Material Experimentation - Lab books -

@zoepowellbest

October 2021

Key notes

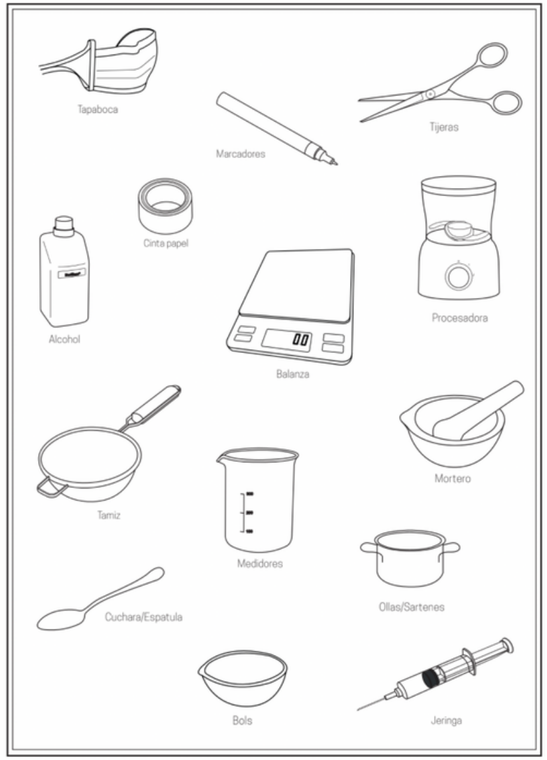
Here are some key notes to keep in your Lab book! And what to do before you start recording notes...

- Date of the experiment
  - This is really good if you are working over a period of time
- Title of the project /Experiment name
- What are you experimenting with or on?
  - Is it clay sculpture? New woven textile swatch? Agar biopolymer? Prototype of a product?
- Start time of the experiment, e.g.:
  - for textiles development this might be when you began weaving
  - for biomaterial research it might be when are you beginning to mix two ingredients or heat up the mixture
  - for a new product or artwork, it could be when you begin developing it
  - You can also add in new dates and times later on if you pick up or change any
- End time of the experiment
  - Very often it's worth adding in the end date of your experiment, especially if this is over more than one day e.g.: if you're leaving something to dry overnight

Experiment details

Tools, equipment, machines or apparatus

- What tools will you be using? Is there any special equipment? It's always a good idea to get everything you need or even might need before you begin.
- If you like drawing, you might want to sketch your tool and make notes about what they do, especially of it's a new tool



Your set-up and work space

Set up: your space and making it :

- What kind of space is it set up in (kitchen, studio, office?)
- You could also sketch your set up
- Or take photos

Inspiration and Pre-search

Is there a particular goal or aim of your experiment? what is it?

Something that might be different this time? or there is a change or variation in an experiment you've tried before?

What is your inspiration for this experiment?

Is there an online resource? a video? a book? a research paper? an article?

Where did this decision to do the experiment come from?

Remember:
these plans and notes about your experiment
...are for you!

They are so you can remember what you did,
so think of it as a diary
that will help you remember what happened
for when you do look back at it

Lab books for the creative

If you're a creative person, when we learn to use our sketchbooks, we explore a topic through it's pages by drawing in different mediums, drawing quick sketches, making longer detailed drawings, adding in images, visual references and even pieces of the actual materials that have inspired us... We make our own book of reference and details about a project that we connect to

A lab book is very similar, but the information we are recording is a little more prepared because it is more planned. It could be seen as the equivalent to the planning of a product design prototype, the mock up of a garment, a sampling swatches of a textile or the half-scale version of a final sculpture.

The details in a lab book help us to record information before the experiment, during the experiment (so what we see happening throughout i.e. our observations) and the results of the experiment (this would be when we review and analyse the experiment)

We can then make an analysis comparing what we planned to happen versus what actually happened.

