

Measurement Worksheet

Station 1

Object	Shape	Mass
A. 2-hole rubber stopper	Regular/Irregular	
B. Clear block	Regular/Irregular	
C. Pink block with hole	Regular/Irregular	
D. White block	Regular/Irregular	

Station 2

Object	Unit of measure		
	Arm	Finger	Millimeters
Lab table			
Lab stool			
Arm			
Finger			

Station 3

Object	Length	Width	Height	Volume
A. Black block				
B. Gray block				
Object	Initial Volume	Final Volume	Volume of water displaced	Object's volume
C. Quartz rock				
D. Bolt				

Station 4

Salt	Temperature of Solution					Endothermic or Exothermic?
	Initial	30 s	60 s	90 s	120 s	
Ammonium chloride						
Magnesium chloride						

Station 5

Viscosity Tube	Time
Corn syrup (room temperature)	
Corn syrup (ice bath)	
Polyvinyl alcohol solution (room temperature)	
Polyvinyl alcohol solution (ice bath)	

Post-Lab Questions *(Use a separate sheet of paper to answer the following questions.)*

1. Although the mass of the objects at Lab Station 1 were easily measured on a balance, how might the mass of extremely small objects be measured?
2. *a.* Using the data obtained from Lab Station 2, convert the measurement of the lab table and lab stool taken in arms and fingers into millimeters.
b. The measurements should theoretically be the same as those taken in millimeters using a ruler or meter stick. Were they? Why or why not?
3. Could the volume of an object with a regular shape be determined by using water displacement? Explain.
4. The dissolution of which substance at Lab Station 4 could be used to make a cold pack? Which one could be used to make a heat pack?
5. How does lowering the temperature affect the viscosity of the corn syrup and polyvinyl alcohol? What would be the effect of heating on the viscosity of these two liquids?