TGAU
GCSE

wjec
cbac

Yn arbennig i Gymru.
Yn barod i'r byd.

Made for Wales.
Ready for the world.

TGAU
GCSE

GCSE FOOD & NUTRITION
WORK SMARTER NOT HARDER – UNIT 2

TGAU
GCSE

UNIT 2 – NEA

The Food Investigation Assessment.

How to “work smarter and not harder”

This is the SAM

Brief A

“Fruit is often preserved and added to a recipe to enhance the characteristics of the dish.”
Investigate the working characteristics, function and chemical properties of using different types of preserved fruit when making a batch of cupcakes.

This assignment must be supported by investigational work – refer to guidance given below.

Brief B

"Meat can be tenderised before cooking.”
Investigate the working characteristics, function and chemical properties of using different methods to tenderise meat.

This assignment must be supported by investigational work – refer to guidance given below.

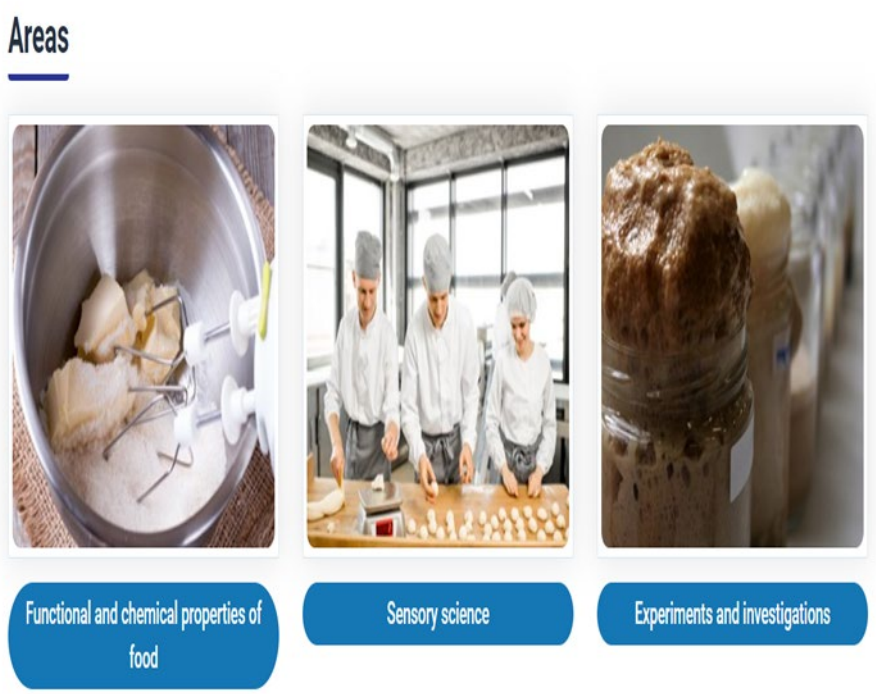
You are required to conduct a food investigation.

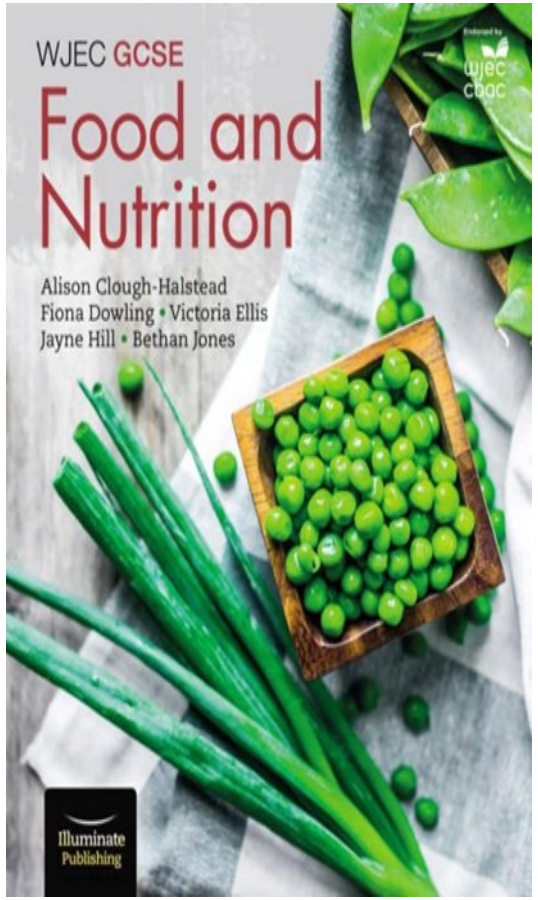
TGAU
GCSE

WHERE TO START?

