



H2Olympics

Tips for Educators Using this Lesson at Home

This lesson is correlated to Grades 3-8 and recommended for upper elementary and middle school aged children. The lesson is correlated as written in the *Project WET Curriculum and Activity Guide 2.0*. Correlations are meant to show how activities support a standard, performance expectation and/or three-dimensional learning. NGSS correlations are provided in detail in a separate document to demonstrate how the content of this activity provides a three-dimensional learning experience. Common Core State Standards correlations for grade spans assume that teachers will be familiar with the standards for their respective grade level(s) and be able to apply them judiciously.

Summary: Students compete in a Water Olympics to investigate two properties of water, adhesion and cohesion.

Common Core: *ELA:* RI.3-4.3; RST.6-8.3; RST.6-8.9; *Math:* 3.MD.4

NGSS: n/a

Although this activity—as it was written—does not correlate to any NGSS, the idea of cohesion and adhesion of water is key to understanding some life science information, such as how trees can get water high up in the trunk and how soils hold on to water. It is too specific and not a broad enough concept to be addressed in NGSS. This lesson is still a foundation that is important in understanding phenomena, especially in plants and trees.

1. Instruct students to go through the digital lesson at their own pace. You may also want to ask them to take pictures or video logs of the activity as they complete it or to write down the results of each event.
2. Give students the link to the digital lesson: <https://lessons.projectwet.org/h2o-olympics/>
3. Students will go through the lesson at their own pace. They will print or photograph the proof of completion at the end of the course to submit to you.
4. Ask students to turn in their results from each event or enter it in a class spreadsheet.
5. Compare results with the class, if possible. Share the tops winners of each event.
1. Option: Have students watch the video about surface tension of water in space: <https://www.youtube.com/watch?v=o8TssbmY-GM>

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Home Water Lessons

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7. Have students read about capillary action that uses cohesion and adhesion in plants much like paper towels absorbing water. USGS: Capillary Action https://www.usgs.gov/special-topic/water-science-school/science/capillary-action-and-water?qt-science_center_objects=0#qt-science_center_objects.
8. Keep a log for a few days of where Discuss where in nature students see the properties of cohesion and adhesion at work. You could have them keep a log of observations in their house and neighborhood over a few days.
9. Follow the activity with Soap Science from DiscoverWater.org (<https://www.discoverwater.org/soap-and-water-science/>) for a better understanding of how soap interacts with water to clean our hands.

Tips for Parents Using this Lesson at Home

2. Give your child the link to the digital lesson: <https://lessons.projectwet.org/h2o-olympics/>
3. Allow them to go through the digital lesson at their own pace.
4. Have them watch the video about surface tension of water in space: <https://www.youtube.com/watch?v=o8TssbmY-GM>.
5. Have them go to Soap Science from DiscoverWater.org (<https://www.discoverwater.org/soap-and-water-science/>) for a better understanding of how soap interacts with water to clean our hands. This is a wonderful lesson to learn about the importance of soap in handwashing.
6. Read about capillary action that uses cohesion and adhesion in plants much like paper towels absorbing water. USGS: Capillary Action https://www.usgs.gov/special-topic/water-science-school/science/capillary-action-and-water?qt-science_center_objects=0#qt-science_center_objects.
7. Keep a log for a few days of where you observe cohesion and adhesion in nature or in your house.