NEA 1

FUNCTIONAL PROPERTIES

Thinking about each ingredient ,
What does the ingredient actually do?

CHEMICAL PROPERTIES

How does it do it?
What makes it happen?

protein denaturation
chemical bonds
amino acids
coagulation
foam formation
carbohydrate
caramelisation
dextrinisation
gelatinisation
emulsification
aeration
plasticity
shortening
enzymic browning
oxidation
chemical
biiological
mechanical
gluten
gliadin
glutenin
trigylyceride
saturated
unsaturated
hydrogren
carbon dioxide
monosaccharide
dissacharide
polysaccharide

RESEARCH

In this	useful detailed thorough comprehensive	study of x survey of x analysis of x examination of x investigation into	it showed that... it concluded that.. it demonstrated that... it explained that...

Introducing evidence

For example
Such as
For instance
Because
Meanwhile
In the case of

This can be backed up
The evidence to support this
As shown by
Illustrated by

Introducing a new topic

Regarding x...
As regards X.....
In terms of X...
In the case of X...

With regard to X ...
With respect to X...
On the question of X...
As far as X is concerned ...

Reintroducing a topic

As discussed above..
As explained earlier..
As previously stated..
As indicated previously..
As was mentioned in ..
Returning to the subject of X..
As explained in the introduction, it is clear that..
As was pointed out in the introduction to this investigation..

Moving from one section to the next

Turning now to..
I will now turn to...
I will now consider...
Moving on to consider..
Turning now to the evidence on..
Before proceeding to examine X it is important to..
Having defined what is meant by X, I will now move on to discuss..
So far in this investigation I have focused on X. The following section will discuss..
This research has demonstrated that... it is now necessary to explain...

INVESTIGATION

Hypothesis

Write a prediction about what you think will happen.

Equipment & Method

List all the equipment, resources and ingredients needed for the experiment.

Variables

Independent variables – the thing that you will change
Dependent variable – the result that you will measure
Control variable – what will not change

Valid test

- Weigh ingredients accurately with digital scales.
- Measure ingredients accurately in mm
- Use template, cutters to ensure a consistent size
- Cook at the same temperature.
- Use the same space in the oven.
- Use the same size containers.
- Cook for the same time
- Cut in the same direction (grain)
- Use random codes (XYZ) to avoid bias
- Serve samples at same temperature
- Make sure testers know how to fill in charts.

Results

Show your results with photos, graphs, tables and charts.

Make sure your name and candidate number is included in every photo

ANALYSIS

The analysis is based on what the results of the investigation actually show.

What is striking What stands out What is interesting What can be clearly seen	in this	table chart figure photo	Is the high rate of.. Is the variability of.. Is the dominance of... Is the decrease of ... Is the general pattern of Is the difference between Is the growth of...

The graph shows that there has been a Figure 2 reveals that there has been a	light steep sharp steady gradual marked	fall rise drop decline increase decrease	in the ...

I	found observed	major notable distinct only slight significant considerable	differences between X and Y

X is different from Y in a number of respects.
X differs from Y in a number of important ways.
There are a number of important differences between X and Y.
Areas where significant differences have been found include X and Y.

CONCLUSION

The conclusion will relate back to your hypothesis.
Discuss the results you obtained in relation to your hypothesis.
Did you prove your hypothesis correct?
If you did, why are you so sure?
You need to use your scientific knowledge to explain why you think the hypothesis is supported by your results.

It may be It is likely It could be It is possible It is probably It is almost certain	the increase carbon dioxide..	is a result of the fermentation of the yeast.

A likely explanation is that A probably explanation is that A possible explanation is that	these air bubbles	are a result of the chemical raising agent used.

This inconsistency may be due to..
This discrepancy could be attributed to...
A possible explanation for this might be that...
A rather contradictory result may be due to ...
The observed increase in X could be attributed to ..
The possible interference of X cannot be ruled out.
There are several possible explanations for this result.
There are two likely causes for the difference between...
A possible explanation for these results may be the lack of adequate..
Since this difference has not been found elsewhere it is probably not due to..

These.....	may be could be might be are almost certainly	due to....

EVALUATION part 1

Evaluate the methods used.
Look at the experiment and think about how the techniques used could be improved.
Has the experiment been performed well?
Evaluate the performance – if the investigation was repeated – what should be changed?
What new or different equipment could be used?
Or alternatively explain why the investigation method could not be improved.
Evaluate the reliability of the results.
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The main weakness with this method of investigation
The key problem with this explanation is that...
However, this theory does not fully explain why...
One question that needs to be asked however is...
However this analysis does not take account of..
One of the limitations of this method is that it does not show..
One major drawback for this approach to the investigation is that..
Perhaps the most serious disadvantages of this method is that..
Another problem with this method is that it fails to...

The study would have been more interesting if it had included..
The investigation would have been more useful if I had focused on..
The research would have been more relevant if I had
The sensory analysis would have been more useful if it had asked testers about
The research would have been more relevant if X had been explored
A more comprehensive study would include...
A better study would examine...

My investigation My findings My conclusions	would have been might have been	more far more much more	useful original relevant convincing interesting persuasive	If I had	used adopted assessed included addressed considered

EVALUATION part 2

Evaluation also includes reflective thinking about what you have learnt and how this would inform you in the future

Additionally Furthermore Most importantly	I have learnt that....

Previously At the same time At first Initially Subsequently later	I	thought (did not think) felt (did not feel) knew (did not know) notice (did not notice questioned (did not question) realised (did not realise)

Having	read experienced applied analysed learned	I now	feel think realise wonder question know

I have	significantly slightly	developed improved	my skills in... my understanding of... my knowledge of... my ability to..