There are mini food science experiments in the Illuminate text books, and lots of resources on the Food a fact of life website. There are exemplars from the old specification still available on the Portal for reference.

[Food science (14-16 Years) - Food A Fact Of Life]



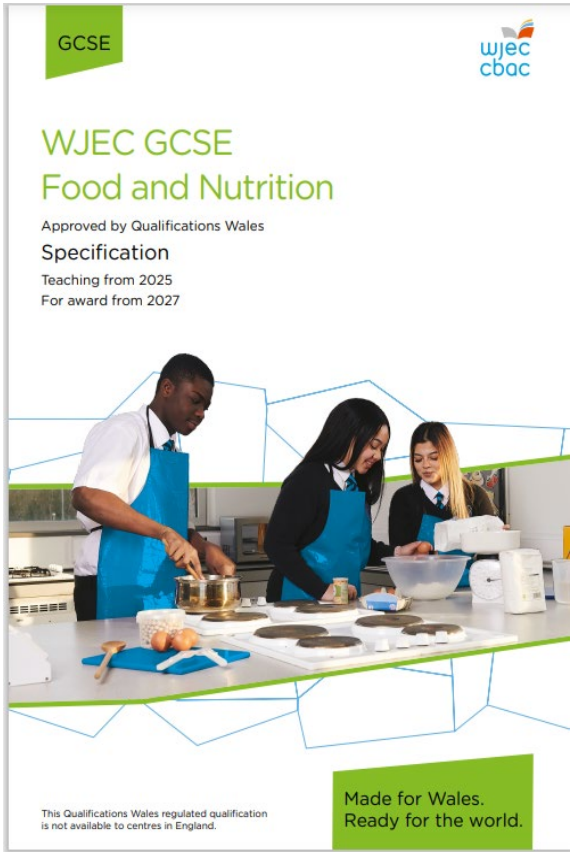


TGAU
GCSE

GET THE CONTENT DONE BY THE END OF THE SUMMER TERM

CLASSROOM DISPLAY BOARDS

You need to start teaching the content as soon as possible, preferably all completed by the end of the summer term. This is available on May 1st. There is a recommendation of 8 hours for the task. Teach the science with each commodity. Start small – simple experiments like enzymic browning when teaching fruit and vegetables as a commodity. Use organoleptic/sensory vocabulary immediately. Talk adaptations to all recipes. How can they be adapted?



wjec-gcse-food-and-nutrition-specification.pdf

TGAU
GCSE

MAKE THE SCIENCE DEPARTMENT TECHNICIAN YOUR NEW BEST FRIEND

Specialist equipment is expensive. Science have plenty. They also have expertise and advice.

OR YOU CAN
DIY

They have so much fabulous specialist equipment that you probably don't have. This stuff is expensive. They have expertise and experience. You can DIY some equipment but go to them first.

TGAU
GCSE

REMEMBER YOUR NEIGHBOURS THE DT DEPT.....

They can make, cut, adapt many things for you - CHEAPLY

They can make moulds, shapers, height rods for rolling out. Go to them early in the term, so that they can start helping you put equipment together for your class box.

LASER CUTTER

3D PRINTER

BAND SAW

TGAU
GCSE

GET YOUR RESOURCES READY…. BUILD A CLASS BOX. REMEMBER ACCURACY IS VITAL FOR RECORDING RESULTS IN THIS TASK

Get your resources ready, build a class box. Remember that accuracy is vital in this task for recording results. As soon as you have decided on the task, you can start collecting equipment you need. Measuring cups or jugs, electronic weighing scales, viscosity charts. Get a big plastic box and start your journey before your learners. Remember this task is available on May 1st and many centres do not start this task until September of Year 11.

TGAU
GCSE

TEACH YOUR STUDENTS HOW TO RECORD RESULTS

What can you use?.....

Star diagrams
Munsell charts
Photographic evidence
Viscosity charts
Tasting and testing
Hedonic scale
Using sensory/organoleptic vocabulary
Charts and graphs
Descriptions of activities and outcomes

You need to teach your students how to record results. Not all of these are needed for every task of course. But you will need to teach these methods to your students so that they can choose the best method of showing their results depending on the task, experiment, the variable the adaptations and so on.

