This module can be used to reinforce (or to motivate) the learning of molecular structure, molecular polarity, intermolecular forces and colloids/micelles. It will be important to consider your audience when implementing this exercise as part of the faculty development workshop. You can tailor this exercise to the expertise of your audience; however, keep in mind that you might want to encourage your audience to approach this activity from a student's perspective.

1. Invite individual workshop participants to play with this interactive simulation of the activity of soap on stains for several minutes.

This activity is made available by CK-12 (www.ck12.org), an organization working to assist teachers with materials to support learning. Note: You may need to create an account to access this resource. https://interactives.ck12.org/simulations/chemistry/soap/app/index.html? _ga=2.89268701.734763283.1603473571-206458965.1603473571



2. Ask participants to work in small groups to discuss the science behind the action of soap in removing stains from clothing. For additional guidance, CK-12 provides a teacher guide with these simulations.

3. Another application: Applying what you know from how soap works: how might soap molecules interact with a virus?

Ask the groups to now consider why is soap effective at destroying the Covid-19 virus? Share information about the structure of Covid-19 virus. These screenshot images are part of the Scripps Research Institute video, "Coronavirus Anatomy Explained: Science, Simplified": https://youtu.be/8hgc2iZfITI (Illustrations by Hailee Perrett, Ward Lab, Scripps Research)



Viral Envelope A waxy barrier containing fat molecules. It protects the virus outdate of a host cell and anchors structures needed to infect a cell.

4. Once the groups come to consensus on an answer, you might share this video, "How Soap Kills the Coronavirus" to reinforce the concepts: https://youtu.be/-LKVUarhtvE. This video is published by Vox (vox.com).

5. After workshop participants engage with one or more of these activities, consider using questions such as these in the debrief of the activity:

**Ask participants to share how they incorporate resources like these into their courses?

**All off-the-shelf resources will have limitations with respect to the way the content knowledge is explained. How might you be able to make it your own to support the content knowledge in your course?

**What other tools or resources might be used to reinforce science concepts in this module (e.g. molecular modeling software, etc.)?