

On the spot Design – Analysis and Prediction

When Archimedes shouted “Eureka!” and ran down the streets of Syracuse naked, he had “discovered” or realized that the buoyant force acting upward on an immersed body was equal to the weight of the water displaced by the body. (Note that Archimedes also investigated stability issues of boats in his books “On Floating Bodies I and II. Stability means that small perturbations don’t cause the boat to tip and take on water.)

Use the science of buoyancy to refine your design and predict penny capacity for final design (show instructor the entry before testing).

Show equations and sketches here (attach page if needed):

Group Members Names _____

_____ Original design penny capacity _____

Refined Design - Predicted penny capacity _____

Refined Design - Measured penny capacity _____