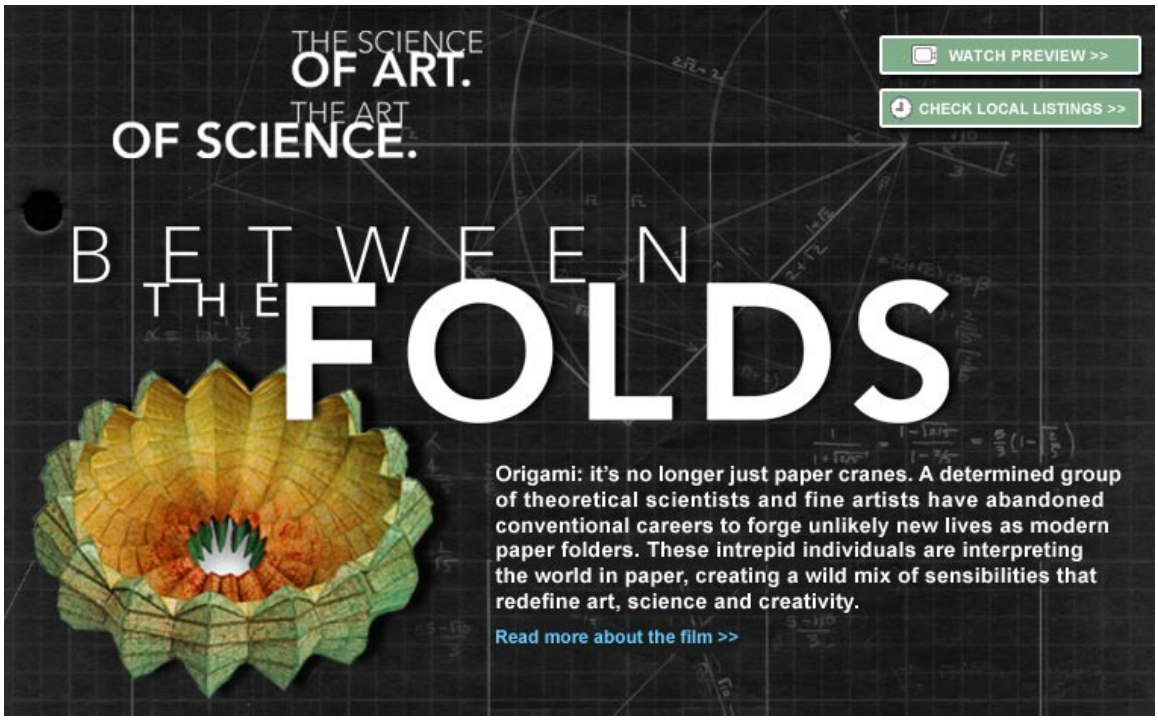
Theory of Knowledge—Networking Session—February 19, 2010



http://www.pbs.org/independentlens/between-the-folds/

Connecting Art, Science, and Mathematics Using Paper Folding (Origami)

Resources:

- *Between the Folds*— www.betweenthefolds.com / www.pbs.org/independentlens/between-the-folds --a documentary which connects the art, science, math, creativity, and meaning
- Resource Guide-- http://www.pbs.org/independentlens/between-the-folds/resources/betweenthefolds_discussion.pdf --the guide offers background information, "Thinking More Deeply" discussion questions, suggestions for action, and a great list of resources.

My students made group presentations on the Areas of Knowledge—choosing the one they felt they had the most knowledge of and were the most comfortable with. In the presentations, the students were to make connections to the other Areas of Knowledge and Ways of Knowing, and in doing that, they were able to see how the components all fit together. I saw this film on PBS and saw immediately a connection to TOK's purpose for students. The filmmaker, Vanessa Gould, states—

> For as long as I can remember, the driving impulses behind art, science, sculpture, and math have felt deeply connected—all way of interpreting our experiences in a language that's universal. When I first learned about the curious phenomenon of fine artists, scientists, and mathematicians from all over the world working in the very same medium of origami, I knew there had to be something special about it—that in the simplicity of a paper square some untold potential for new connections and ideas must be hiding.

The film offers students a new way of looking at a simple art form. The potential for applying paper folding in practical applications is endless—origami math, solar sails, air bags, camera lenses, space telescopes, stents, DNA nanoscale creations, protein folding—and the list goes on and on. The students were amazed at the possibilities that paper folding provided not only as an art form, but also in medicine, engineering, and math.

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