Equilibrium Demonstration: The Bad, the Good and the Ugly
(Special Thanks to Mike Roadruck, Otta Hills High School, Toledo, OH and Flinn Scientific)

Materials:
#3 Grocery Bags, Film Canister Caps and Vials

Directions:

Add 15-20 film container vials and caps to a large aquarium. Select two volunteers. Position the participants on either side of the aquarium in full view of the student audience.

Put grocery sacks over their heads and have one of them reach into aquarium and assemble the vials and caps. At the same time, have the other volunteer reach into the aquarium and disassemble the vial and cap units.

- Have students note the progress of the system from reactants to a mixture of reactants and products.
- Note the establishment of an equilibrium.
- Also note that the reaction is favored in the decomposition direction.
- This is a great activity as an introduction to the concept of rate determining steps.

NOTE: To make it even MORE challenging, after the student participants become a little comfortable in their activity, remove the "disassembler's" grocery sack unbeknownst by the "assembler." You must be sure to clue your student audience in to not let the one student question what has happened by the response of the audience.