

H2Olympics Activity Extension

One primary objective of the H2Olympics activity in Project WET is to help students understand the adhesive and cohesive properties of water.

As an introductory (“warm-up”) activity, the following game enforces the meaning of *adhesion*, *cohesion*, and *surface tension*.

First, begin by explaining the meaning of the new vocabulary.

Cohesion: *the attraction between water molecules and other water molecules.*

Adhesion: *the attraction between water molecules and the molecules of other materials like glass or soil.*

Surface Tension: *the elastic-like cohesive force between water molecules that creates a film-like surface on top of water.*

Explain to students that they will be acting as water molecules, and will demonstrate adhesion, cohesion, and surface tension.

Begin with the students in a circle. Have everyone link arms together, to form one chain. Explain to the students that this motion represents **COHESION**– all the water molecules are attracted and “connected” together.

Then, use a large prop (i.e. a hula hoop, large stuffed animal, etc.), and have everyone place their hands somewhere on the prop. Explain to the students that they (the water molecules) are attracted to another surface, which demonstrates **ADHESION**.

Finally, have all the students stand in a tight circle with both of their arms in front of them, palms up. This action should create a surface of hands in the center of the circle. Explain to them that sometimes, the **SURFACE TENSION** of water molecules is strong enough to hold objects (like paper clips). Place your prop in the center of the circle, on top of the hands of the students.

Once you are done explaining the actions, explain to the students that you will be directing the group by yelling out the different commands – adhesion, cohesion, and surface tension. The group must quickly use teamwork to complete the correct formation for each command. The commands should start out slowly at first, and then quicker once the students are used to the formations and commands.

 **Balance**
Beam 

 **Pole** 
Vaulting

 **Backstroke** 

  **Slalom** 