TGAU
GCSE

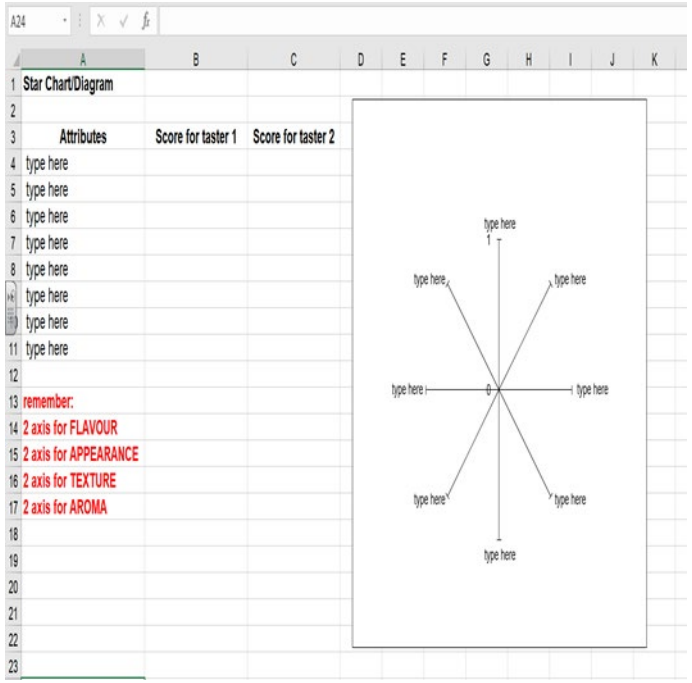
MUNSELL CHARTS… GO TO YOUR LOCAL DIY STORE

Munsell charts are a really really good tool for showing results. But, they are also extremely expensive. What about going to your local DIY store and getting some paint cards and making your own charts. Choose the colour palette you think is best suited. Start with the control colour and work your scale out from these. These are really useful with investigations that involve colour as a variable. For example bread, pastry, choux, biscuits, green vegetables. Use your own Munsell chart instead.

TGAU
GCSE

STAR DIAGRAMS – A FABULOUS WAY OF SHOWING RESULTS

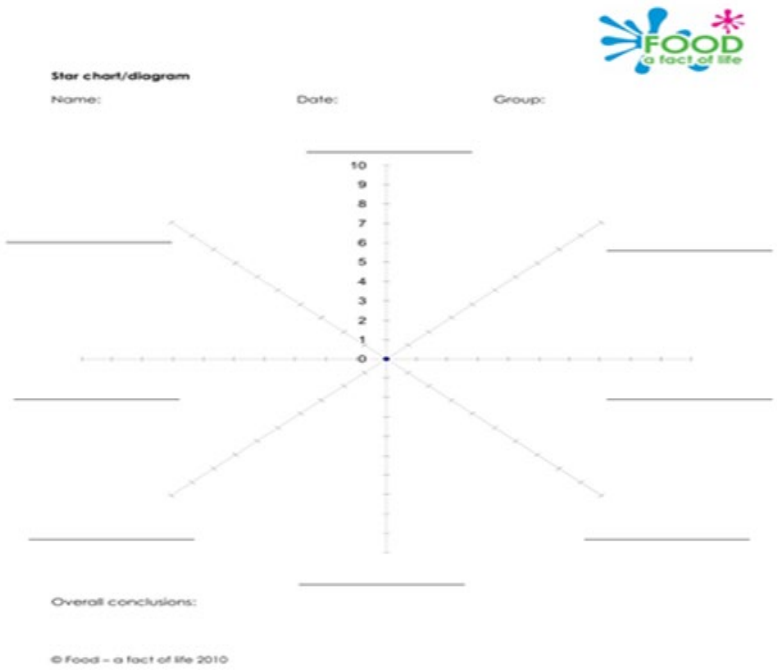
wjec cbac



	A	B	C
1	Star Chart/Diagram		
2			
3	Attributes	Score for taster 1	Score for taster 2
4	type here		
5	type here		
6	type here		
7	type here		
8	type here		
9	type here		
10	type here		
11	type here		
12			
13	remember:		
14	2 axis for FLAVOUR		
15	2 axis for APPEARANCE		
16	2 axis for TEXTURE		
17	2 axis for AROMA		
18			
19			
20			
21			
22			
23			

