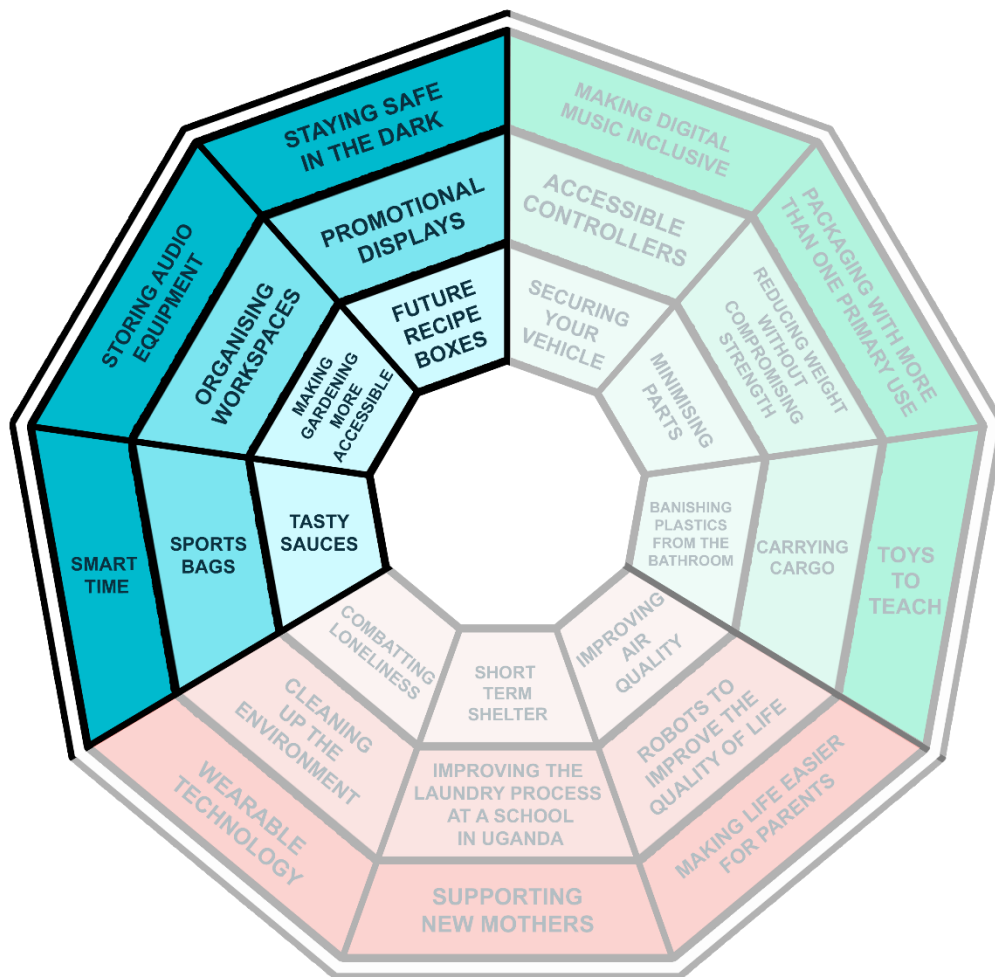


INSPIRED BY INDUSTRY

The future of recipe boxes

#InspiredbyMindfulChef



Mindful Chef

Introduction

This context has been put together to allow for a range of opportunities for students to explore the design of modern recipe boxes that are so popular with households. This has the opportunity to be based around cooking and nutrition or through packaging design.

Materials

There are a number of approaches that can be taken here. Through the exploration of cooking and nutrition, fresh ingredients and the method of both delivering to homes and also the preparation to allow individuals a simplified method of preparing fresh, nutritious meals. Similarly it allows the opportunity to investigate packaging and communication. There is the opportunity to explore material properties and graphic design / communication, whilst also exploring nets and innovative, sustainable food packaging. Opportunities to look at vacuum-forming, die-cutting and more can be found here.

Potential outcomes

The outcomes are likely to be varied. If taking a cooking and nutrition approach the students are likely to produce final meal ideas that can, in turn be broken down into individual ingredients that may (in theory) be packaged up and sent to customers. Whilst the preparation and execution of a meal is the ultimate aim, having the constraints of it being in a recipe box adds both context and added challenge. Meals can be photographed and mock-ups produced for any step-by-step instructions. There is the opportunity here to explore both the meal and also the packaging in two aspects of design and technology. The packaging of the recipe boxes can be both through making their own 'box' and recipe cards, but also exploring the 'future' of these boxes and exploring unconventional routes. Possibly video instructions via QR codes, maybe the user is someone (or something!) different... Could the packaging have a dual use...