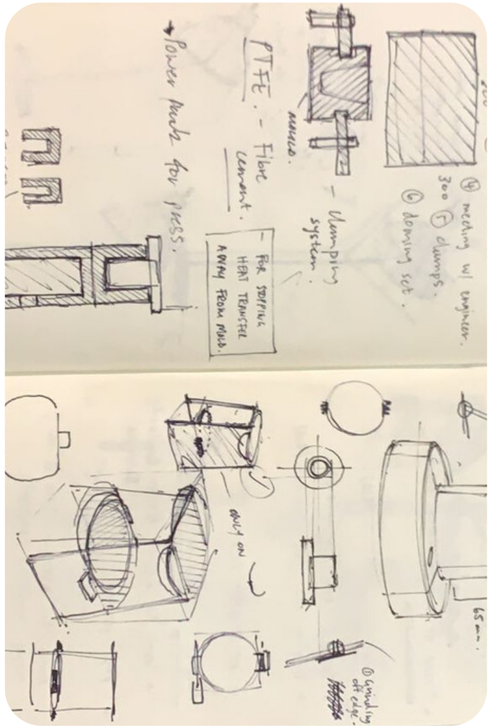
@zoepowellbest

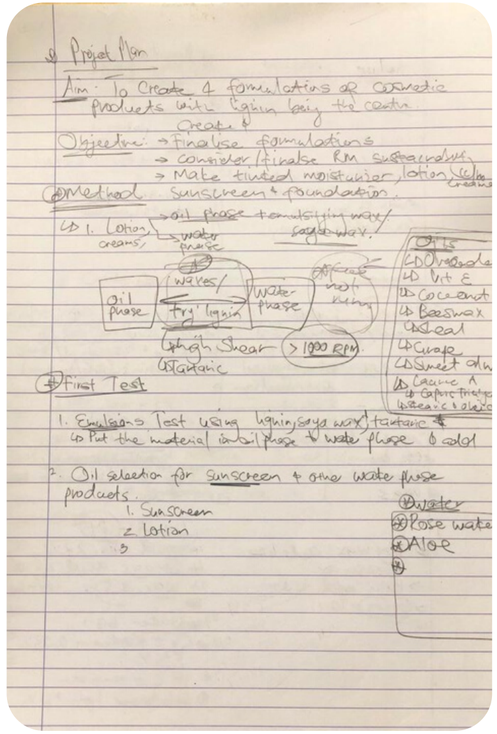
Type of Lab books

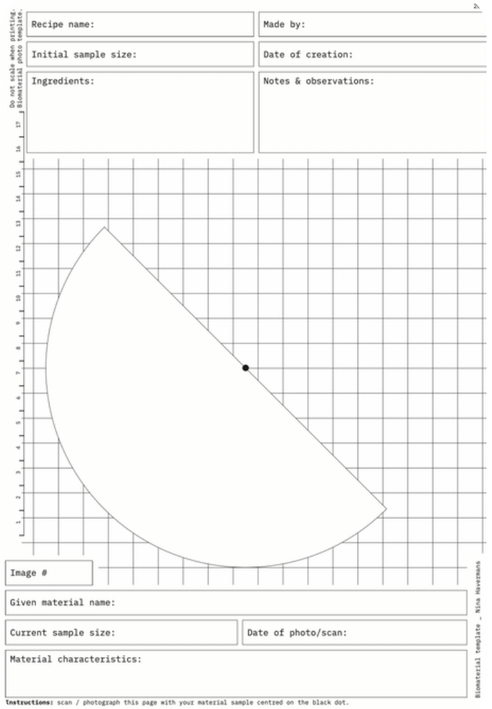
Typically the notes you make might be written down using words in the format of a notebook.

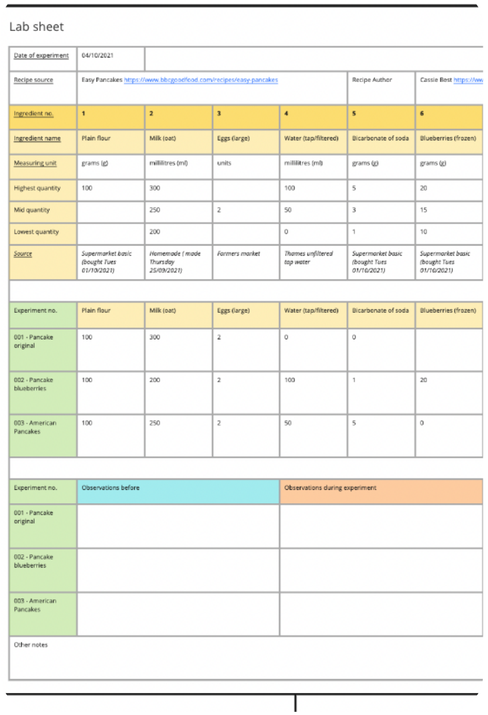
You could also make sketches and quick doodles.....

you can also go digital and record details of your experiments in a number of ways online...