[star-diagram-for-food-investigation.xls (live.com](#)

https://blog.nutritionprogram.co.uk
Paid for resource



[star-chart-ws-1114c2.docx (live.com](#)

TGAU
GCSE

DO A LESSON IN FOOD PHOTOGRAPHY

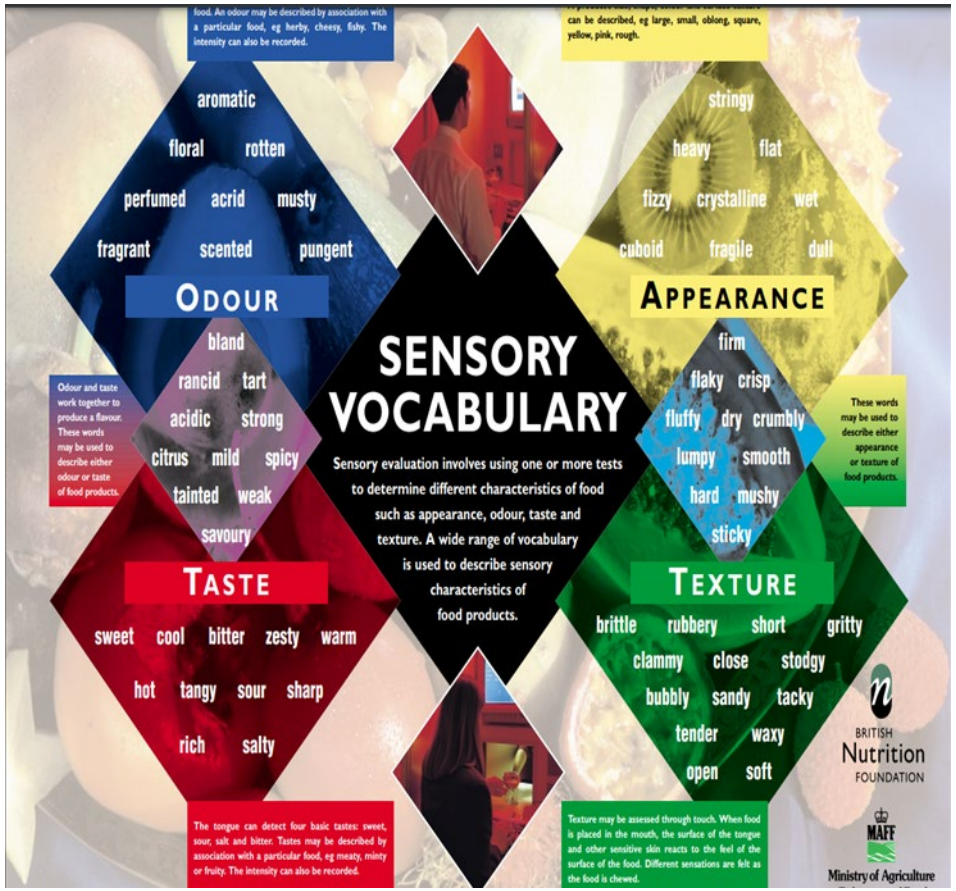
GET A CHEAP DESK LAMP
CLASS SET OF CUP CAKES
DIFFERENT COLOURED PAPER/PLATES
TRY DIFFERENT ANGLES
FLASH/NO FLASH
SCHOOL POLICY ON MOBILE PHONES?
SETTING OUT YOUR PHOTOGRAPHIC EVIDENCE

Using a chart is an effective way of putting photos on the work.

Do a lesson in food photography, learners take selfies all day every day. Food photography – not so much. Get yourself a batch of cup cakes, a desk lamp, different coloured plates and paper. Let them play, take loads of photos to see which ones look the best. School policy on mobile phones obviously comes into this. But if you can use phones – great, as they will need plenty of good photographic evidence in their results. Get them to set the photos out. A chart works well, or wrap text, depending on the softwear you have in school. How would you label the photos? Handy hint. Get your learners to download any photos at home onto their school one drive. This saves so much time, as they can then just move these across to their secure NEA during their timed lessons.

