

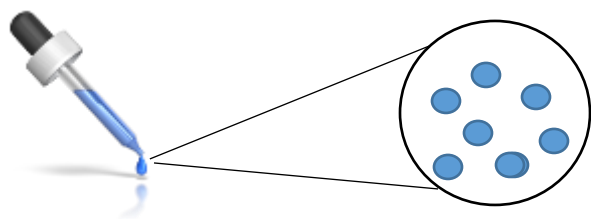
# 6<sup>th</sup> Grade Unit 1 Answer Keys

## (Edited version for public review)

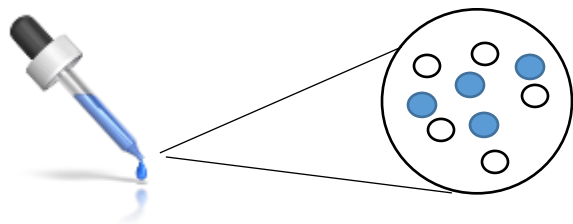
\*\*\* Below you will find answer keys for Grade 6 Unit 1 quizzes. Keep in mind these are only one set of possible acceptable answers as there may be other correct ways in which students may express their thinking and understanding.

### UNIT 1.1 Quiz

1. Sketch a dropper with a large water drop about to fall from it. Then imagine a dropper with soapy water that has a drop about to fall. Once the drops fall onto a table, do you imagine the soapy water drop will be the same or different than the plain water drop? Explain your reasoning.



2. Now imagine a dropper with soapy water in it. Sketch the dropper with a soapy water drop about to fall. Do you imagine the soapy water drop will be the same size, smaller or larger than the plain water drop? Explain.



Either would be acceptable:

*The soapy water drop will be the same size because the soap particles will go between the water particles.*

*The soapy water drop will be smaller because the water particles won't hang onto each other as well as the plain water.*

3. You observed a paperclip floating on and sinking in water. What was different between the floating and sinking situations? Explain why this difference occurred.

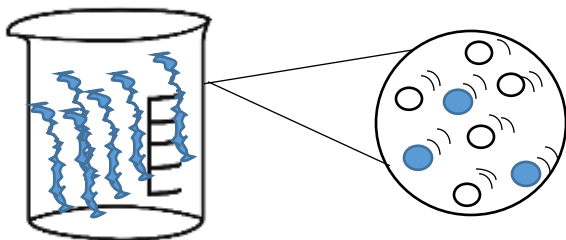
*The floating paperclip was held up by water particles. The water particles stuck strongly enough together that they could push up the paperclip together. When the soap was added the paperclip sunk because the soap particles got in between the water particles, which broke their strong attraction so they could no longer hold up the paperclip.*

4. You ran a water race on wax paper. Explain why you didn't run the race on paper towels. What was different about how water interacted with wax paper than with paper towels?

*The water race cannot be held on paper towels because the water would adhere. Water does not adhere to wax paper.*

5. Look at the pictures shown.

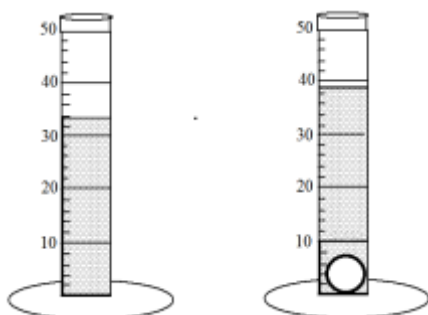
a. In which image is *cohesion* stronger than *adhesion*? How do you know?



*The hotter temperature causes the water particles and color particles move faster. The color particles move between the water molecules faster.*

### UNIT 1.3 Quiz A

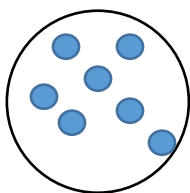
if a glass marble of the same size was placed in the same amount of water.



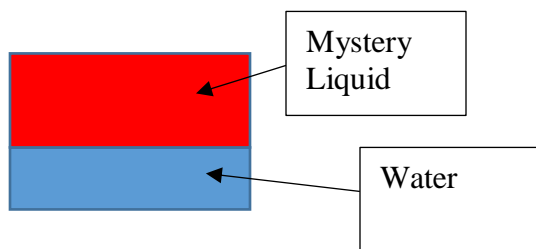
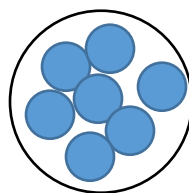
*A glass marble of the same size would take up the same amount of space. The volume of the steel marble and the glass marble is the same.*

1. Is the mass of the steel marble and the glass marble the same? Use words and pictures to explain your reasoning.

GLASS



STEEL



(Additional materials available in members' resources)