

## Math, Science, Technology 2011 @ MSU

Eleven middle-school students joined the Nuclear Astrophysics class of MST 2011. Taught by JINA faculty, graduate students, and staff, the two-week course served as an intensive introduction to nuclear science, stellar evolution, cosmic rays, and current JINA research. The students simulated stellar nucleosynthesis in a game, where "random" events (determined by rolling dice) caused their marble nuclei to capture protons, neutrons, or alpha particles. The marble nuclei were also used in a gravity based accelerator to simulate fragmentation. The students also learned spectroscopy and performed experiments with portable cosmic ray detectors. Students ended the course with a poster session to explain their research to parents.



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Web Site:  
<http://gifted.msu.edu/programs/math-science-and-technology-msu>

<http://www.jinaweb.org/html/jinaprograms.html>