

# Green Grunge – Worksheet

By Louise Lopes

## Introduction:

When I asked the lab assistant to put away the chemicals, I didn't think they'd put them all into one big container. What a mess! Lucky we have been learning about separation techniques in the classroom.

Remember to use **safety glasses** in the lab at all times!



## Question:

**Aim:** Separate the mixture of pebbles, ground chalk and copper sulphate crystals into three different containers.

**Hypothesis:** Look carefully at the mixture that is in-front of you. What components can you see? What colours can you see?

Predict what each of the three substances (pebbles, ground chalk and copper sulphate crystals) in this mixture will become when water is added:

Sediment: \_\_\_\_\_

Suspended: \_\_\_\_\_

Solution: \_\_\_\_\_

Based on this, predict what techniques will separate each of the substances:

Solid Substance	Separation Technique	Reason
Pebbles		
Ground Chalk		
Copper Sulphate		

**Plan:**

You will be given the following materials so that you can complete this investigation:

- The mixture in a beaker
- Water
- Three empty containers
- Filter paper
- Funnel
- Conical flask
- Bunsen burner
- Tripod and gauze
- Evaporative dish

Write what steps you will take:

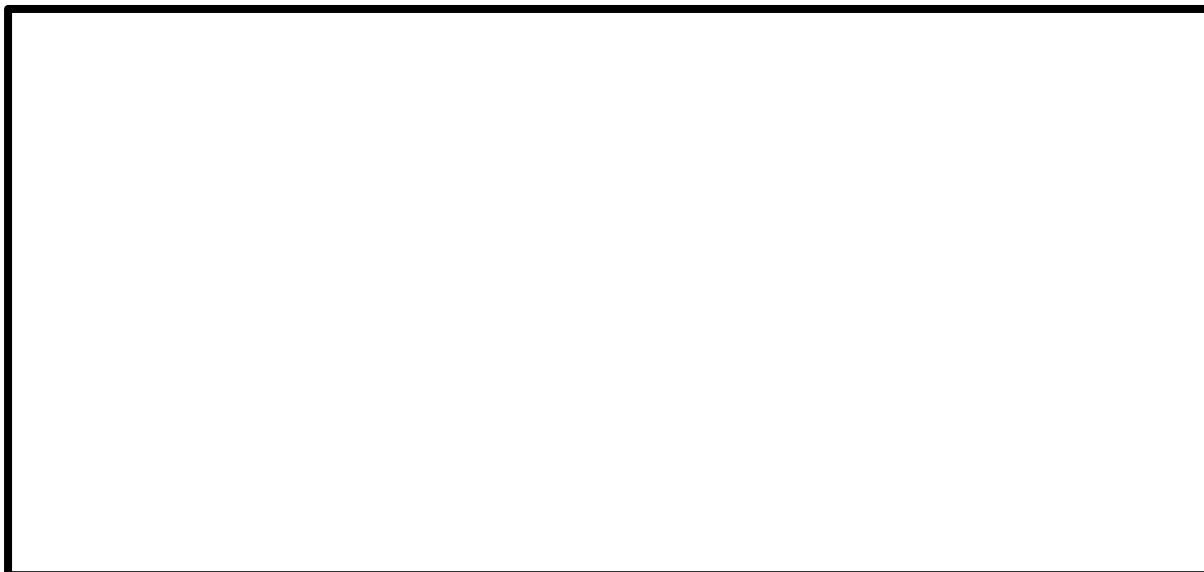
**Conduct:**

For each separation technique, record all of your observations:

<b>Solid Substance</b>	<b>Separation Technique</b>	<b>Observations</b>
Pebbles		
Ground Chalk		
Copper Sulphate		

