



THE CONNECTICUT ASSOCIATION OF ELEMENTARY
SCHOOL PRINCIPALS

Presents

LAWRENCE LOWERY

**“How People Learn Mathematics and
Science”**

**CAESP ELEMENTARY SPRING
CONFERENCE**

**• Monday, May 3, 2004 •
The Farmington Marriott,
Farmington, CT**



The Connecticut Association
of Schools
30 Realty Drive
Cheshire, CT 06410

NON-PROFIT ORG
U.S. POSTAGE
PAID
CHESHIRE, CT
PERMIT NO. 90

SPRING CONFERENCE
Monday, May 3, 2004
The Farmington Marriott,
Farmington, CT

SCHEDULE

May 3, 2004

8:00 Registration/ Coffee/ Exhibit Viewing
8:50 Welcome/ Opening Remarks
9:00 Keynote Address

❖ Lawrence Lowery ❖

“How People Learn Mathematics and Science”

The keynote will present ideas on how people become “experts” in math and science and how teachers can move “novices” toward expertise. Some information on how the brain processes and learns will deepen and enrich teaching strategies. Examples will span all the grade levels.

9:45-10:15 Exhibit Viewing
10:15-11:45 Morning Workshop
11:45-12:15 Exhibit Viewing
12:15-2:00 Luncheon
2:00 Afternoon Workshops
3:30 Conclusion

An extensive lunch buffet including 3 main entrees.

Continuously replenished refreshment breaks:

A.M. service features freshly brewed coffees and teas, assorted juices, soft drinks, sparkling waters, fresh whole or sliced fruits, assorted breakfast pastries, breads, bagels and/or croissants.

P.M. service includes freshly brewed coffees and teas, assorted juices, soft drinks, health snacks, fun snacks, and assorted baked goods.

DIRECTIONS

Traveling North: I-95 North to Route 8 North (junction in Bridgeport, CT.) Follow 8 North to I-84 East (junction in Waterbury, CT). Follow I-84 East to Exit 37 - Fienemann Road - refer to EASTBOUND directions below.

-OR-

I-91 North to Route 9 North. Follow 9 North to I-84 West. Take exit 37 - Fienemann Road - refer to WESTBOUND directions below.

Traveling South: I-90 - Massachusetts Turnpike to I-84 West. Follow I-84 West to Exit 37 - Fienemann Road - refer to WESTBOUND directions below.

-OR-

I-91 South to I-84 West (junction in Hartford, CT). Follow I-84 West to exit 37 - Fienemann Road - refer to WESTBOUND directions below.

Eastbound: Follow I-84 East to Exit 37 - Fienemann Road. At end of ramp, turn left at traffic light. At next set of traffic lights turn right, entering drive marked: FARM SPRINGS. The hotel is at the end of this drive.

Westbound: Follow I-84 West to Exit 37 - Fienemann Road. At end of ramp, proceed straight through traffic light, entering drive marked: FARM SPRINGS. The hotel is at the end of this drive.



Participants who attend the **full** conference will be eligible for 0.5 CEUs.

Turn in your name tag at the registration table at the end of the conference to receive your CEU's.

REGISTRATION

Fee Information



Agency/School _____ Work Phone _____

—

Name _____

Address _____

District _____ City _____ State _____ Zip _____

—

S. S. # _____ Position _____

Please indicate your workshop choice by workshop number:

A.M. _____ 1st Choice _____ 2nd Choice

P.M. _____ 1st Choice _____ 2nd Choice

Registration Fees (includes entire program and lunch):

1. CAS Elementary Member Schools' Personnel — \$ 99.00
2. Non-CAS member Elementary Schools' Personnel — \$135.00
3. Teams (4 or more from a single school or 6 or more from a single district, deduct from fee): - \$ 12.00 each

Please indicate appropriate registration fee:

1. \$99 2. \$135
 3. Teams: enter total fee _____

Registration should be completed in full & sent with check or purchase order made payable to CAS to:

Dr. Robert F. Carroll, CAS
30 Realty Drive, Cheshire, CT 06410

KEYNOTE SPEAKER LAWRENCE LOWERY

Questions registration directed to Office at 1111.

