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The mission of **CMASE** is topromote and provide excellencein **STEM** (science, technology, engineering and math) education**.**The professional developmentopportunities through CMASEare ADE-approved, standards–based, grade-level appropriateand can be tailored to fit...⇒School/District specifications⇒ National and state initiatives⇒ Content/grade level requests⇒ Common Core State Standards⇒ Arkansas K-12 Science Standards⇒ Education listservs for STEM information dissemination⇒ ACT Aspire AssessmentFor more information regarding Thinking Mathematically, please contact  Tonia Crow Math Specialist tmcrow@uark.edu |  |

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|  | http://cmase.uark.edutmcrow@uark.edu |  |
| Thinking MathematicallyWAAX 202#1 UniversityFayetteville, AR 72701 | Tel 479.575.3875Fax 479.575.5680 |  |

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| Thinking Mathematically |
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| Professional Development program for teachers and administrators in grades 5-8 |
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| Workshop Participants will:* Engage in a comprehensive researched-based approach to mathematics instruction based on how students think about math.
* Assess students' thinking and design problems that will develop students' understanding of the important concepts and skills.
* Facilitate discussions that provide a window into students’ thinking, strengthen student's computational fluency, and build their capacity for algebraic reasoning.
* Learn to engage students in proportional reasoning and other algebraic tasks.
* Apply learning to TESS domains.
* Analyze story problems and number sentences to determine the mathematical demands and recognize student responses in terms of cognitive development.
 |  | https://lh3.googleusercontent.com/BD2BuRpRUBMY_1_RTCQioW5yAcTNWZC6_9y7yCuJCN_sGrfSgCUVfj1tpwuKK7kNqkdvBTekHrmLWxHiRGWQuQU4_G6mlTLbhpuJiVO1F4Spy912gusYfI1xp2bsLjCfh1v250naX6OmWhat we offer:*Come learn how to help to guide your students in problem solving of mathematics by understanding their thinking.** 3 days of professional development in the summer (July 29-31)
* 4 follow up days during the school year
* Professional network expansion

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Presenters:Tammy Guthrie  Instructional Facilitator Springdale Public SchoolsLaura Kent  Associate Professor University of Arkansas |   | Testimonials“Be a problem solver, NOT an answer getter!’  I love this motto for math and I love the skills that Thinking Mathematically has taught me to help students do exactly that.  It is a joy to watch students grapple with expressing their thinking to their fellow classmates.  I love it when they disagree and an intellectual conversation begins.  This way of teaching math takes the “just tell me how to do it” out and puts the “WOW!  I never thought of it that way before” into it.  Math is a creative subject and Thinking Mathematically allows my students to be creative thinkers in Math.”*--Katie Bouwhuis, 6th grade math teacher, Bright Field Middle School, Bentonville, AR*"As an administrator, this training has benefited me exponentially. Not only do I understand the benefits of Thinking Mathematically strategies but I can have productive conversations with my teachers regarding student growth. I have not seen a better way to differentiate instruction while scaffolding a given learning target."“It helps to have great trainers too!!!”*--Budd Smith, Assistant Principal at Randall Lynch Middle School, Farmington, AR* |