



Champlain Valley Educator Development Center

Collaborative Professional Learning to Support Vermont Schools

Constructing Number Sense

Instructor: Betsy Allen, M.Ed., COA, ETSD Math Coach

Target Audience: Math Teachers – K-5

This 3 credit course will examine research on how students develop a deep understanding of number and mathematical thinking. Participants will look at both the learning progressions and the standards progression from concept of number to additive reasoning and fact fluency in the Vermont Common Core State Standards. The course will explore instructional and assessment strategies, analyze student work to identify where students are on a learning progression and plan next instructional steps. Participants will collaborate with other teachers to strengthen and/or develop their numeracy units, **including formative assessments** and instructional strategies and lessons, with **integrated technology**. The class will deepen their own content knowledge by interacting with materials, research based readings, and class discussions.

Participants will:

- deepen their own content knowledge of numeracy and additive and algebraic reasoning.
- know and understand the applicable content and the learning progressions of the Common Core State Standards across grade levels.
- know the cognitive research about how children construct number sense, addition, and subtraction concepts and fact fluency.
- learn how to identify where students are on a learning progression by analyzing student work.
- develop a variety of instructional strategies to promote student learning including formative assessments as an instructional strategy.
- explore technology applications and games during the course to incorporate in their instruction.

Betsy Allen is the District Math Coach in the Essex Town School District. After she graduated from the Vermont Math Initiative, she was the Math Coach at Hardwick Elementary School. She has worked for the Vermont Agency of Education as a Math Network Leader. More recently she represented Vermont in several Smarter Balance Assessment projects. In addition she has reviewed and submitted lessons in the Digital Library. She is a member of the Vermont Primary and Numbers Team under the leadership of Loree Silvis. She teaches both undergraduate and graduate courses for elementary teachers of mathematics.



Dates: *Date change
Saturdays 11/19 & 12/3*

And
Wednesdays
9/21, 10/19, 10/26,
11/30 & 12/7
Plus 4 online hours

Hours:
Saturdays: 9 – 4 pm
Wednesdays: 4 - 8 pm

Location:
CVEDC Classroom,
Fort Ethan Allen,
Colchester

Cost:
\$1100 CVEDC Member
\$1200 Non member
***(Includes 3 St. Michael's
grad credits and 2 texts)***

NCTM: Developing Essential
Understanding of Number and
Numeration, PreK - Grade 2, 2010
OR

NCTM: Developing Essential
Understanding of Addition and
Subtraction PreK-Grade 2, 2011

AND

Melissa Conklin and Stephanie
Sheffield It Makes Sense! Building
Number Sense with the Hundreds
Chart K-2, 2012

OR

Melissa Conklin, It Makes Sense!
Using Ten-Frames to Build Number
Sense, Grades K-2, 2012

To Register: www.cvedcvt.org

Questions? info@cvedcvt.org

Or call: 802-497-1642



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