Mixture and Solutions Activities Answer Sheet

(On the Web at http://www.udel.edu/sine/students/mixtures/)

100

Name:_

As you move each item from the bulldozer to the analyzer, record its name and what it contains. After the analyzer reports back, put a check in the correct column to indicate if this is a mixture or solution.

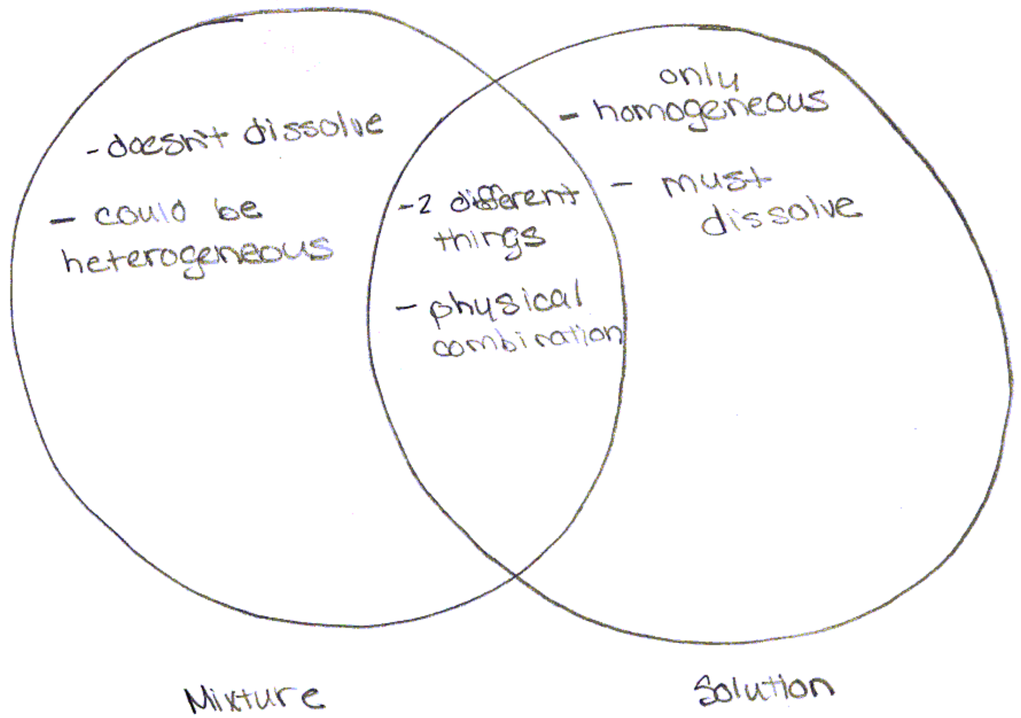
Item	Contains	Mixture	Solution
Baking soda	O = 58% Na = 27% C = 14% H = 1%		✓
Aluminum Can	100% Aluminum	✓	
Paper Cup	Paper = O = 53% C = 42% H = 2% N = 1%, Polyethylene C = 86% C = 14%	✓	
Soap	C = 71% O = 12% H = 11% Na = 6%		✓
Citric Acid	O = 59% C = 38% H = 3%		✓
Chair	Wood O = 53% C = 42% H = 2% N = 1%	✓	
Rice	C = 35% O = 33% N = 19% H = 10% Other = 3%	✓	
Alum	O = 52% S = 23% K = 14% Al = 10% H = 1%		✓
Vitamin C	O = 56% C = 42% H = 2%		✓
Calcium Chloride	Chloride = 64% Ca = 36%		✓
Polyester pants	C = 63% O = 33% H = 4%	✓	
King	Human = O = 65% C = 18.5% H = 9.5%		
	N = 3.3% Ca = 1.5% P = .4% Si = .3%		
	24K Gold = Au = 100% / Cotton = O = 56%		
	C = 42% H = 2% / Silk = C = 41%		
	O = 33% N = 19% H = 7%	✓	
Candelabra	Candle = C = 72% O = 15% H = 13%		
	Candlestick = Ag = 92.5% other = 7.5%	✓	
Fish skeleton	Bone = O = 37% Ca = 25% C = 15% K = 11% H = 5% N = 7%	✓	

Now that you have finished, what would you say is the difference between a mixture and a solution?

A mixture is a physical combination of substances. A solution is a homogeneous mixture.

What could you see on the Junkyard Analysis game to tell you if you had made a mixture or a solution?

A solution was usually given as little crushed up particles.



gravel + water = mixture

sugar + water = solution

glasses + water = mixture