



This experiment demonstrates liquefaction. When the quarter is placed on slightly moist sand it is difficult to push it down into the sand. As pressure is applied to the bottom bottle, the water rises in the sand increasing the pore pressure. The result is liquefaction and the quarter is easily pushed into the sand. If the bottles are bumped or jiggled as in an earthquake, the quarter will fall through the sand by gravity. In addition the bottles can be tipped upside down and no sand will fall out until water pressure is applied to the bottom bottle. In this case, the soil will flow out or fall out of the bottle as it becomes saturated.

