Sludge Rough Draft Packet (Your Title Here)

Name:

Period:

Block:

H3S1:	

Sludge Guide - Rough Draft Part 1: Framing the Investigation

Problem Statement: (What are you trying to solve or answer?) One sentence to one paragraph.

Background Information: Definitions, Observations and Concepts necessary for this investigation. Describe how you would know the difference between alcohol and water, or between metal and nonmetal. In this section, go through the 4 types of materials you have in your sludge (liquids, solids, insoluble powder and salt) and describe how you could separate and identify each of them. This should be a least 1-3 pages, single-spaced for a well done section.

Hypothesis: (If, Then, and Because)

H3S2: _	

Part 2: Designing the Investigation

For each lab you will conduct to determine the identities of substances in your sludge you must write lab procedures. Use the guideline below to assist in this process. If you need additional pages you may create them yourself ask for extra copies.

Lab Title:	
Diagram of lab equipment and set-up	Lab Procedures:
Safety:	Material List:
Lab Title:	
Diagram	Lab Procedures:
Safety:	Material List:
Lab Title:	
Diagram	Lab Procedures:

Safety:	Material List:
Lab Title:	Lab Procedures:
Safety:	Material List:
Lab Title:	Lab Procedures:
Safety:	Material List:
Lab Title: Diagram	Lab Procedures
Safety:	Material List:

Lab Title:	
Diagram	Lab Procedures:
Safety:	Material List:
Lab Title: Diagram	Lab Procedures:
Safety:	Material List:

H3P2: _	

Part 3: Collecting and Presenting Data Additional Time/Temperature Data available, just ask. Boiling Point Temperatures

Time	Temperature	Time	Temperature	Time	Temperature	Time	Temperature
.5		5.5		10.5		15.5	
1		6		11		16	
1.5		6.5		11.5		16.5	
2		7		12		17	
2.5		7.5		12.5		17.5	
3		8		13		18	
3.5		8.5		13.5		18.5	
4		9		14		19	
4.5		9.5		14.5		19.5	
5		10		15		20	

Data Chart for Liquids

Data Chart for Liquid	Original Sludge	Liquid #1	Liquid #2
	Original Studge	Liquiu #1	Elquid #2

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Data	CHAIL	UI I	ounu	3

	Solid #1	Solid #2	Solid #3	Solid #4
**1		1-11-		

^{**}Insert a page, at the back of the lab report, with samples of each of your solids or staple a ziplock bag containing your samples.

Solute Data Table

Salt Color	Flame Color	Identity (Name)

Insoluble Data Table

Powder Color	Reacts w/ Acid Test	Identity (Name)

H3S2:	

Part 4: Analyzing and Interpreting Results

Insert Graph (ask for graph paper if needed or make your own)

Identity of Sludge

Components	Identity (Name)	
of Sludge		
Solid #1		
Solid #2		
Solid #3		
Solid #4		
Solute		
Insoluble		
powder		
Liquid #1		
Liquid #2		
Identity of Lie	quid #1: Identity of Liquid #2	
Chemical For	mula: Chemical Formula:	
Type of Bond	: Type of Bond:	
Molecular Dia	ngram: Molecular Diagram:	

Exceeds: Chemical formula, bond type and molecular diagram for insoluble powder, salt, and the solids. (Need at least $2/3^{rd}$ correct to exceeds)

Conclusion: (For a good conclusion the following 6 parts should be included).

- 1- Yes/No the data you collected supports/does not support your hypothesis.
- 2- I thought I hadin my sludge.(1 paragraph)
- 3- I have _____ in my sludge. I know I have ____ in my sludge because (use data, numbers, and observations to fully prove you have this item). (8 paragraphs)

 *** Repeat #3 seven more times for each of the 8 items in your sludge***
- 4- The errors or possible errors in my labs occurred ... (paragraph or 2)...
- 5- I could have eliminated the errors if I would have....(paragraph or 2)
- 6- To improve the sludge labs and process I would....(paragraph)