Obtain two one-gallon fish bowls. Fill one mostly full with tap water. Add some food coloring for visual effect. Give one student a full cup measuring cup and give another student a half cup measuring cup. Tell the students that they may not pick up or tilt the fish bowls. The student with the full cup should scoop as much water out of the full bowl and place it in the empty bowl. The student with the half cup will then scoop as much water out the fish bowl with a small amount of water in it and place it back into the bowl that is mostly full. Each student takes turns scooping water back and forth. It is not a race!

Ask the students (and the audience) to determine when equilibrium has been established.

At equilibrium, there will be a much smaller amount of water in the bowl closer to the student with the one cup measuring cup.

Points to emphasize:

1. It may take a considerable amount of time to reach equilibrium.
2. At equilibrium, there is not necessarily a $50: 50$ ratio, in fact there is rarely a 50:50 ratio at equilibrium.
3. In a chemical equilibrium, there is no separation of reactants and products.
4. At equilibrium, the rate of change is equal.