It is important that students are given some freedom within this context and so outcomes should vary between students / groups. Whilst focused tasks are likely to explore nets / packaging and/or cooking and nutrition skills, having students take ownership and exploration to solve a real problem is key.

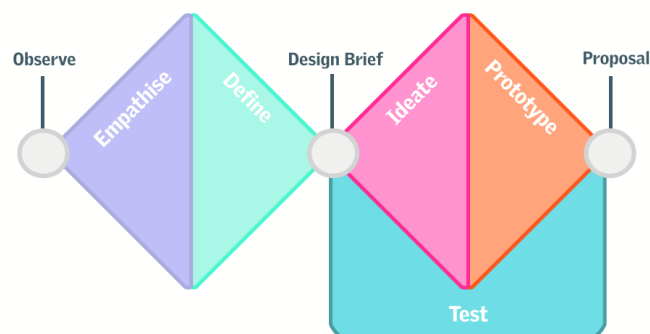
Examples may include (but not be limited to):

Recipe box for a student, for a birthday party, themed event. Packaging to excite, packaging with a dual purpose, alternative materials, sectioned packaging.

Consider sharing work on social media using the hashtag #InspiredbyMindfulChef

Design cycle

The design cycle shown can be worked through in a range of orders. It's advised that the areas are revisited throughout the process depending on your time. We advise that a graphical representation of thinking convergent and then divergent may be shown to your students.



The following are some tips as to the type of activities you could do with your students.

Empathize stage

- Students should be introduced to this term if not already familiar.
- Consider as a group thinking about all the groups of people that are potentially a customer here. Encourage a no-silly-answer mindset.
- At the start of the context, students should be thinking wide with their thoughts, exploring the problem and not deciding too soon what they 'want to make'.
- Observation for this context may be watching an adult at home cooking a meal, preparing a meal themselves or unboxing and cooking a recipe box.
- Consider ordering a few meals from a recipe box provide. Get the students to go through the process of ordering from the website (explore as a class) to unboxing and cooking. This will give them the whole user-journey, exploring imagery, user experience, followed by taste-testing and more. As this is done, they should be analysing areas of potential development, what they liked, found easy/difficult. Teachers/schools of this context can get 50% off their first order [here](#) with the code **MXCDT50** !
- If gaining access to recipe boxes is hard, you may want to look at takeaways as a similar 'product'. This can allow you to look at packaging.
- Questionnaires of eating habits for the group of people they are looking to design for can be useful to spot trends. Similarly looking at the Eatwell Guide and recommended nutritional information can ensure people are getting the nutrition they require later in the ideate stage.
- This is an opportunity to explore different cultures, religions and beliefs with regards to diet and food. Consider giving as a homework task to research and present findings before considering labelling required.

Define stage

- This is where students try to get the real root of the problem and decide what they are going to do.
- There may be a whole range of 'customers' identified. An infant recipe box, a recipe box for a spaceman– why not! Allow your students to think creatively. Define the user at this stage and the precise problem they are tackling. This may be the price range they are willing to pay as well as nutrition / dietary requirements. If tackling the packaging aspects, what are the main problems / intentions. Remember not to think what it may look like at this stage, but identify a clear, focused problem. You may want to get them to back up the reason it is important – possibly looking at stats and an infographic?
- The '5 whys' may be a good resource to run through with students. You could even pair them up to do this with each other at the define / empathy stage [VIDEO HERE](#)
- This is a good opportunity to introduce contextual challenges to students and get them to consider all aspects of the problem. They may wish to work as a group and produce a whole recipe box from branding and packaging to meals. It will undoubtedly need some support from you as a teacher. Please get students to share their thinking as clearly as they are able.

- Get students to create a specification. Whilst templates / writing frames are fine at KS3, you will want to avoid this at KS4. Consider using columns such as 'Essential', 'Desirable' and 'Definitely not'.