Lab sheet

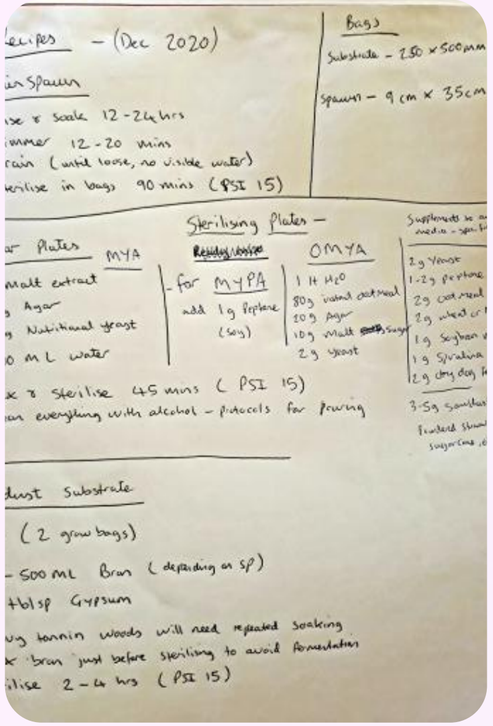
Date of experiment	04/10/2021					
Recipe source	Easy Pancakes https://www.bbcgoodfood.com/recipes/easy-pancakes				Recipe Author	Cassie Best https://ww
Ingredient no.	1	2	3	4	5	6
Ingredient name	Plain flour	Milk (oat)	Eggs (large)	Water (tap/filtered)	Bicarbonate of soda	Blueberries (frozen)
Measuring unit	grams (g)	millilitres (ml)	units	millilitres (ml)	grams (g)	grams (g)
Highest quantity	100	300		100	5	20
Mid quantity		250	2	50	3	15
Lowest quantity		200		0	1	10
Source	*Supermarket basic (bought Tues 01/10/2021)*	*Homemade / made thursday 25/09/2021)*	*Farmers market*	*Thames unfiltered tap water*	*Supermarket basic (bought Tues 01/10/2021)*	*Supermarket basic (bought Tues 01/10/2021)*

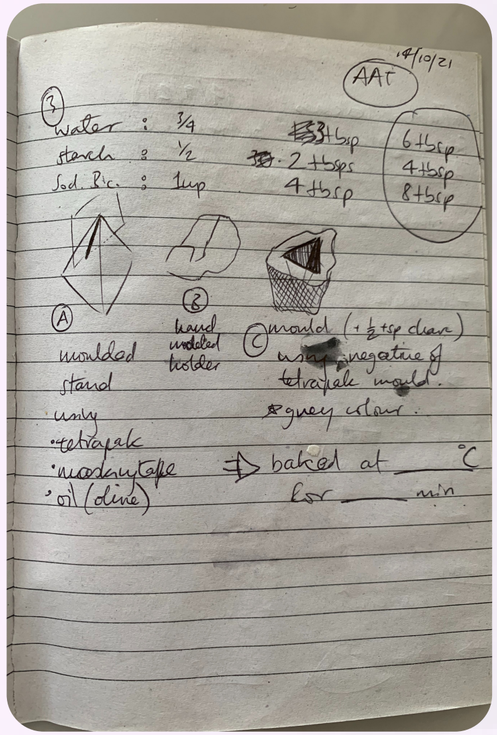
Experiment no.	Plain flour	Milk (oat)	Eggs (large)	Water (tap/filtered)	Bicarbonate of soda	Blueberries (frozen)
001 - Pancake original	100	300	2	0	0	
002 - Pancake blueberries	100	200	2	100	1	20
003 - American Pancakes	100	250	2	50	5	0

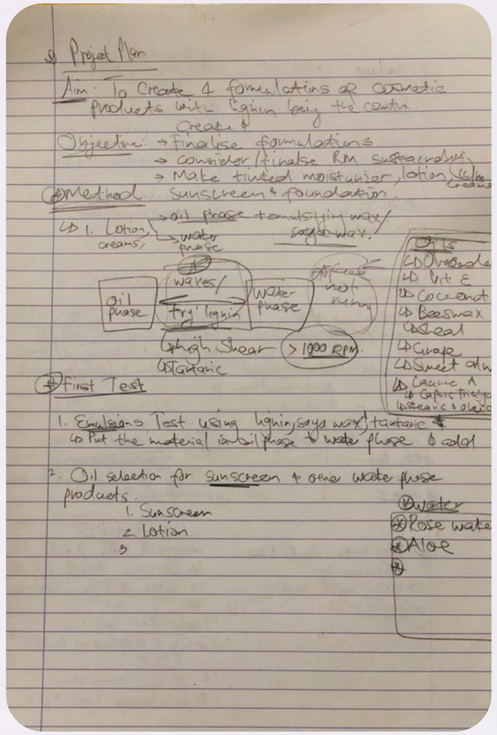
Experiment no.	Observations before	Observations during experiment
001 - Pancake original		
002 - Pancake blueberries		
003 - American Pancakes		
Other notes		

