Let's Debate!

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Presentation can be found at: gvsu.edu/s/0FB
Kathy Agee
Science Program Coordinator
ageek@gvsu.edu
Regional Math/Science Center
Grand Valley State University
gvsu.edu/rmsc

GVSU RMSC Job Openings:
- MiSTEM Network Region 8 STEM Education Coordinator
- MiSTEM Network Region 8 Business, Community and Education Liaison
GOALS

- Next Week
- Next Year
- Culture/examples
- Resources
Silent Argument

We should send a manned spacecraft to Mars

We should NOT send a manned spacecraft to Mars
Argumentation has its basis in:

- **CLAIM:** A statement about the solution to a problem or answer to a question.
- **EVIDENCE:** Scientific data that supports the claim.
- **REASONING:** A logical scientific argument that explains why the data counts as evidence in support of the claim.
What is Debate/Argumentation?
Writing Across the Curriculum: Science

➢ Developed by the Michigan Department of Education in conjunction with MSTA & the Office of School Improvement
Example: Position Paper

As a performance assessment task for a science unit, students take a position on a controversial societal issue related to the scientific concepts addressed in the unit.

Environmental Issue Advocacy Plan

As a member of an Environmental Advocacy Committee you have been asked to evaluate a situation that endangers a given ecosystem. Different solutions to the problem have been proposed. You will take a position on which solution is best and defend your position. You and your committee must convince the community that the solution you propose is not only the best option, but is also both workable and realistic.

Your position paper will include:

- An analysis of the ecosystem in question (i.e. shoreline).
- A clear definition of the scenario problem (i.e. drilling offshore, construction of a new condominium complex on the shore).
- A workable/realistic solution to the problem with justification for the proposed solution (i.e. regulations that should be enforced).
- An alternative solution that may be proposed and why this option is less desirable.
Exothermic or Endothermic?
Animal or Plant Cell?
Gneiss or Granite?
THE DEADLY FACTS ABOUT WATER!

**FACT!**
WATER CAN BE CHEMICALLY SYNTHESIZED BY BURNING ROCKET FUEL!!!

**FACT!**
OVER CONSUMPTION CAN CAUSE EXCESSIVE SWEATING, URINATION, AND EVEN DEATH!!!

**FACT!**
100% OF ALL SERIAL KILLERS, RAPEST AND DRUG DEALERS HAVE ADMITTED TO DRINKING WATER!!!

**FACT!**
WATER ONE OF THE PRIMARY INGREDIENTS IN HERBICIDES AND PESTICIDES!!!

**FACT!**
WATER IS THE LEADING CAUSE OF DROWNING!!!

**FACT!**
100 PERCENT OF ALL PEOPLE EXPOSED TO WATER WILL DIE!
Climbing the Pyramid

Helping students evaluate science news sources

Printable materials
“Restoring” the Grand River

MSTA conference next year!
It’s Debatable
NSTA Press
Sample Chapter
The Language of Argumentation
Using debate to spark interest and learning in science

Laurie Taylor
TURNING THE SCIENCE CLASSROOM INTO A COURTROOM
Engaging In Argument from Evidence
by Douglas Llewellyn and Amanda Adams