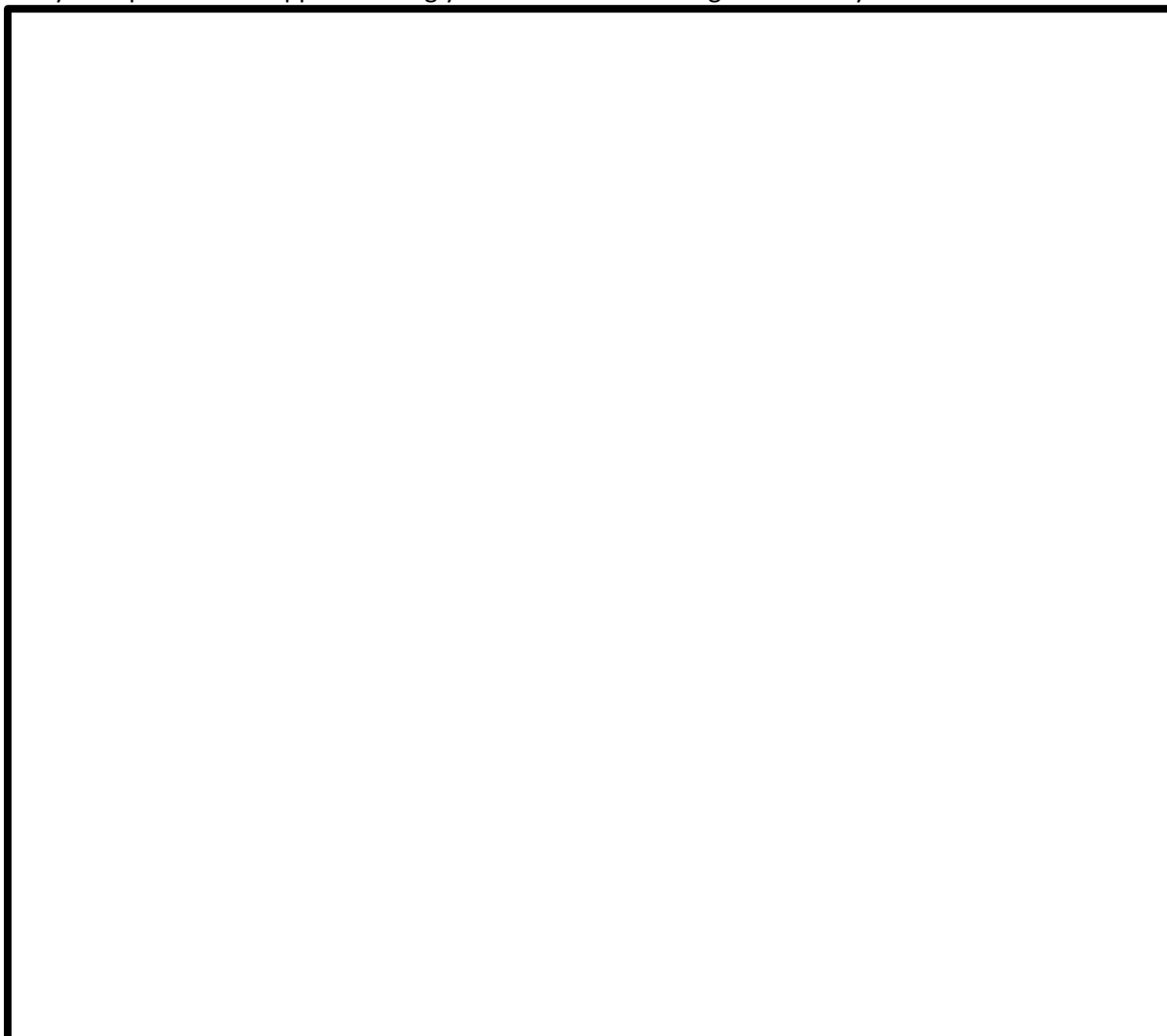
Analyse:

Which separation techniques were/were not successful? How do you know they were/were not successful?



Problem-Solving:

Can you explain what happened using your scientific knowledge? Refer to your observations.



Assess the reliability of your experiment. Where there any sources of error? How would you improve your investigation?

Conclusion:

The aim was/was not achieved because \_\_\_\_\_.

The expected outcome was \_\_\_\_\_,  
and the actual results showed \_\_\_\_\_.

Therefore, the experiment proved \_\_\_\_\_.

Image Reference:

Clker-Free-Vector-Images, <https://pixabay.com/en/beaker-laboratory-glassware-30249/>  
CC0 Creative Commons - <https://pixabay.com/en/service/terms/#usage>