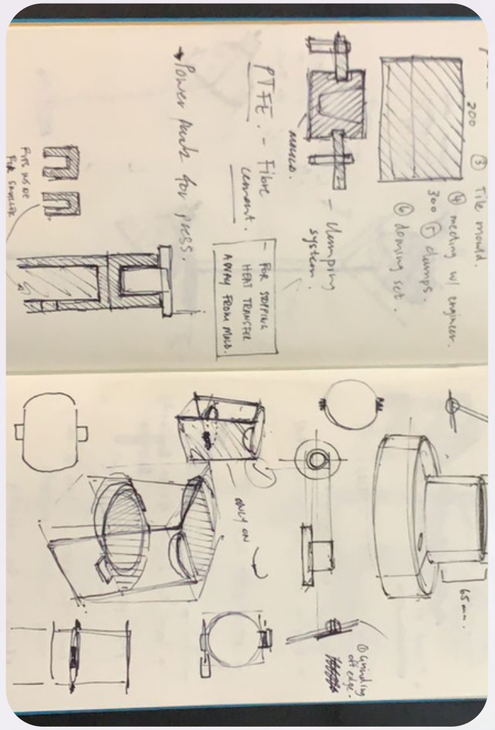
@zoepowellbest

Lab book - hand written note books





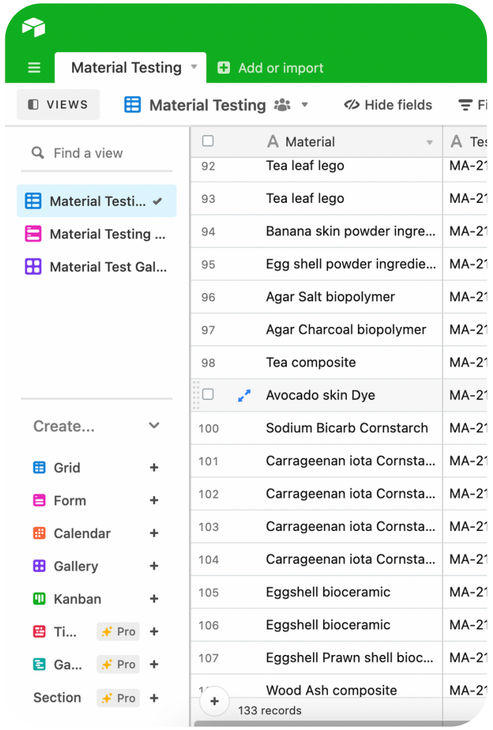


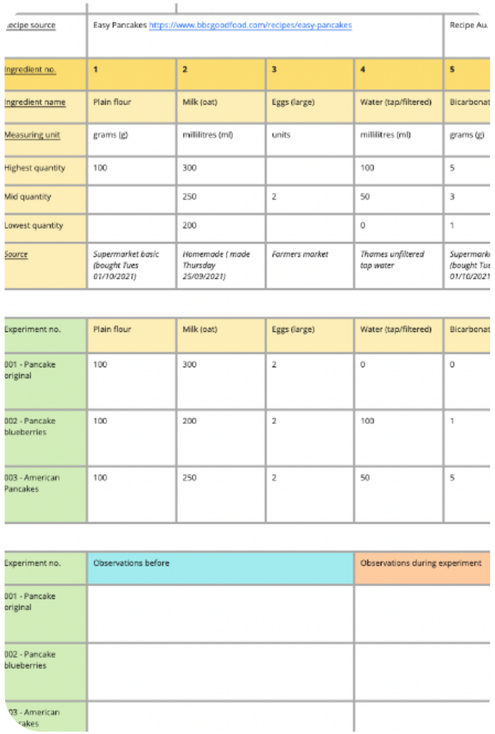


@zoepowellbest

October 2021

Lab book - digital lab books

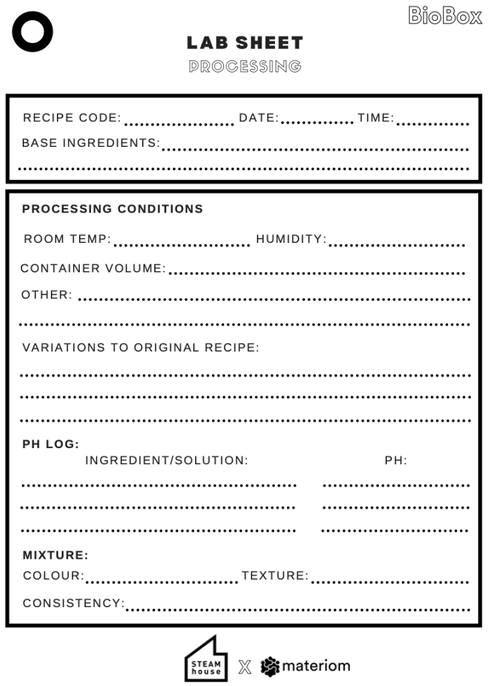


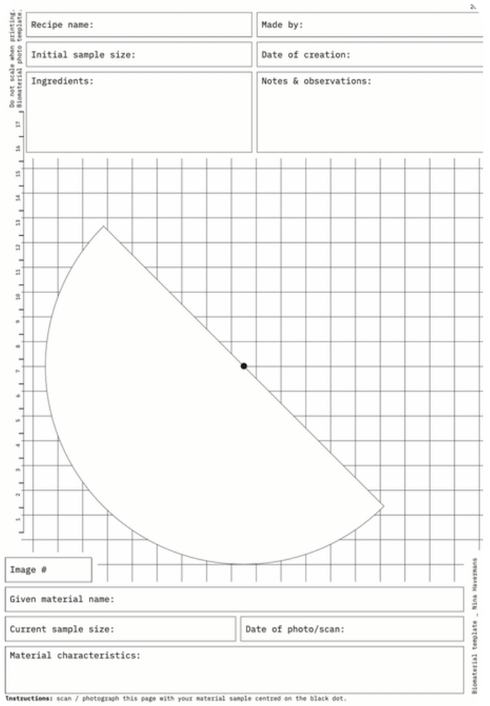


ecipe source	Easy Pancakes https://www.bbcgoodfood.com/recipes/easy-pancakes				Recipe Au
Ingredient no.	1	2	3	4	5
Ingredient name	Plain flour	Milk (oat)	Eggs (large)	Water (tap/filtered)	Bicarbonat
Measuring unit	grams (g)	millilitres (ml)	units	millilitres (ml)	grams (g)
Highest quantity	100	300		100	5
Mid quantity		250	2	50	3
Lowest quantity		200		0	1
Source	Supermarket basic (bought Tues 01/10/2021)	Homemade (made Thursday 25/09/2021)	Farmers market	Thames unfiltered tap water	Supermark (bought Tu 01/10/2021

Experiment no.	Plain flour	Milk (oat)	Eggs (large)	Water (tap/filtered)	Bicarbonat
001 - Pancake original	100	300	2	0	0
002 - Pancake blueberries	100	200	2	100	1
003 - American Pancakes	100	250	2	50	5

Experiment no.	Observations before	Observations during experiment
001 - Pancake original		
002 - Pancake blueberries		
003 - American Pancakes		





@zoepowellbest

Digital Lab books

Make a digital spreadsheet

- This is great because it can give yourself a structured template into which you can fill out the same details each time
- Each spreadsheet tab can be different experiment date and you can also invite others to collaborate or comment
- To develop your own, you could first try drawing a table in your notebook, and then over the first few experiments, you'd have an idea of what other details you might like to add to a digital version
- You could also print this out and fill it in manually. This works really well for workshops and if you want a physical sheet to combine with your more creative sketchbook

@zoepowellbest

Digital Lab books

Use an online software system

- If you're working with other people remotely, one of the values of utilising a software is that it may already have some existing table templates
- You can then each add in your own experiments, your own observations and analysis, then as a group compare the results, even from afar.
- Many online softwares are free e.g.: Google sheets and docs are great because they are widely used and even by simply assigning a font colour to each different person allows you to see who has made contributions and any changes)
- Others will have different layouts and features e.g.: AirTable, Asana, Zoho, Padlet, Notion, Trello
- If you want something which combines both visual and table aspects, you could even combine Google slides and spreadsheet, or use other more visual software like XXXXXX

@zoepowellbest

Analysing or reviewing (or critiquing!)

When we conduct our first few experiments, they don't often turn out as planned... and that's one of the reasons we call it an experiment because we are experimenting/exploring and innovating.

This gives us the opportunity to ask ourselves what went wrong?
What went right?
What was different from what was planned?

And mostly importantly,
how are you going to change or adapt your experiment
to achieve the outcome you are looking for?

@zoepowellbest