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Name:

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## Experiment 3: Hydrated Salt Design Proposal

LibreTexts page: [3: Hydrated Salt](#)

<https://chem.libretexts.org/link?212568>

This worksheet is to be used for the [Experiment 3: Hydrated Salt](#) in the class LibreText. Each group will create a proposal to determine the water of hydration for the hydrated salt (Epsom Salt).

**At 11:10 AM** the breakout groups will adjourn and each group will present their proposal to the class.

After the proposals have been presented, the breakout groups will resume and complete the Safety Worksheet.

### Supplies

- Balance (to centigram)
- Epsom Salt
- Aluminum Foil
- Oven capable of reaching 400F
- Measuring spoon.

Experimental Design Parameters you need to account for in your proposal

- Humidity, water adsorbed to surface materials
- Spattering of sample upon heating as water escapes from hydrated salt
- Insufficient heating to cause all water to escape (how do you determine the process is complete?)
- Safety considerations

Role	Name
Manager	
Theoretician	
Engineer	
Analyst	
Spokesperson	

### 1. Introduction & Overview

- Team works, Theoretician is the scribe, but everyone should contribute
- Write 2-3 sentences for this section and describe what a hydrated salt is.

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### 2. Experimental Design

- Team works, Engineer is the scribe, but everyone can contribute
- Show how you are going to obtain your data
- Include a data table that describes all the measurements you will need to make.
- Show how you are going to minimize the potential errors.

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### 3. Error analysis of the design proposal

- Team works, Analyst is the scribe
- Explain how each of the errors that you discussed in part 2 would affect your results and conclusions. This must state how the error will cause you to overestimate or underestimate the experimentally determined water of hydration.

### 4. Safety evaluation

- Team works, Manager is the scribe
- Define protocols that ensure that this experiment will be performed in a safe and prudent manner.

### 5. Presentation

- Team works, Spokesperson is the scribe
- Prepare a brief 3 minute presentation of your proposal.