This dance demonstrates bond and molecular movements to students by having the students do the “moves” one by one. Then, they put all the movements together at once, just as a molecule does. Students should think of themselves as water molecules: Their bodies are the oxygen atoms and their arms/fists are the hydrogen atoms.

**Bond Movements**
1. Stretching (symmetric or asymmetric) – Students stretch out their arms and contract them in, sometimes symmetrically and sometimes asymmetrically, showing how bonds stretch and contract.
2. Bending – Students bend their arms up and down, side to side, diagonally, showing how bonds bend around.
3. Rotating – Students twist their arms around, showing the rotation of a bond.

**Molecular Movements**
1. Vibration – The molecule vibrates because of all the bond movements going on within the molecule, so the students do all of the bond movements together, shaking their bodies to simulate this.
2. Rotation – Molecules rotate, so students spin around to show rotation. I avoid having the students do somersaults and cartwheels, but I do tell them that the molecule would rotate all different ways.
3. Translation – Molecules move around, so students move from one place to another in a straight line until there is a collision. For the group activity, the collisions should be gentle and elastic!!

Put all of these moves together, and you have the Molecular Dance!