ATTENTION/CANCELLATION DEADLINE: April 23, 2004. No for cancellations after confirmation will be your badge & at the Conference the day of the



regarding may be the CAS (203) 250-REGISTR

REGISTRATION DEADLINE: refunds will be made the deadline. No sent. Please pick up Conference materials registration table on Conference.

Lawrence Lowery is a professor emeritus at the University of California at Berkeley. He was the Principle Investigator for both the EQUALS math program and FAMILY MATH at the Lawrence Hall of Science. He remains active as the Principle Investigator for the Full Option Science System (FOSS), a science curriculum for grades K-8 developed at the Lawrence Hall of Science. Professor Lowery has taught science in every grade K-12. He continues to publish and edit articles and books, the most recent being *The Kingfisher Science Encyclopedia* (New

Y o r k
1993),
Guideli
Implem
Science
(NSTA
1997),
Biologi
Thinkin

SPRING CONFERENCE COMMITTEE

and London,
Pathways -
n e s t o
enting the
Standards
publication,
T h e
cal Basis for
g a n d

Learning (Lawrence Hall of Science Monograph, 1998), *How Science Curriculums Reflect Brain Research* (Phi Delta Kappan article, November 1998), one of several authors of *Teaching for Inquiry* (National Science Education Standards Addendum, 2000), *Developing Minds* (Association for Supervision and Curriculum Development, 2001), and *The Nature of Inquiry* (NRC, Science, Technology, and Children, 2002).

Professor Lowery has also received numerous awards: *Outstanding Science Educator of the Year* (1992) Association for the Education of Teachers of Science (AETS); *Distinguished Career In Science Award* (1993) National Science Teachers Association (NSTA); *Best Software Program in Mathematics* (1996) *Peter Rabbit's Math Garden*, Newsweek Editor's Choice; *President's Quality Gold Award* (1998) Sandia Laboratories for Distinguished Program (LASER) in Science Education; *Induction into the Science Hall of Fame* (2002)- State of Texas award for contributions made to science education.

Chair:

❖ **Kit Bishop, Daisy Ingraham School, Westbrook** ❖

Co-Chair:

❖ **Lou Pear, West Hill School, Rocky Hill** ❖

Members:

Dr. Gary Rosato, Great Plain School, Danbury

Gail Karwoski, Daniels Farm School, Trumbull

Jacqueline Norcel, Tashua School, Trumbull

Dr. Maureen Fitzpatrick, Killingworth School, Killingworth

Gilbert Rebhun, Ridge Hill School, Hamden

Gina Vance, Hebron Ave. School, Glastonbury

Maureen Walsh, Willard School, Berlin

Dr. Robert Carroll,

CAS Assistant Executive Director

**CT ASSOCIATION OF
ELEMENTARY
SCHOOL PRINCIPALS**

- President** **Dr. Allen Fossbender, Joel Barlow H.S.,
Redding**
- Vice Pres.** **Dr. Elaine Bessette, Greenwich H.S.,
Greenwich**
- Secretary** **Donald Gates, Portland H.S., Portland**
- Treasurer** **Michael Rafferty, Old Saybrook Middle
School, Old Saybrook**
- Past Pres.** **Anthony Molinaro, King Street Intermediate
School, Danbury**

