Dear Families:

Today we took advantage of the hot temperatures and headed outdoors to investigate buoyancy in water. We had a great time experimenting with rocks, boats, corks, coins, balls and pumice stones.

The children took turns dropping objects into the water and recording their predictions about whether they would sink or float on a chart. Children usually guess that items will sink or float based on their size or weight. An example of this is a pebble or a marble. Pebbles and marbles are very small but also very dense, so they actually sink when many young scientists predict that they will float.

The pumice stone was big, so the children expected it to sink. But a pumice stone has hundreds of tiny air bubbles in it. When a pumice stone is formed from lava during a volcanic eruption, the volcano's force pushes air into the hardening lava, causing lots of air pockets. These air pockets make the pumice stone very light, which makes it float. A pumice stone usually floats for a while, but then water seeps into the air pockets and it starts to sink.

Next, we decided to test a large ball from the gym. Many of the children were surprised to see it float because it was so big. Generally, the greater the surface area that touches the water, the more likely an item is to float. This is called buoyancy!

The next time your child is in a pool or a bathtub, try your own sink or float experiment. It’s a great way to teach your child about buoyancy—and it’s sure to generate a lot of laughs!