

MIXTURE OF SEPARATION

Worksheet

LEARNING OBJECTIVE: STUDENTS WILL BE ABLE TO UNDERSTAND THE PRINCIPLES OF MIXTURE SEPARATION AND IDENTIFY ITS APPLICATIONS IN EVERYDAY LIFE



Worksheet Instructions Steps:

1. **Pray:** Begin your work by praying according to your respective beliefs. Ask for ease and understanding in completing each part of this worksheet.
2. **Read Carefully:** Read each section of this worksheet thoroughly and understand the purpose of each instruction and question provided. If anything is unclear, don't hesitate to ask your teacher for clarification.
3. **Work Diligently:** Answer each question and complete each activity seriously and carefully. Provide complete and clear answers to demonstrate your understanding of the material learned.

Happy learning and good luck!



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Worksheet (With REACT Model Learning)

Relating

In our daily lives, we often encounter substances that are not pure but **are combinations of two or more different substances. These combinations are called mixtures.** The different substances in a mixture are not chemically bonded and can be separated using various physical methods.



Let's explore a fascinating cultural tradition that involves a mixture: the British Afternoon Tea. Watch this short video to learn about the elements of this delightful custom:



Link to a YouTube video about British Afternoon Tea, Let See

<https://youtu.be/G1YNQbIF4IQ?si=A9rDjLlza74MSYnU>



After watching the video, **When you made tea, did you use something to take the tea leaves out of the water? What method mixture of separation?**

Choose the answer

☐

Filtration

☐

Evaporation

☐

destilation

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experiencing

LET DO EXPERIMENT



Tools and Materials



Tea bags or
loose leaf tea



salt



Coffe powder



sugar



water



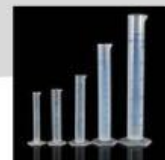
Plastic Cup



spoon



Tissue
napkins or



measuring
cylinder



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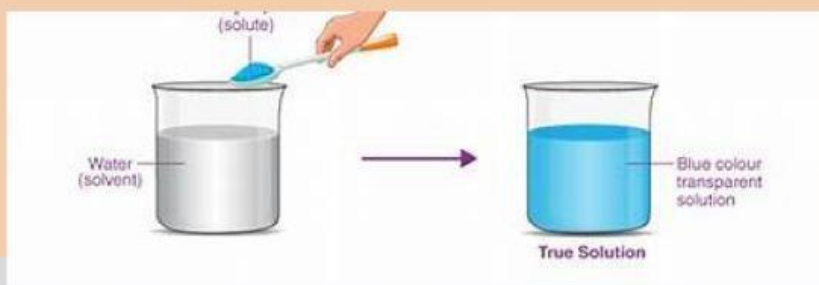
Experiencing



LET DO EXPERIMENT

Step By Step Experiment=

- **Prepare each type of mixture** – tea water, salt water, sugar water, coffee water – in equal amounts using room temperature water (for example, 100 ml).
- **Prepare funnels and place tissues/napkins of different thicknesses inside them.** Ensure the tissues/napkins are securely fitted.
- **Pour each type of mixture into a funnel with a different filter,** then measure the volume of filtrate produced.
- **Observe and record the clarity of the filtrate produced** by each thickness of tissue/napkin. Repeat steps 3 and 4 at least 3 times for each type of mixture and different thickness of tissue/napkin.
- **Compare the volume and clarity of the filtrate produced** by each thickness of tissue/napkin for each type of mixture. Create a graph or table to simplify the analysis.
- **conclusions** about the effectiveness of each thickness of tissue/napkin in separating each type of mixture.



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Applying

Result Of Experiment

Write in below for your information about the experiment

Type of Mixture	Filter Thickness= Trial Number	Notes (Filtration can separate the mixture) cek list
Tea Water	Thin= 1 Medium =2 Thick= 3	
Coffe Water	Thin= 1 Medium =2 Thick= 3	
Salt Water	Thin= 1 Medium =2 Thick= 3	
Sugar water	Thin= 1 Medium =2 Thick= 3	



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Cooperationg and Tranferring

Let's Analyze

Based on the experiment that have been done, are the observation accordance with your initial prediction? why or why not?

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Mentions the characteristic of mixture that you find from experiment

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Is there a relationship between particle size and the principle of separating mixture use filtration?

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Cooperationg and Tranferring

Absolutely! Here's a matching exercise in English about simple mixture separation techniques:

Instructions: Match the mixture on the left with the best separation technique on the right. Write the letter of the correct technique next to the number of the mixture.



Mixtures

Paper chromatography to separate ink pigments



Drying clothes on a clothesline



Making coffee or tea

Separation Techniques

A. Filtrasi

B. Evaporation

C. Kromatografi

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<https://flipbookpdf.net/web/site/31fae94ed36813afaf83cd29ed384eabdfec647f202504.pdf.html>