

# Mixture and Solutions Activities Answer Sheet

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

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.

Cookle Steel 5.1w 92.5% 0.2w 7.5

| Item           | Contains                                                      | Mixture                             | Solution                            |
|----------------|---------------------------------------------------------------|-------------------------------------|-------------------------------------|
| Candelabra     | Candle - Carbon 70% Oxygen 15 Hydro 15%                       | <input checked="" type="checkbox"/> |                                     |
| El Fish Bone   | Oxygen 37% Calcium 25% Carbon 10% Nitrogen 10% Phosphorus 10% | <input checked="" type="checkbox"/> |                                     |
| Sed            | Oxygen 53% Silicon 47%                                        | <input checked="" type="checkbox"/> |                                     |
| Char           | Oxygen 55% Carbon 40% Hydro 2%                                | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Vitamin C      | Oxygen 56% Carbon 42% Hydro 2% Nitrogen 1%                    |                                     | <input checked="" type="checkbox"/> |
| Soup           | Carbon 71% Oxygen 12% Hydro 11%                               |                                     | <input checked="" type="checkbox"/> |
| Citric Acid    | Oxygen 59% Carbon 38% Hydro 3% Sodium 1%                      | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Pants          | Carbon 63% Oxygen 33% Hydrogen 4%                             | <input checked="" type="checkbox"/> |                                     |
| Tin Can        | Fe 98.5% Carbon 1.5%                                          | <input checked="" type="checkbox"/> |                                     |
| Bre            | Carbon 35% Oxygen 3% Nitrogen 1%                              | <input checked="" type="checkbox"/> |                                     |
| Paper Cup      | Oxygen 55% Carbon 42% Hydro 2% Nitrogen 1%                    | <input checked="" type="checkbox"/> |                                     |
| King           | Oh Back                                                       | <input checked="" type="checkbox"/> |                                     |
| Plastic Bottle | Water - Oxygen 89% Hydro 11% Carbon 6%                        | <input checked="" type="checkbox"/> |                                     |
| Aluminum Can   | Aluminum 100% Hydro 1%                                        | <input checked="" type="checkbox"/> |                                     |
| Sprach         | Carbon 2.3% Hydro 10.4% Oxy 84.5%                             | <input checked="" type="checkbox"/> |                                     |
| Alum           | OH BACK Nitrogen 5%                                           |                                     | <input checked="" type="checkbox"/> |
| Perlite        | Silicon 34% Aluminum 7% Pot. 1%                               | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Baking Soda    | Oxy 58% Sed. 27% Carbon 14% Sodium 3% Hydro 12.5%             |                                     | <input checked="" type="checkbox"/> |
| Aquarium       | Oxy 48 Calcium 40 Carbon 12                                   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

Sed - Oxygen 53% Silicon 47 Clay - oxygen 57% Silicon 47%

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

A mixture doesn't change its composition, and a solution loses composition, and turns into a new substance.

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

If the item COOL 'dunked' in the water was a solution, it would have created a new substance, Soap, Alum, Citric acid.

Human: Oxygen 65% Carbon 18.5% Hydrogen 9.5% Nitrogen 3.3%  
Calcium 1.5% Phosphorus .4% Silicon 0.3%

24K Gold - gold 100%

Cotton - Oxygen 56% Carbon 42% Hydrogen 2%

Silk - Carbon 41% Oxygen 33% Nitrogen 15%

Hydrogen 7%

Alum - Oxygen 52% Sulfur 23% Potassium 14%

Aluminum 10% Hydrogen 1%

Solution

