

Name:

Date:

Class:

## Understanding a Phenomenon - Part 1 Worksheet **Answer Key**

Based on our shared ideas as a class, we need to answer the following questions to understand why there was a difference in drop shape of pure water versus soapy water:

- What force(s) hold water particles together?
- How do soap particles affect the forces between water particles?

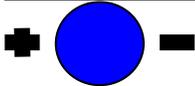
We need to learn some new things to help us answer the question of what force(s) hold water particles together. Take notes in the space below:

### Notes about “What force(s) hold water particles together?”

While we watch the [Properties of Water - Amoeba Sisters](#) video together, take notes on the terms listed below. Use words and drawings in your notes.

Molecules and atoms are also known as particles.

Water particles: Each one has a partially positive side and a partially negative side.



Hydrogen bonding:

Specific type of bond that holds water particles together.

Cohesion:

Attractive force between particles that are the same (e.g., water particles being attracted to each other).

Surface tension:

The level of attraction between particles at the surface of a substance. Substances with a high surface tension, like water, resist forces that try to flatten or break through their surface.

Turn this sheet over

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Now that we have learned about the properties of water to help us answer the question of what force(s) hold water particles together, revise your initial “Drop of pure water model.”

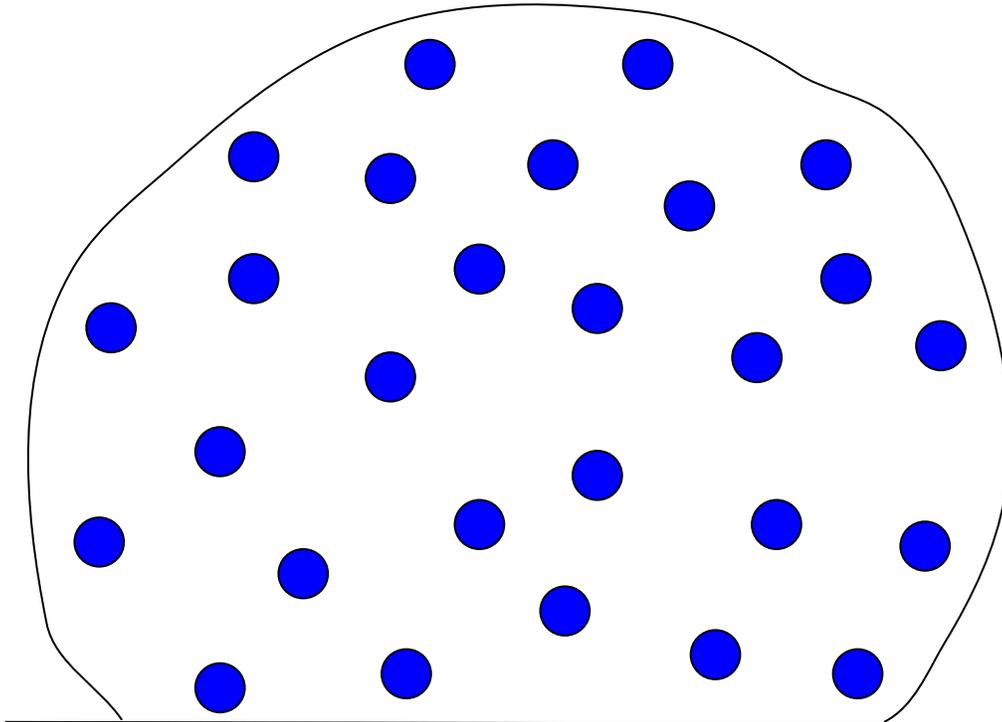
In the space below, complete the model to show what forces are involved on the drop as a whole and in between each particle that would cause the specific shape of the drop. Remember, this is your revised model—make sure to incorporate what you've learned from your “Notes about 'What force(s) hold water particles together?’”

Refer to the “KEY Revised drop of pure water model” file

### Revised drop of pure water model

Use drawings to share your ideas. Label each part of your drawing.

Blue circles = water particles



Briefly describe what revisions you've made to your model:

Answers will vary.