Alternatively Equally	this	might be is perhaps could be is probably	because of ... due to ... explained by ... related to..

For me , the (most)	significant meaningful important relevant useful	aspect element experience issue Idea learning	was were arose from... happened when... resulted from...

This knowledge This understanding This skills	is could be will be	essential important useful	to me as a learner because... to me as a practitioner because...

SENSORY TESTING

NEA 1 + NEA 2

Discriminatory tests

Used to find out if people can tell the difference between similar samples of food.

Triangle test

People are given three samples of a food product to try. Two of the samples are identical, the third has something changed (eg lower sugar or salt). The idea is to see if they can discriminate between the samples.

A not A test

Opposite to the triangle test. People are given a sample to try (Sample A). They are then given two other samples to try, one of which is identical to Sample A and the other has had something changed. They have to identify which of the two samples is the same as sample A

Preference tests

Used to find out which food product people like the best.

Paired preference test

Tester is given two samples of a food product and asked ' which sample do you prefer?'

Hedonic rating test

Used to find out how much a tester likes of dislikes a product. Words, numbers of smiley faces can be used for the scale of preference.



Grading tests

Ranking test

Used to measure the strength of a specific property in a number of samples.

Tester will **rank the samples in order** (eg sweetness). The sample that is the strongest (sweetest)will be ranked first.

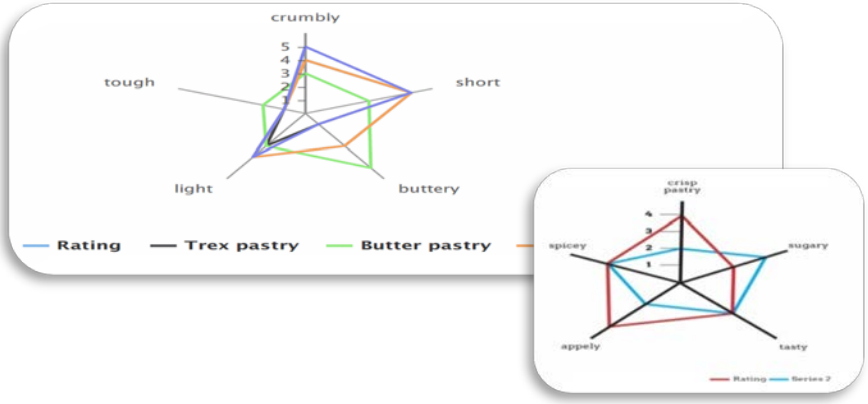
Rating test

Testers try a food sample and asked to rate it for a particular characteristic (eg taste, texture, appearance, aroma) **on a scale.** The scale could be a 5 point scale, or could use smiley faces depending on the age or ability of the tasters. Just make sure it is clear and obvious to tasters what the scale is.

Profiling

Used to obtain a detailed description of the appearance, taste and texture of a food product.

The results can be plotted on a star diagram to give a visual profile called a sensory profile



SENSORY TESTING



NEA 1 + NEA 2

TASTE

Acidic
Aftertaste
Bland
Bitter
Burnt
Buttery
Cheesy
Citrus
Cool
Creamy
Dry
Fatty
Flavoursome
Fresh
Fruity
Heavy
Hot
Light
Meaty
Mediocre
Metallic
Mild
Minty
Nutritious
Nutty
Plain
Rancid- unpleasant
Rich
Salty
Savoury
Sharp
Sickly
Sour
Spicy
Stale- not new/fresh
Strong
Sweet
Tainted- to spoil something
Tangy
Tart
Tasteless
Tasty
Undercooked
Warm
Weak
Zesty

SMELL

Acrid- pungent/bitter
Aromatic
Bitter
Bland
Burnt
Cheesy
Citrus
Fatty
Floral
Fragrant
Fresh
Lemony
Mild
Minty
Musty
Perfumed
Piquant- sharp taste
Pungent
Rancid- unpleasant
Rotten
Savoury
Scented
Sickly
Spicy
Strong
Sweet
Tainted
Tart
Weak
Zesty

SOUND

Crackle
Crisp
Crunch
Fizz
Pop
Snap

TEXTURE

Bouncy
Brittle
Bubbly
Chewy
Chunky
Clammy- sticky + wet
Close consistency
Coarse
Crispy
Crumbly
Crunchy
Crystalline
Dry
Elastic
Effervescent- bubbly
Fibrous
Firm
Fizzy
flaky
Fluffy
Foamy
Gooey
Greasy
Gritty
Hard
Hot
Juicy
Light
Lumpy
Moist
Mushy
Open texture
Pulpy
Powdery
Rubbery
Runny
Sandy
Short
slimy
Smooth
Soft
Soggy
Spongy
Springy
Sticky
Stiff
Stodgy
Stretchy
Stringy
Syrupy
Tacky- sticky
Tender- soft
Thick
Thin
Tough
Treacly
Watery
Warm
Waxy

SIGHT

Appetising
Bright
Browned
Bubbly
Cheap
Chunky
Clear
Cloudy
Coarse- rough
Colourful
Colourless
Crisp
Crumbly
Crystalline
Delicate
Dry
Dull
Expensive
Fancy
Fattening
Fine - dining
Firm
Flaky
Flat
Fluffy
Foamy
Fragile
Fresh
Glossy
Golden
Greasy
Grainy
Hard
Healthy
Heavy
Hot
Limp
Lumpy
Mediocre
Moist
Mottled
Mottled
Mushy
Nutritious
Opaque-
Plain
Powdery
Pretty
Risen
Runny
Shiny
Sloppy
Smooth
Soggy
Solid
Sticky
Stringy
Syrupy
Tasty
Translucent- see through
Unhealthy