultural and ethno-mathematics, we have a number of resources for implementing a social justice focus in to math and economics classes. Many of these resources are ready to use and standards based.

The NCTM encourages the putting mathematics into a context of the social fabric to makes it more relevant for students. Social Justice Mathematics moves beyond putting math into a social, real world context; it asks students to make use of the mathematics they are studying to make social change. Students begin to view math as empowering.

To have more than a surface understanding of important social and political issues, mathematics is essential. Without mathematics, it is impossible to fully understand a government budget, the impact of a war, the meaning of a national debt, or the long-term effects of a proposal such as the privatization of Social Security. The same is true with other social, ecological, and cultural issues: You need mathematics to have a deep grasp of the influence of advertising on children; the level of pollutants in the water, air, and soil; and the dangers of the chemicals in the food we eat. Math helps students understand these issues, to see them in ways that are impossible without math; for example, by visually displaying data in graphs that otherwise might be incomprehensible or seemingly meaningless. (Peterson, *Rethinking Mathematics*)

Sometimes all that is necessary is tweaking an existing lesson to have a social justice focus. Many of us have students create a household budget as a way of practicing life skills and decimals. Add in the concept of minimum and livable wages and you have added a social justice component. Give out a menu to a local restaurant your students might eat at. Have them write up an order for a meal their family might eat. Then have them figure out how many hours someone earning minimum wage would need to work to afford the meal (lesson from tolerance.org). Teachers working on statistics or ratio, fractions, and percents can incorporate statistics form Harper's Index (found in Harper's Magazine, available at a one year delay through EBSCO database accessed through your online library databases).

If you don't feel that you have the time or flexibility to adapt your curriculum to have a social justice focus, consider starting an after-school social justice math club. In addition to having the opportunity to try out social justice math curriculum, your students will be getting some extra time to work on math in a meaningful way.

Explore some of the links or MRC resources listed in this newsletter for other social justice math lesson ideas or stop by the MRC for tips from our staff. Consider joining the Social Justice Educators Network or participating the Social Justice Curriculum Writing Institute this summer (Look for more information on this opportunity in April.)

### MRC Steering Committee

Michelle Barrett, ISD 199  
Ann Capeder, ISD 832  
Kevin Donovan, ISD 832  
LaVonne Francis, SSD 006  
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Debra Watson, EMID  
Larry Wren, ISD 625

*The staff at the MRC have helped me to see that I plan more thoughtful and engaging lessons and dialogues with my students. I enjoy being the learner alongside my students, and they are often the teacher.*

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*I feel good knowing that I have a resource from which I can both educate myself continually about making my classroom a more comfortable place to feel included.*

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*It has provided an awareness to those who are unfamiliar with other cultures by experiencing something new (windows) and reflecting on his/her own culture (mirrors). It has also helped students of these cultures understand a bit more about who they are and where they came from.*

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*I have loved checking out the objects! It has been wonderful to have real objects to share with them to illustrate various cultures. The professional development resources (books from the MRC) have helped our school study group add strategies for working with urban learners.*

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## Exciting Events Coming Up @ the MRC

**Social Justice Educators Network ...** Calling educators interested in sharing ideas and resources and supporting each other in teaching within a social justice framework. Join us for the Social Justice Educators Network on Tuesday, April 8<sup>th</sup> from 4-5:45 pm at the MRC. This is not a workshop, but a group formed in response to a recognized need. The group will evolve according to the interests and needs of its members. Snacks and good conversation will be the order of the day. Contact Jenny Eisele at [Jennifer.eisele@spps.org](mailto:Jennifer.eisele@spps.org) to RSVP or for additional information or visit us online at [http://mrc.spps.org/Social\\_Justice\\_Educators\\_Network\\_SJEN.html](http://mrc.spps.org/Social_Justice_Educators_Network_SJEN.html).

**Back by popular demand...MRC Movie Nights.** Each month during the 2007-2008 school year, the MRC will host a *free* community film screening. Students, staff, and community members are welcome to join us. Films have been selected to compliment monthly staff development offerings. Discussions will follow the films. Lemonade, snacks, and clock hours will be available. See below for a listing of featured films and dates. Check our website for complete descriptions of the films. While registration for the Movie Nights is not necessary, an RSVP would be appreciated. All films are from 4 pm to 6 pm at the MRC.

