



**Fusion Science Theater (FST) Shows** are short, interactive shows that use demonstrations, prediction, story, and embodied learning to investigate age-appropriate science concepts. This arts-integrated, STEAM-driven approach produces significant gains in learning, interest and self-efficacy in science.

**Target audience:** Grades 1 through 5.

**Kit Contents:** Each kit includes a show script, a video of a live performance of the show, materials and prop list, instructions for show assessment, and the Fusion Science Theater Handbook for training and performance tips.

**Featured Shows for Spring 2014\*:**

**If I Were an Atom** [\$100]

An interactive, kinesthetic dramatization of how atoms move in the solid phase. (6 min)

Concept: Kinetic Molecular Theory

Preview <http://youtu.be/15MXtFDJdCo>



**Bouncemania!** [\$150]

This one-person, street-style show features a “Wrestlemania”-style match between Smart/ Stupid balls. The audience predicts which contestant will be crowned “The World’s Bounciest Ball.” (12 min)

Concept: Molecular structure determines polymer properties

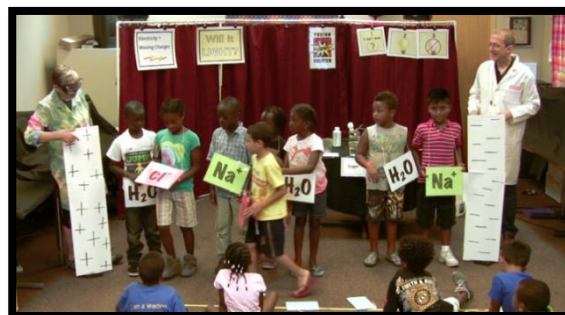
Preview: <http://youtu.be/K110bldmgPQ>

**Will It Light?** [\$200]

A scientist and silent assistant lead this investigation into the nature of conductivity by testing and modeling the flow of electricity through select substances. (25 min)

Concept: Conductivity of pure substances and solutions

Preview: [http://youtu.be/vlz\\_v3sETnU](http://youtu.be/vlz_v3sETnU)



\*If you order all three show kits, receive a package discount of \$50!

**Performance Requirements:** Interactions with the audience are guided by instructions based on FST principles. The rest of the show is scripted to maintain educational integrity and scientific accuracy and must be fully memorized by performers.

**Space Requirements:** Shows requires a 7' by 6' playing space. Children sit on the floor directly in front to maximize engagement.

**Copyright and Credit:** Holly Walter Kerby and Fusion Science Theater must be credited on all materials (video, print, digital and virtual) associated with the production of any FST show.

Kits are now available! Please allow 2 weeks for shipping and handling.

To order, visit: [www.FusionScienceTheater.org](http://www.FusionScienceTheater.org) or contact [hkerby@madisoncollege.edu](mailto:hkerby@madisoncollege.edu)



### \*\*\* More Information for ACS High School Chemistry Clubs \*\*\*

Like chemical demonstration shows, Fusion Science Theater (FST) shows are engaging, exciting, and feature fun demonstrations. But FST shows are different than traditional demonstration shows in a numbers of ways:

- They are inquiry-based. Each show is an investigation of a question that motivates the audience to learn a basic chemical concept. These investigations are led by one or two characters that guide and support this inquiry-based problem-solving process.
- They are interactive. Children in the audience participate in the shows through Q & A, call and response, voting for their prediction of what will happen in the demonstration, and getting up on stage to play the role of molecules or atoms in a dynamic model of the fundamental concept.
- They really teach age-appropriate concepts like vaporization, conductivity, combustion, rates of reaction, and the relationship between molecular structure and material properties. This learning is evaluated through assessment embedded in the structure of the show.
- They use theater techniques and elements to keep attention, inspire interest, model concepts, and reward learning. This cross-disciplinary approach makes Fusion Science Theater one of the few STEAM (Science, Technology, Engineering, ART, and Math) projects that is verifiably education.

Everything you need to perform a Fusion Science Theater show is available in performance kits. These kits include a Performance Training Manual that gives rehearsal schedules, tips for memorization, and how to interact with the children in the audience. These kits have been used by volunteers and staff at science centers and museums like the Science Museum of Minnesota (Minneapolis) and Carnegie Science Center (Philadelphia) and have been performed by middle and high school students in outreach programs at museums and universities. They have also been performed with great success by ACS Undergraduate groups across the country.

Fusion Science Theater is funded by the National Science Foundation and is directed by Holly Walter Kerby, a playwright and community college (and former high school) chemistry teacher. Kerby will be a keynote speaker at the upcoming Biennial Conference on Chemical Education (BCCE) and has presented the "Making Demos Matter" Undergraduate Program for the last 5 ACS Spring National Meetings.