

Day 1

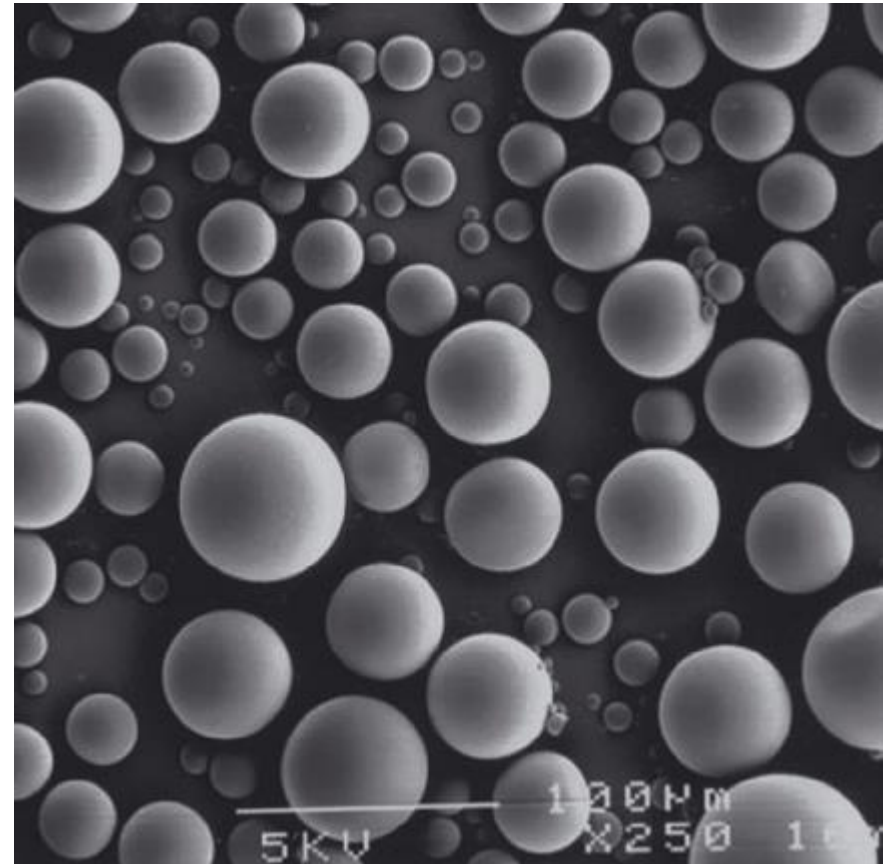
Separation Lab

Separation Lab Agenda

	<input checked="" type="checkbox"/> In class	At home
Day 1	Matter & Changes	<input type="checkbox"/> prelab
Day 2	Separation Lab (planning)	<input checked="" type="checkbox"/> DUE: prelab
Day 3	Separation Lab (starting)	<input checked="" type="checkbox"/> DUE: experiment plan
Day 4	Separation Lab (finishing)	<input type="checkbox"/> plan poster
Day 5	Poster Work Day	<input checked="" type="checkbox"/> DUE EOC: poster
Day 6 (opt)	Poster Work Day	

Matter & Particles

- ♦ Chemistry is the study of matter
- ♦ matter = particles
- ♦ observation
 - 5 senses
 - measurement
- ♦ inference
 - explanation of observations
 - interpretation of data
- ♦ explanations can only use vocabulary from class



Thinking about Matter

Properties

- ♦ physical
- ♦ chemical

Changes

- ♦ physical
- ♦ chemical

Think about particles

- ♦ Are particles changed in the process?



Bark and Rock Separation

Log yard material management









Bark, rock and dirt to be separated



Separation Lab

In journal:

- ◆ New page
- ◆ Lab title at top
- ◆ Partner name: (*leave blank*)



