

Task 1: Chromatography

Materials needed:

- 1 strip of paper towel/chromatography paper
- Cup of water (1/2 full)
- 1 marker

Instructions:

1. With the black marker, draw a line across the paper towel (about 1 inch from the bottom).
2. Without letting the marker line hit the water, dip the paper towel in the cup and drape it over the cup. Observe

Analysis:

1. What is chromatography?
2. What colors do you see come out?

Task 2: Filtration

Materials needed: Filter Paper, Funnel, Test Tubes and Test Tube Rack

Instructions: Properly fold the filter paper.

1. Place a test tube in the rack.
2. Place the funnel with the filter paper into the test tube.
3. Make a solution by mixing together 25ml of water and 1 scoop of zinc oxide.

Record the results below:

Analysis:

1. What is filtration?
2. What type of mixture is this?

Task 3: : Creating a mixture

Follow all of the directions carefully!!!

Materials needed: glue, spoon, 2 cups, popsicle stick, borax, water

1. In 1 cup mix together **3** teaspoons of **water** and $\frac{1}{4}$ teaspoon of **borax**. **Mix together well.**
2. In separate cup mix together **1** **tablespoon** of **water** and **1** **tablespoon** of **glue**. **Mix together well.**
3. Pour the borax solution into a plastic bag, then pour the glue solution in to the bag, stirring with a popsicle stick.

Analysis:

4. What type of mixture is this?

Task 4: Sifting

Materials needed: Rock mixture, Screen

Instructions:

Devise a plan to separate the rock mixture using the tools that you are given:

Analysis:

1. What is sifting?
2. What items were able to pass through?
3. Why were some items separated by the screen and others were not?

Task 5: Sorting

Materials needed: 1 bag of Skittles

DO NOT EAT UNTIL ANALYSIS IS COMPLETE!!!

Instructions:

1. Pour the candy onto your lab sheet, **not on the table.**
2. Sort the candy based on type
3. Sort the types of candies based on color

Analysis:

Color of candy 2 Physical Properties

- 1.
- 2.
- 3.

Task 6: Magnetic Separation

Materials needed: Sand Mixture, Magnet (leave it in the bag at all times. NO MATTER WHAT)

Hypothesis: I predict that _____

Instructions:

1. With the materials given, create a procedure that will separate the mixture.
2. Test your procedure approved test it.
3. The wooden stick to remove the parts that you separated from the bag. Leave the magnet next to the pan.

Analysis:

In detail, explain what happened.

Task 7: Making a Colloid

Materials needed: 1 tablespoon of cornstarch, dropper, water

Instructions:

- Put 1 tablespoon of cornstarch in the clean cup.
- Add 20 drops of water to the cornstarch, and then stir.
- Repeat step 2 until you have added 100 drops.
- Stir the mixture thoroughly. Add 10 drops and stir.
- Repeat step 4 until the cornstarch flows together like a liquid.

Analysis:

- How does your mixture move? What does it feel like?
- What do you think this tells you about colloidal solutions and their physical properties?

Task 8: Evaporation

Materials needed: salt, water, evaporation dish

Instructions:

- Add 1 teaspoon of salt to 3 tablespoons of water to your evaporation dish.
- Stir thoroughly with a wooden spoon
- Bring your mixture to Mrs. Hall

Record the results below:

Analysis:

- What physical change happened to the mixture?
- How could this process be used in real-life?

Task 9: What's the Procedure?

Write instructions for separating a mixture of sand and salt in water.

Task 10: Analysis- After you have finished tasks 1-6 do the chart below:

Mixture	Heterogeneous.	Homogeneous
Fruit Salad		
Milk		
Chicken Soup		
Ranch Dressing		
Green Marker		
Most Solutions		
Trail Mix		
Salt Water		
Paint		
Fruity Pebbles		
Steel		
Coffee		
Oil and Water		

Task 11: Matching

- _____ Mixture
- _____ Heterogeneous
- _____ Homogeneous
- _____ Solution
- _____ Solvent
- _____ Solute
- _____ Compound
- _____ Element
- _____ Filter
- _____ Evaporate
- _____ Sift
 - A type of separation that turns liquid into gas
 - Separates a solid from a liquid
 - Separates solid parts of a mixture by size
 - A mixture in which one substance is dissolved into another
 - Part of a solution that is dissolved
 - Part of a solution that does the dissolving
 - Made up of one type of atom
 - Matter made up of 2 or more substances
 - Mixture that has substances evenly distributed
 - Mixture that has substances that are not evenly distributed
 - 2 or more elements chemically combined

Task 12: True/False & Multi choice

- All of these are made up of 2 or more substances except:
 - Mixture
 - Compound
 - Solution
- 2 types of pure substances are:
 -
 -
- _____ Mixtures are chemically combined
- _____ Air is an example of a mixture

True or False: