

EFFECTS OF ALCOHOL

Name _____ Date _____ Class Period _____

SERVING SIZE DEMONSTRATION

Purpose

This demonstration will help show how the three types of alcoholic beverages (beer, wine and liquor) can contain the same amount of alcohol although the total of volume of liquid in each drink is different. A 12 ounce glass of beer, a 5 ounce glass of wine and a 1.5 ounce glass of liquor all contain the same amount of alcohol. Some individuals would assume that since the beer is larger in volume (bigger in size), it must have more alcohol - - this is **NOT** true. The fact is, the three types of alcoholic beverages have different ratios of alcohol to other liquids (such as water, soda, fruit juices, flavorings and/or additives). The beer, for example, is larger in size not because it has more alcohol, but because it has more water and other ingredients such as barley, hops and grains.

Another way to look at this is by using the term “concentration” which is defined as: the amount of one particular substance (alcohol) in a given amount of another substance (additional liquids). The concentration of alcohol in beer is lower than the concentration of alcohol in wine; it is also lower than the concentration of alcohol in liquor. The liquor category is actually the most concentrated type of alcohol (on average 40-60% of liquor is alcohol); this is followed by the wine (which averages 10-12% alcohol), and the beer is the least concentrated (approx. 6-8% alcohol) - - you may also refer to the beer as the most diluted of the three drinks.

Remember, the total amount of alcohol in a typical serving of beer (12 ounces), wine (5 ounces) and hard liquor (1.5 ounces) is the same.

My Observations

What does the tap water represent in this demonstration? _____

What does food coloring represent in this demonstration? _____

Type of alcoholic drink	How much water was added to each glass? (to make one serving)	How much food coloring was added to each glass?	What color did the liquid turn?
			
			
			

Conclusions: What did you learn about the amount of alcohol in a serving compared to the amount of liquid (volume) in a serving?

Use the back of this sheet to draw a picture of what you observed and learned