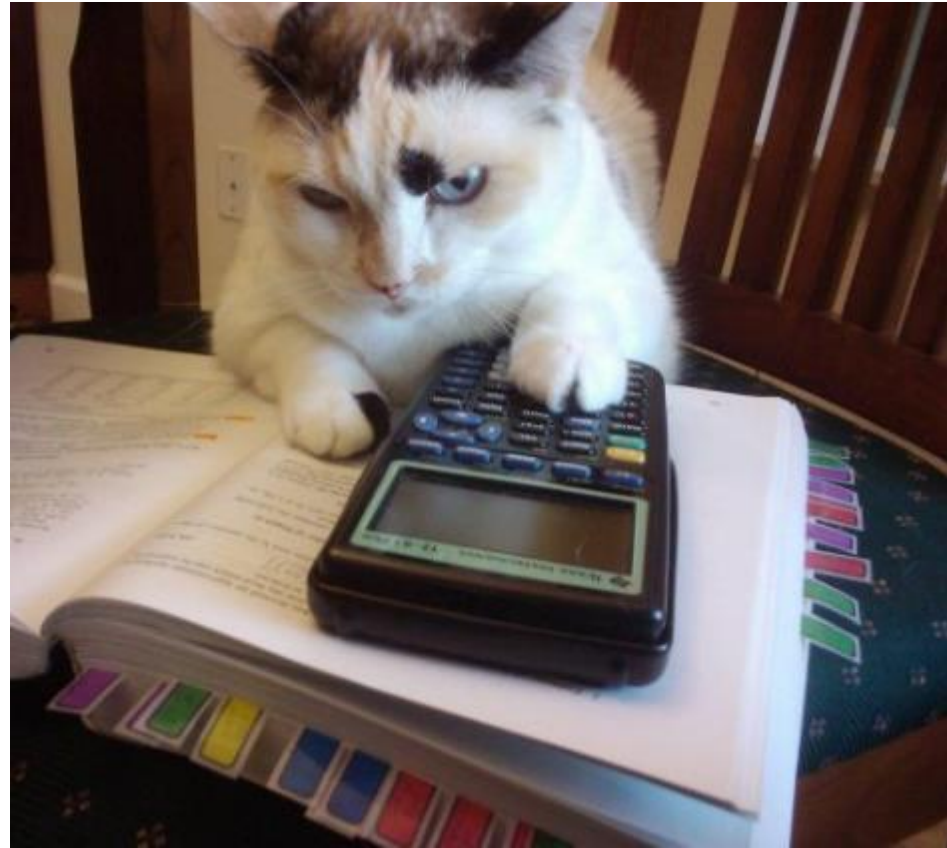
Separation Lab Prelab

- ◆ You will be given a heterogeneous mixture
 - salt
 - sand
 - poppy seeds (i.e. sawdust)
 - iron filings
- ◆ Describe at least one physical or chemical property of each substance
- ◆ Describe how you can use that property to separate the substance from the rest of the mixture
- ◆ At least one page blank for data & notes



Work Time

Work on prelab



Day 2

Separation Lab

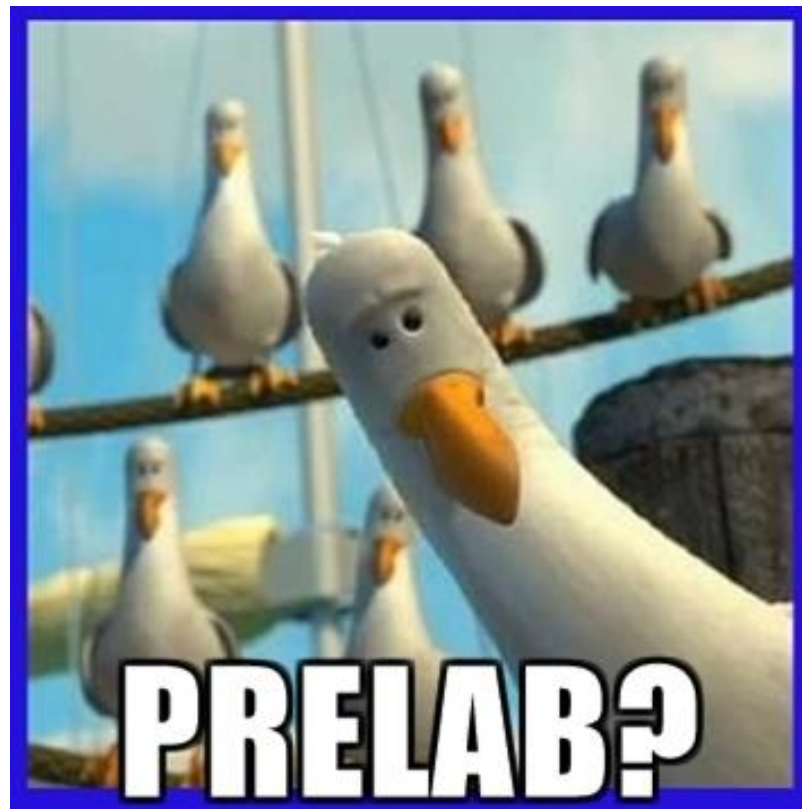
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Separation Lab Prelab

Open your journal to
your prelab.

Get your prelab
stamped!



Separation Lab

With partner:

- ♦ Get lab sheet
- ♦ Take journal and lab sheet
- ♦ Sit together at station in chem lab



Separation Lab

With partner:

- ◆ Get planning sheet
- ◆ Create experiment plan
- ◆ Get stamp!



Day 3

Separation Lab

Separation Lab Agenda

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Day 6 (opt)	Poster Work Day	

Separation Lab

With partner:

- ◆ Substance sample is at bench
- ◆ Label substance container
- ◆ Get only equipment needed for step 1
- ◆ Mass initial mixture
- ◆ Separate substances
- ◆ Take notes on procedure



Separation Lab

Clean-up

- ◆ Return all equipment, except:
 - petri dish
 - filter paper
 - small beaker or flask
- ◆ On big tray:
 - Label scratch paper
 - Put experiment on scratch paper



Day 4

Separation Lab

Separation Lab Agenda

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Day 6 (opt)	Poster Work Day	

Separation Lab

Today:

- ◆ **Hotplates**
 - Only for evaporating water
 - One partner must watch at all times
- ◆ **Finish separating**
- ◆ **Mass final samples**
 - Save packets for Monday
- ◆ **Clean up**



Separation Lab Poster

Lab Reflection

- ◆ One team = one poster
- ◆ Procedure
 - Paragraph, not steps
 - Evaluation
 - Improvement
- ◆ Data
 - Mass data
 - Financial calculations
 - Four packets
- ◆ Design
 - Creative title
 - Colorful
 - Drawings



Day 5

Separation Lab

Separation Lab Agenda

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Day 6 (opt)	Poster Work Day	

Sawmill Separation

- ◆ Separation is a two-phase process.
- ◆ First the material is screened.
- ◆ Then the material is separated in a wash.



**Materials after
process is bark,
rock, and fines.**



Separation Lab

Poster

◆ Procedure

- for each substance
- paragraph, not steps
- what worked well
- what can be improved

◆ Data

- masses
- profit
- packets

◆ Design

- creative title
- colorful
- drawings

