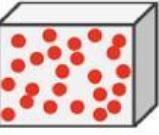
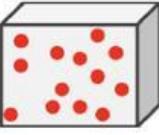
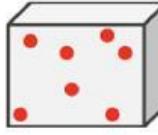
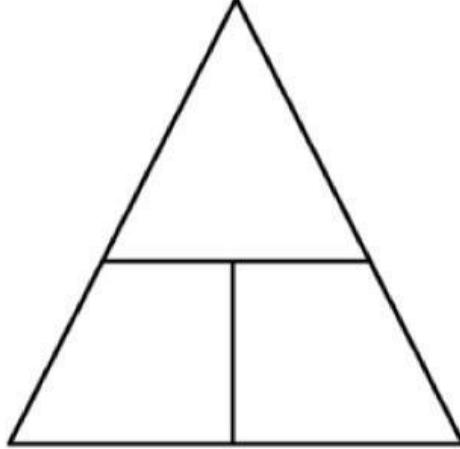


2.3 Prop & Changes of Matter

Activity 2: Density

Sample A 	Sample B 	Sample C 	Which has the greatest density? _____ Which has the least density? _____																
Fill in the Density Triangle: 			1. Unknown A: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Density:</td> <td style="width: 50%;">Mass: 1932 g</td> </tr> <tr> <td colspan="2">Volume: 100 cm³</td> </tr> </table> 2. Unknown B: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Density:</td> <td style="width: 50%;">Mass: 178.4 g</td> </tr> <tr> <td colspan="2">Volume: 20 cm³</td> </tr> </table> 3. Unknown C: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Density: 2.64 g/cm³</td> <td style="width: 50%;">Mass:</td> </tr> <tr> <td colspan="2">Volume: 55 cm³</td> </tr> </table> 4. Unknown D: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Density: 3.52 g/cm³</td> <td style="width: 50%;">Mass: 704 g</td> </tr> <tr> <td colspan="2">Volume:</td> </tr> </table>	Density:	Mass: 1932 g	Volume: 100 cm ³		Density:	Mass: 178.4 g	Volume: 20 cm ³		Density: 2.64 g/cm ³	Mass:	Volume: 55 cm ³		Density: 3.52 g/cm ³	Mass: 704 g	Volume:	
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Density: 2.64 g/cm ³	Mass:																		
Volume: 55 cm ³																			
Density: 3.52 g/cm ³	Mass: 704 g																		
Volume:																			
For the Unknowns on the right, calculate the missing value and then use the Table of Densities below to identify each of the unknown substances.			Table of Densities <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Solids</th> <th style="width: 50%;">Density g/cm³</th> <th style="width: 50%;">Solids</th> <th style="width: 50%;">Density g/cm³</th> </tr> </thead> <tbody> <tr> <td>Marble</td> <td>2.56</td> <td>Copper</td> <td>8.92</td> </tr> <tr> <td>Quartz</td> <td>2.64</td> <td>Gold</td> <td>19.32</td> </tr> <tr> <td>Diamond</td> <td>3.52</td> <td>Platinum</td> <td>21.4</td> </tr> </tbody> </table>	Solids	Density g/cm ³	Solids	Density g/cm ³	Marble	2.56	Copper	8.92	Quartz	2.64	Gold	19.32	Diamond	3.52	Platinum	21.4
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Quartz	2.64	Gold	19.32																
Diamond	3.52	Platinum	21.4																
5. Now let's calculate a half size sample of Unknown A: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Density:</td> <td style="width: 50%;">Mass: 966 g (half of 1932 g)</td> </tr> <tr> <td colspan="2">Volume: 50 cm³ (half of 100 cm³)</td> </tr> </table> 6. Did the density change?				Density:	Mass: 966 g (half of 1932 g)	Volume: 50 cm ³ (half of 100 cm ³)													
Density:	Mass: 966 g (half of 1932 g)																		
Volume: 50 cm ³ (half of 100 cm ³)																			