

**UCSB Department of Mathematics
Center for Mathematical Inquiry
Harding Laboratory Elementary School
2010 Laboratory School Summer Workshops**

**Workshop #1: Number Sense and Early Algebra in grades 1-2
July 13, 12:30-3:30 & July 14-15, 8:00-3:00
Harding Elementary School, Room TBA
Workshop leader: Bill Jacob**

The Center for Mathematical Inquiry is offering workshops on Number Sense and Early Algebra for teachers who have previously attended our workshops or have taught from a Context for Learning Mathematics unit.

These workshops will focus on the units used by teachers in the laboratory school and on how to introduce ideas from early algebra into the curriculum. During the mornings participants will observe classrooms as the children work on Contexts for Learning Mathematics units, join the teachers during planning sessions, examine children's thinking and work, and during the afternoons work with workshop leader Bill Jacob on how to integrate big ideas of early algebra into units focused on number sense and computational fluency.

Participants must apply in teams of two or more and if possible should choose collaborators from their school.

Please indicate the workshop you are interested in and include your name and the names of teachers on your team that will be coming with you on the application. All participants should send in an application. *Participating teachers will receive lunch the 2nd day of the workshop.*

The workshop includes instructional units necessary to develop at their grade level the strategies as well as the mini-lessons and tools to incorporate into the classroom. These materials can be used throughout the year to help students develop computational fluency.

Context for Learning Mathematics units in the workshop are:

Bead, Shoes and Making Twos: Extending Number Sense.

The Double Decker Bus: Addition and Subtraction facts using Arithmetic Rack.

Measuring for the Art Show: Addition, Subtraction and measurement strategies and development of the open number line.

The workshop will be limited to 12 participants. Workshop sessions will be held at Harding Elementary, Room TBA. Applications are due May 1, 2010. Unfortunately, unlike prior years we are unable to provide stipends. This workshop is funded in part by a grant from the Educational Advancement Foundation. For more information contact Bill Jacob at jacob@math.ucsb.edu or Monica Guzman at monica@math.ucsb.edu.

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July 13, 12:30-3:30 & July 14-15, 8:00-3:00
Harding Elementary School, Room TBA**

Workshop #1 Application

Name: _____

School: _____ Grade: _____

Mailing Address: _____

City: _____ Zip Code: _____

Home Telephone: _____

Email: _____

Include the names of the teachers on your team that will be coming with you below:

Mail, Fax or email application to:
Monica Guzman
Department of Mathematics
University of California, Santa Barbara
Santa Barbara, CA 93106
Fax (805) 893-2385

The workshop will be limited to 12 participants. Workshop sessions will be held at Harding Elementary, Room TBA. Applications are due May 1, 2010. Unfortunately, unlike prior years we are unable to provide stipends. This workshop is funded in part by a grant from the Educational Advancement Foundation. For more information contact Bill Jacob at jacob@math.ucsb.edu or Monica Guzman at monica@math.ucsb.edu.

**UCSB Department of Mathematics
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**Workshop #2: Number Sense and Early Algebra in grades 3-4
July 20, 12:30-3:30 & July 21-22, 8:00-3:00
Harding Elementary School, Room TBA
Workshop leader: Bill Jacob**

The Center for Mathematical Inquiry is offering workshops on Number Sense and Early Algebra for teachers who have previously attended our workshops or have taught from a Context for Learning Mathematics unit.

These workshops will focus on the units used by teachers in the laboratory school and on how to introduce ideas from early algebra into the curriculum. During the mornings participants will observe classrooms as the children work on Contexts for Learning Mathematics units, join the teachers during planning sessions, examine children's thinking and work, and during the afternoons work with workshop leader Bill Jacob on how to integrate big ideas of early algebra into units focused on number sense and computational fluency.

Participants must apply in teams of two or more and if possible should choose collaborators from their school.

Please indicate the workshop you are interested in and include your name and the names of teachers on your team that will be coming with you on the application. All participants should send in an application. *Participating teachers will receive lunch the 2nd day of the workshop.*

The workshop includes instructional units necessary to develop at their grade level the strategies as well as the mini-lessons and tools to incorporate into the classroom. These materials can be used throughout the year to help students develop computational fluency.

Context for Learning Mathematics units in the workshop are:

Trades, Jumps and Stops: Early Algebra.

Groceries, Stamps and Measuring Strips: Introduces strategies and representations for early multiplication including arrays, skip counting, and using the number line.

