Making the Case for Including the Arts in STEM Courses

The Latino Education Summit
September 19, 2015
Dr. Anne Papakonstantinou
Director
Rice University School Mathematics Project
apapa@rice.edu
STEM Courses Develop

• Critical thinking and problem-solving skills
• Creativity and abstract thinking
• Innovative thinking
• Persistence
• Collaboration skills
• Communication skills
The Arts Develop

- Critical thinking and problem-solving skills
- Creativity and abstract thinking
- Innovative thinking
- Persistence
- Collaboration skills
- Communication skills
Sol LeWitt (1928-2007)

• Founder of Conceptual Art
  Wall Drawings
• Structures (3-D sculptures)
“Wall Drawing 419”
Structure – “One, Two, Three”
Anila Quayyum Agha

- Mixed media artist
- Born and grew up in Pakistan
- BFA in Textile Arts in 1991
- MFA in Fiber Arts in 2004
- Currently lives in Indianapolis
- 2014 Alpha Omega Prize for Artist of the Year for “Intersections”
“Intersections”
Alexander Calder (1898-1976)

- Mechanical Engineer
- Kinetic Sculptures
- Presidential Medal of Freedom
Archimedes’ Law of the Lever

“Magnitudes are at equilibrium at distances reciprocally proportional to their weights.”
Archimedes’ Law of the Lever

\[ W_L \times D_L = W_R \times D_R \]
Rice University School Mathematics Project
http://rusmp.rice.edu