TGAU
GCSE

USE SPECIALIST ORGANOLEPTIC VOCABULARY

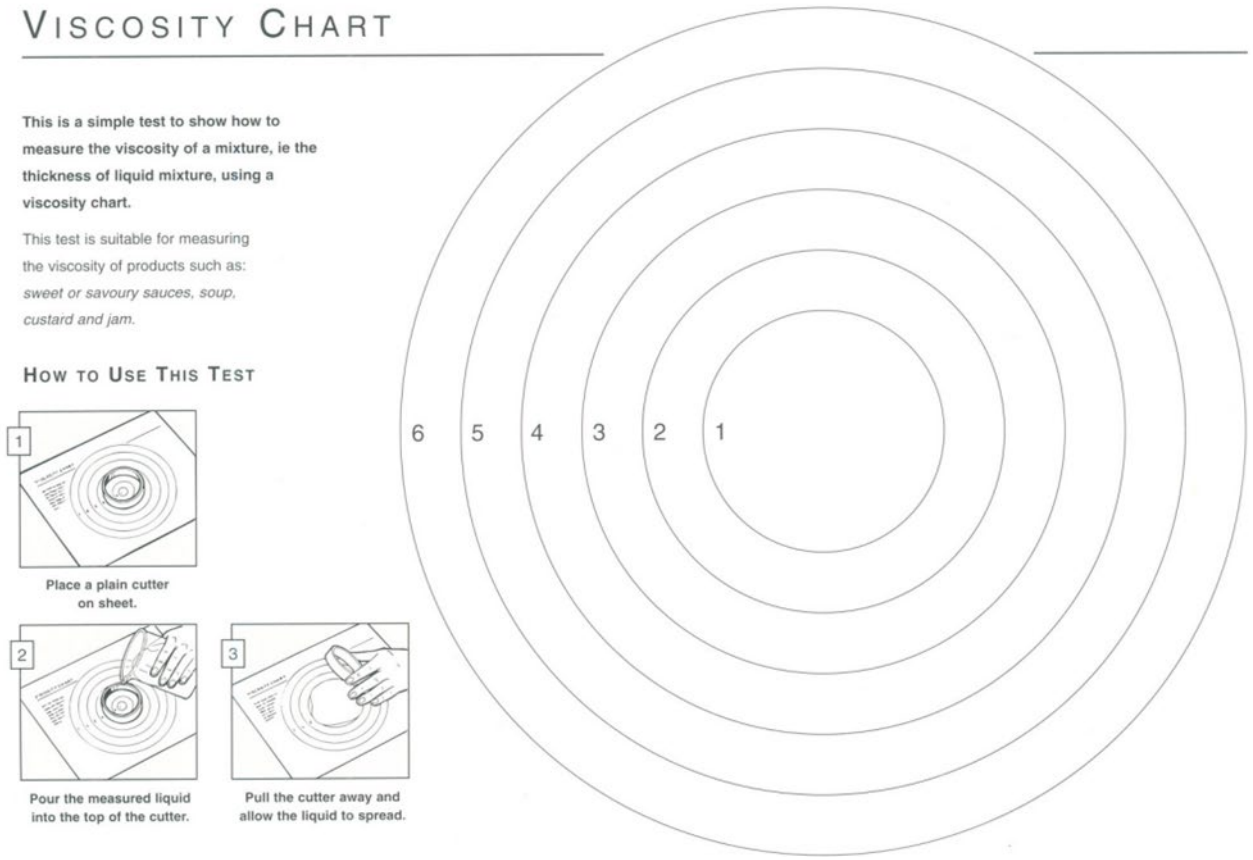


https://www.foodafactoflife.org.uk

Get the students used to using organoleptic or sensory vocabulary. They will need this when doing their tasting and testing. Remember “nice is not precise”! This is important for Unit 2 & 3. There are plenty of free resources, this example is from Food a fact of life website. You can do a fabulous display for your classroom wall or make a sheet to put in their classbooks to complete every time they cook.

TGAU
GCSE

VISCOSITY CHARTS



Viscosity Chart

This is a simple test to show how to measure the viscosity of a mixture, ie the thickness of liquid mixture, using a viscosity chart.

This test is suitable for measuring the viscosity of products such as: *sweet or savoury sauces, soup, custard and jam.*