Muffles Truffles: Place value and early multiplication.

The workshop will be limited to 12 participants. Workshop sessions will be held at Harding Elementary, Room TBA. Applications are due May 1, 2010. Unfortunately, unlike prior years we are unable to provide stipends. This workshop is funded in part by a grant from the Educational Advancement Foundation. For more information contact Bill Jacob at jacob@math.ucsb.edu or Monica Guzman at monica@math.ucsb.edu.

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Harding Laboratory Elementary School
2010 Laboratory School Summer Workshops**

**Number Sense and Early Algebra in grades 3-4
July 20, 12:30-3:30 & July 21-22, 8:00-3:00
Harding Elementary School, Room TBA**

Workshop #2 Application

Name: _____

School: _____ Grade: _____

Mailing Address: _____

City: _____ Zip Code: _____

Home Telephone: _____

Email: _____

Include the names of the teachers on your team that will be coming with you below:

Mail, Fax or email application to:
Monica Guzman
Department of Mathematics
University of California, Santa Barbara
Santa Barbara, CA 93106
Fax (805) 893-2385

The workshop will be limited to 12 participants. Workshop sessions will be held at Harding Elementary, Room TBA. Applications are due May 1, 2010. Unfortunately, unlike prior years we are unable to provide stipends. This workshop is funded in part by a grant from the Educational Advancement Foundation. For more information contact Bill Jacob at jacob@math.ucsb.edu or Monica Guzman at monica@math.ucsb.edu.

**UCSB Department of Mathematics
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2010 Laboratory School Summer Workshops**

**Workshop #3: Number Sense and Early Algebra in grades 5-6
July 27, 12:30-3:30 & July 28-29, 8:00-3:00
Harding Elementary School, Room TBA
Workshop leader: Bill Jacob**

The Center for Mathematical Inquiry is offering workshops on Number Sense and Early Algebra for teachers who have previously attended our workshops or have taught from a Context for Learning Mathematics unit.

These workshops will focus on the units used by teachers in the laboratory school and on how to introduce ideas from early algebra into the curriculum. During the mornings participants will observe classrooms as the children work on Contexts for Learning Mathematics units, join the teachers during planning sessions, examine children's thinking and work, and during the afternoons work with workshop leader Bill Jacob on how to integrate big ideas of early algebra into units focused on number sense and computational fluency.

Participants must apply in teams of two or more and if possible should choose collaborators from their school.

Please indicate the workshop you are interested in and include your name and the names of teachers on your team that will be coming with you on the application. All participants should send in an application. *Participating teachers will receive lunch the 2nd day of the workshop.*

The workshop includes instructional units necessary to develop at their grade level the strategies as well as the mini-lessons and tools to incorporate into the classroom. These materials can be used throughout the year to help students develop computational fluency.

Context for Learning Mathematics units in the workshop are:

The California Frog Jumping Contest: Equivalence, early algebra, and the double number line.

Box Factory: Advanced use of arrays for multiplication and spatial thinking.

Best Buys, Ratios and Rates: Develops ratio tables and double number lines as models useful for operations with fractions.

The workshop will be limited to 12 participants. Workshop sessions will be held at Harding Elementary, Room TBA. Applications are due May 1, 2010. Unfortunately, unlike prior years we are unable to provide stipends. This workshop is funded in part by a grant from the Educational Advancement Foundation. For more information contact Bill Jacob at jacob@math.ucsb.edu or Monica Guzman at monica@math.ucsb.edu.

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**Number Sense and Early Algebra in grades 5-6
July 27, 12:30-3:30 & July 28-29, 8:00-3:00
Harding Elementary School, Room TBA**

Workshop #3 Application

Name: _____

School: _____ Grade: _____

Mailing Address: _____

City: _____ Zip Code: _____

Home Telephone: _____

Email: _____

Include the names of the teachers on your team that will be coming with you below:

Mail, Fax or email application to:
Monica Guzman
Department of Mathematics
University of California, Santa Barbara
Santa Barbara, CA 93106
Fax (805) 893-2385

The workshop will be limited to 12 participants. Workshop sessions will be held at Harding Elementary, Room TBA. Applications are due May 1, 2010. Unfortunately, unlike prior years we are unable to provide stipends. This workshop is funded in part by a grant from the Educational Advancement Foundation. For more information contact Bill Jacob at jacob@math.ucsb.edu or Monica Guzman at monica@math.ucsb.edu.