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| |  | | --- | |  |     The mission of **CMASE** is to  promote and provide excellence  in **STEM** (science, technology, engineering and math) education**.**  The professional development  opportunities through CMASE  are ADE-approved, standards–  based, grade-level appropriate  and 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 Assessment  For more information regarding Thinking Mathematically, please contact  Tonia Crow  Math Specialist  [tmcrow@uark.edu](mailto:tmcrow@uark.edu) |  | |  |  |  | | --- | --- | --- | |  |  |  | |  |  |  | |  | http://cmase.uark.edu  tmcrow@uark.edu |  | | Thinking Mathematically  WAAX 202  #1 University  Fayetteville, AR 72701 | Tel 479.575.3875  Fax 479.575.5680 |  | |  | |  | | --- | | Thinking Mathematically | |  | | 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 Schools  Laura 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* |