**CAS BOARD OF
DIRECTORS**
Officers

Board of Directors

Andrienne Longobucco, Litchfield Center School, Litchfield - CHAIR

Louis Pear, West Hill School, Rocky Hill - VICE CHAIR

Paula Erickson, O'Connell Elementary School, East Hartford

Edward Handi, Green Acres Elementary School, North Haven

Michael Galluzzo, East Farms School, Farmington

Karen Smith, Derynoski School, Southington

Kit Bishop, Daisy Ingraham School, Westbrook

Gail Karwoski, Daniels Farm School, Trumbull

Jacqueline Norcel, Tashua School, Trumbull

Roberta Jacovino, Rotella Magnet School, Waterbury

John Cook, Wakelee School, Wolcott

Renata Lantos, Bielefield School, Middletown

Gina Vance, Gideon Welles School, Glastonbury

Dr. Gary Rosato, Great Plains School Danbury - PAST CHAIR

Dr. Robert Carroll, Assistant Executive Director, CAS, Consultant

CAS CENTRAL OFFICE PERSONNEL

MICHAEL H. SAVAGE, EXECUTIVE DIRECTOR, CAS-CIAC

Dr. Robert F. Carroll, Asst. Executive Director, Elementary

Earle G. Bidwell, Asst. Executive Director, Middle Level

Dr. Michael Buckley, Asst. Executive Director, High School

Anthony C. Mosa, Asst. Executive Director, CIAC

Karen Packtor, Asst. Executive Director

Thomas F. Galvin, Director, CT Principals' Center

Ann H. Malafrente, Director of Unified Sports

J. Robert Ford, Director of Development

Morning Workshops
Please pick 1st and 2nd choices

1 Designing Curriculum Based Upon How Students Learn

Some fundamental ideas related to learning math and science are important for framing activities or curriculum. These ideas will be exemplified through some hands-on experiences that demonstrate how teaching and learning work together. Be ready to learn something you did not already know.

Presenter: Lawrence Lowery

2 Moving from Arithmetic to Algebra The National Council of Teachers of Mathematics (NCTM) and

the State of Connecticut each have a standard that calls for Algebra to be taught from the earliest grades. We will look at how arithmetic in an elementary classroom can lead to algebraic thinking. Come prepared to explore hands-on activities!

Presenter: Charlene Tute Nichols, Math Consultant, SDE

3 Achieving the Vision of the New Science Curriculum Framework: Looking Beyond Who Teachers What!

Do you and your colleagues find yourselves fretting over whether your favorite dinosaurs unit must become extinct or snarling about who gets to teach about electricity? This workshop, facilitated by SDE Elementary Science consultant Liz Buttner, will help you see that “aligning” your school curriculum with Connecticut’s new Science Curriculum Framework means much more than simply deciding *what* is taught; the bigger change will come in *how* science is taught, learned and assessed. Through group discussion and individual reflection, learn about the 5 elements of effective school science programs, and how your school can make a strategic plan for making science meaningful, exciting and memorable for all students.

Presenter: Liz Buttner, SDE Elementary Science Curriculum Consultant

1 Designing Curriculum Based Upon How Students Learn

Some fundamental ideas related to learning math and science are important for framing activities or curriculum. These ideas will be exemplified through some hands-on experiences that demonstrate how teaching and learning work together. Be ready to learn something you did not already know.

Presenter: Lawrence Lowery

2 Moving from Arithmetic to Algebra

The National Council of Teachers of Mathematics (NCTM) and the State of Connecticut each have a standard that calls for Algebra to be taught from the earliest grades. We will look at how arithmetic in an elementary classroom can lead to algebraic thinking. Come prepared to

explore hands-on activities!

Presenter: Charlene Tute Nichols, Math Consultant, SDE

Afternoon

3 Achieving the Vision of the New Science Curriculum Framework: Looking Beyond Who Teachers What!

Do you and your colleagues find yourselves fretting over whether your favorite dinosaurs unit must become extinct or snarling about who gets to teach about electricity? This workshop, facilitated by SDE Elementary Science consultant Liz Buttner, will help you see that “aligning” your school curriculum with Connecticut’s new Science Curriculum Framework means much more than simply deciding *what* is taught; the bigger change will come in *how* science is taught, learned and assessed. Through group discussion and individual reflection, learn about the 5 elements of effective school science programs, and how your school can make a strategic plan for making science meaningful, exciting and memorable for all students.

Presenter: Liz Buttner, SDE Elementary Science Curriculum Consultant