**Long Way From Home**, Wednesday, 4/30/08

**Transit Cafe**, Tuesday, 5/20/08

**The MRC offers monthly, evening staff development workshops focusing on a variety of issues.** These classes are *free* to staff in Saint Paul Public Schools and other EMID-member districts. A light supper and clock hours will be available to participants. To register for these workshops, complete a registration form (available on our website) and mail or fax to the MRC by the Friday before the workshop. Suburban staff may register online at <http://mrc.spps.org> and SPPS staff through <http://pdexpress.spps.org>. Workshops will be held at the MRC from 4:30-7 pm.

A listing of workshops remaining for 2008 are below.

**Women and Hmong Culture**, Tuesday, 4/22/08

**Understanding Islam**, Wednesday, 5/14/08

## Learn More About Social Justice Mathematics Online...

<http://radicalmath.org> Organization of Math teachers focused on Social Justice Education. Great conference and lesson plans.

<http://www.wfu.edu/~mccoy/socialjustice/> Examples of great lesson plans integrating math and social justice

<http://www.tolerance.org/>, Find articles and lesson plans on Social Justice Mathematics

<http://www.algebra.org/> Bob Moses' Algebra Project

<http://www.amstat.org/publications/jse/v15n1/lesser.html> Resources from the Journal of Statistics Education

<http://www.afsc.org/cost/facts-and-figures.htm> AFS Cost of War Project

[http://www.rethinkingschools.org/publication/math/RM\\_intro.shtml](http://www.rethinkingschools.org/publication/math/RM_intro.shtml) Rethinking Mathematics site. Information on purchasing the book and sample lessons.

<http://www.edliberation.org/talkin-bout> Education for Liberation Network will host an

online forum with Bob Moses from 3/19-20.

<http://www1.umn.edu/humanrts/edumat/> HRUSA, download topic book with lesson

plans, *Economics and Social Justice: A Human Rights Perspective*

[http://mrc.spps.org/Math\\_and\\_Social\\_Justice.html](http://mrc.spps.org/Math_and_Social_Justice.html) Articles on Social Justice and Math Education.

## Check It Out...Resources on Social Justice Education Available at the MRC

### ***Creating Balance in an Unjust World : Conference on Math Education and Social Justice.***

These DVD's contain two panel discussions, Keynote Address from Bob Moses, founder of the Algebra Project, and handouts and Powerpoint presentations from various conference workshops. Conference sessions examined the connections between math education and social justice, and explored questions crucial to math education, including: how has math literacy been a gatekeeper to educational and personal success.

### ***Rethinking Mathematics: Teaching Social Justice By The Numbers, by Eric Gutstein and Bob Peterson.***

In this unique collection, more than 30 articles show how to weave social justice issues throughout mathematics curriculum, as well as how to integrate mathematics into other curricular areas. The MRC has a number of other Rethinking Schools resources in its collection.

### ***Radical Equations: Civil Rights from Mississippi to the Algebra Project, by Bob Moses.***

Drawing its inspiration from the civil rights movement's organizing tactics, the first part of this book is devoted to detailing how black Americans undid the white choke hold on Southern politics. In part two, Moses shows how the same grassroots organizing can be applied to make change in the classroom. He also explains why the project's success rate is so much higher than that of traditional math programs. Peppared with anecdotes and quotations from participants, this dense book is surprisingly captivating.

### ***Reading and Writing the World With Mathematics: Toward a Pedagogy for Social Justice, by Eric Gutstein.***

This book uses Paulo Freire's Liberation Education epistemology as a conceptual framework for discussing the teaching and learning of mathematics for social justice in an urban middle school with predominantly Latino students. In addition to the conceptual model, the author provides practical examples of tasks that can guide mathematics teachers as they attempt to investigate sociopolitical issues through mathematics.

### ***Mathematics and Global Survival, by Richard Schwartz.***

This resource provides students with an awareness of critical issues facing the world today, motivating their study of mathematics, teaching them how to solve mathematical problems related to current global issues, providing coherence to mathematical studies through a focus on issues of human survival, and making students aware of the magnitude of current global problems and how they can help find solutions.