How to Use This Test

1 Place a plain cutter on sheet.

2 Pour the measured liquid into the top of the cutter.

3 Pull the cutter away and allow the liquid to spread.

6 5 4 3 2 1

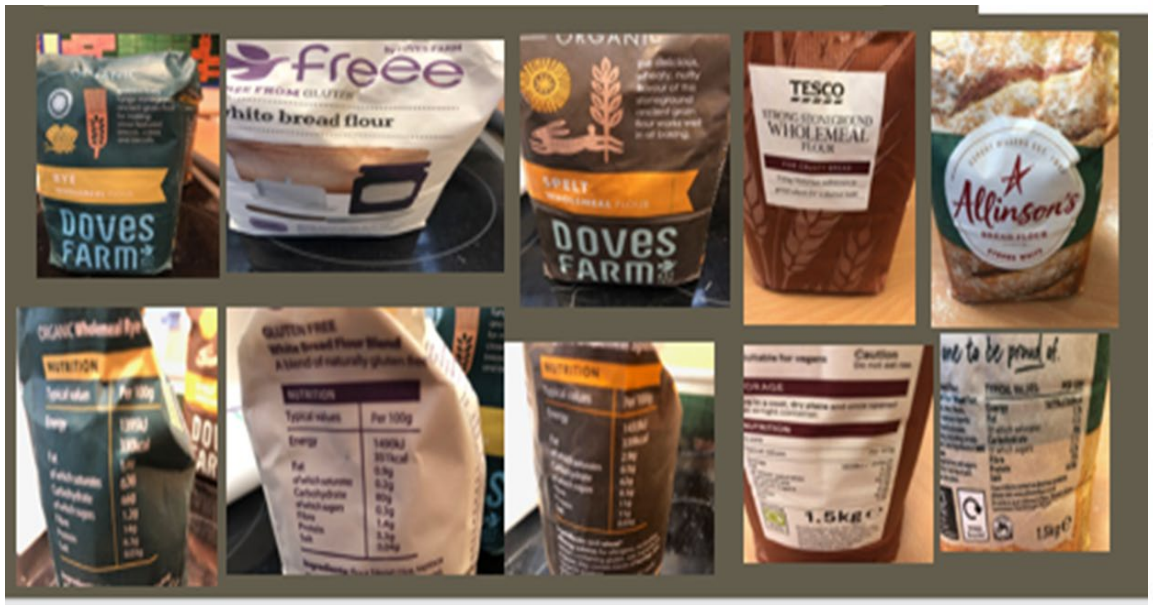
There is an example on the WJEC and Food a fact of life website. Photocopy and laminate a class set
wjec.co.uk/umbraco/surface/blobstorage/download?nodeId=5384

Viscosity charts are invaluable if the task is something like a sauce. Good examples on the WJEC and Food a fact of life website. The links are on the slide. This can also be used if a task needs a student to roll out something to a particular size, for example pastry, and they did not intend on weighing it. This could be used a template for size.

TGAU
GCSE

KEEP PACKAGING

A photograph works just as well. The ingredient list, nutritional analysis. Sometimes this is the information the students need and not the contents. This works well with unusual ingredients and the expensive ones!!



Keep all the packaging. Sometimes the students need the information on the label more than the contents. Especially if they are doing a nutritional analysis. Some food stuffs are really expensive. A photo may be enough.

TGAU GCSE

CUT DOWN THE RECIPE – CUT YOUR COSTS

This task can be expensive.
Cut down on the basic recipe if possible. For example – a biscuit task - Try halving the recipe. Find an amount that will still produce two/three good biscuits for each experiment. Get the students to try this for their control and then adapt accordingly – depending on their experiments and hypothesis.

Cut down on the task – it can be expensive. Try halving a recipe, especially with bread , biscuits or pastry. You don't need 25 biscuits when 3 will do. Remember, teachers can also make the control to save time and cost, It will also be accurate. Students can then compare their variables to this accurate control. Learners can now complete Task 2 in small groups, again saving on cost as many learners use the same variables for their testing. They **must** record their results independently.

TGAU
GCSE

ACCURACY MATTERS

These are scientific experiments so accuracy matters. Weigh as much as you can with the digital scale, even when it comes to liquids. This way you know that you will get accurate results for the comparisons. Cocktail sticks are really good when it comes to measuring the depth

TGAU
GCSE

If you have queries regarding this resource or require any information about the qualification. Please contact the team.

CONTACTS:

Contact our specialist Subject Officer and administrative support team with any queries.

Allison Candy - Subject Officer
food@wjec.co.uk

Gemma Edwards - Subject Support Officer
food@wjec.co.uk

Sian Williams – Subject Advisor
food@wjec.co.uk

E assessment
e-assessment@wjec.co.uk

TGAU
GCSE

wjec
cbac

Yn arbennig i Gymru.
Yn barod i'r byd.

Made for Wales.
Ready for the world.

www.cbac.co.uk/YnarbennigiGymru
www.wjec.co.uk/MadeforWales