### ***Improving Access to Mathematics: Diversity and Equity in the Classroom, edited by Na'ilah Suad Nasir, Paul Cobb.***

Key experts with extensive research and classroom experience examine how the multiple dimensions of race, class, culture, power, and knowledge interact in mathematics classrooms to foster and create inequities. Chapters explore new theoretical perspectives, describe successful classroom practices, and offer insights into how we might develop an effective sociocultural approach to equity in math education.

### ***Ethnomathematics: Challenging Eurocentrism in Mathematics Education, edited by Arthur B. Powell and Marilyn Frankenstein.***

This collection brings together classic, previously-published articles and new research to present the emerging field of ethnomathematics from a critical perspective, challenging particular ways in which Eurocentrism permeates mathematics education.

### ***The Power of Numbers: A Teacher's Guide to Mathematics in a Social Studies Context, by Educators for Social Responsibility.***

It provides mathematical experiences in real world contexts that help students interpret, experiment, communicate, and look for multiple solutions to complex problems. The curriculum uses mathematics in context to help students develop higher order thinking and communication skills. This approach encourages students to interact with each other and the material. Students begin to see that skills and concepts are part of a connected body of knowledge. The context gives students a reason to learn and remember mathematical skills and shows them how these skills and concepts are applied in actual practice. It shows them that they can use mathematics for learning about the world.

### ***Math That Matters: A Teacher Resource for Linking Math and Social Justice, by David Stocker.***

Fifty thoughtful and accessible lesson plans that explore the links between mathematics and social justice. This is an innovative and indispensable tool for those passionate about mathematics, social justice, civic engagement, and interactive and involved classrooms.

**Browse our on-line catalog to discover more great resources for your classroom!**

<http://mrc.spps.org/Catalog.html>

## Multicultural Resource Center

Jenny Eisele,  
MRC Coordinator

Linda Lamprecht,  
MRC Clerk

Arlington H.S.  
1495 Rice St.  
(at Nebraska)  
St. Paul, MN 55117

Phone:  
651.487.7335

Fax:  
651.487.7330

E-mail:  
mrc@spps.org

We're on the Web!

See us at:

[www.mrc.spps.org](http://www.mrc.spps.org)



Saint Paul  
Public Schools



## About the Multicultural Resource Center...

Multicultural education is a progressive approach for transforming education that holistically critiques and addresses current shortcomings, failings, and discriminatory practices in education. It is grounded in ideals of social justice, education equity, and a dedication to facilitating educational experiences in which all students reach their full potential as learners and as socially aware and active beings, locally, nationally, and globally. Multicultural education acknowledges that schools are essential to laying the foundation for the transformation of society and the elimination of oppression and injustice. ~Paul Gorski (<http://www.edchange.org>)

The Multicultural Resource Center (MRC) facilitates access, for teachers, to the necessary tools to infuse learning experiences with Multicultural Education. The MRC is part library, part museum, mostly a place where educators can come to build their capacity in working with diverse students and find resources to support this new capacity.

The goal of the MRC is to promote the creation of equitable learning environments infused with multiple, authentic viewpoints that confront the norming of whiteness. Through curricular support, lending out materials to support such an environment, and providing modeling through class visits and staff development opportunities, social change will occur. Please explore our website to gain a better understanding of the MRC's various roles.

### Browsing Hours...Stop On By!

While the MRC is available for class visits and meetings during the day, we have set aside the specific times below for patron browsing and check-out. It is best to call before you come to ensure that someone will be available to assist you.

***Mondays & Thursdays, 1-4 pm***

***Tuesdays & Wednesdays, 2-6 pm***

***Other times, by appointment.***

Check out our website for policies and procedures for reserving the MRC.

### Interdistrict Partnership Coach.....

Thanks to the many SPPS teachers who participated in Interdistrict Classroom Partnerships, trainings, and workshops with the EMID suburban districts. My office will be sending out information about additional opportunities after Spring Break and ask you to complete a survey. Please let my office know if you are interested in continuing with or creating an Interdistrict Partnership for the 2008-09 school year so my office can get the materials to you. ***The deadline for partnership proposals for the next school year is May 19<sup>th</sup>.***

You can contact me with questions at [stephen.severance@spps.org](mailto:stephen.severance@spps.org) or 651.487.7363.

Multicultural Resource Center  
Arlington High School  
1495 Rice St.  
St. Paul, MN 55117