Ideate stage

- If you decide students are working in a team, having regular meetings (with you setting the agenda / reason for the meeting) is important. Having kick-off meetings like at Mindful Chef can make students appreciate how design teams work. This will involve them (with your input) deciding timescales, constraints, requirements and more.
- Research is essential at this stage too. Exploration of recipes in books and online and the opportunity to adapt these is good practice.
- Even if recipes are dictated (to an extent) with students who are less confident, there should still be an opportunity to 'make it their own'. This may in its simplest terms, how to present it on a plate for photos/imagery to be used in the recipe cards.
- Get students to identify patterns and trends for what their user likes / dislikes. This may not be in the form of food necessarily, but try and think wider. For example, teenagers like to eat and play on their phone and eat in their room. This may give the idea of food to eat one-handed, and something that doesn't make too much mess, or strong smelling in a small environment.
- Ideas for the food element may initially be through words. Maybe key, buzz words to summarize the types of food enjoyed. Similarly, mindmaps and moodboards can do a similar thing.
- If exploring the packaging or instruction elements, ideas can also be produced through making. Get students experimenting with materials early on. Is there an opportunity to explore how other countries package and serve food? In Malaysia it's common practice to have iced coffee served in a bag with a straw and elastic band keeping it all together! Is this approach better than a polystyrene cup and lid?...
- You may want to give students set packaging templates to either adapt, or to select from. Remember, there should be an element of problem-solving and creativity, so be cautious making it solely a graphics-based activity. Maybe create a sleeve for a set tray size, possibly even creating trays using a vacuum former and food-grade polymer. These could be scaled down with students creating the moulds also.
- The outcome can also feature a video element, combining all elements produced and put into a video advert as a final presentation showcase piece.
- Get students to keep sketching. It may not be the whole item / product, it may be parts of it – a method of keeping paper / recipes in the box, ways to package / label ingredients.
- There is an opportunity in this context to explore how different food is processed and sold in different ways e.g. conventional and organic farming, fair trade etc. There is also aspects linked to food miles and the ethics surrounding local vs national vs international produce.

Prototype stage

- This stage allows for a good opportunity to 'reverse engineer' dishes. Students will need to write clear step-by-step instructions for other users. Consider doing this in pairs and swap each week to see how easy they are to follow.
- Explore lo-fi prototypes at early stages (packaging).

- If you have access to a vinyl cutter, some models such as [this](#) have the ability to read registration marks and so printing and cutting becomes a possibility.
- Explore how to laser-cut printed card by looking at creating your own alignment marks and aligning on your laser. As with any print and cut, having 'bleed' will ensure a better finish.
- Some companies, such as [ICSAT](#) sell die cutters and a variety of box templates that make good demonstration pieces with students.
- Consider asking a local printing company to print some of your students' work. Not only is the finish likely to be superior, it's a good opportunity to delve into commercial printing and navigating GSM, Dpi, RGB, CMYK, Bleed, Crop marks and more!
- 2D CAD is likely to be beneficial. You may wish to explore:
 - [ILLUSTRATOR](#)
 - [AFFINITY DESIGNER](#)
 - [TECHSOFT DESIGN](#)
 - [FOCUS 2D](#)
 - [CORELDRAW](#)
- Throughout the process, ensure students follow procedures for health, safety and hygiene, and understand the process of risk assessment.

Test stage

- Although this is the final stage of the design cycle, encourage students to evaluate throughout and act on their feedback (and consider the feedback of others too). It is not a final thing, but a step to improve further.
- Taste testing is an obvious one. It can be hard without comparison, so consider working in groups with each member making a slight variation on a theme. When taste-testing people can then give their preferences.
- When possible, use the 'user-group' it is intended for to get genuine feedback.
- Package up meals and get others to follow the instructions how to make the dish. Get students to observe and see where instructions could be improved or products packaged better etc.
- Close observation is key – where do people look, what order do they do things? Do they open it and read instructions? Do they look at the back of the packaging first? Do they tear the packaging open or carefully slide it open? Have you ever accidentally thrown away instructions? Have you ripped open a packet, only to realise you have ripped through the instructions on the packet? These are all key things to look at and evaluate in this stage.
- This could be a good opportunity to explore mathematical content by getting students to calculate amount of material used, costs etc. There is always a balancing act here. Could you cut down on materials / ingredients, saving money without negatively impacting quality?!

Focused tasks

<u>'Nets and developments'</u>	<u>'Digital design'</u>	<u>'Practical maths'</u>	<u>'Strong structures'</u>
Flatten existing boxes to see how they are folded into nets to help you design your own.	Use CAD and/or digital art packages to create a net for a recipe box and the associated graphics.	How can maths and science be applied to design? Explore maths through the development of the packaging, costing the ingredients etc.	Your recipe box needs to be strong enough to store and transport the contents. Explore shell structures in packaging and test out your ideas.
<u>'Taste trends'</u>	<u>'Presentation'</u>	<u>'Calorie counting'</u>	<u>'Follow me'</u>
Explore the range of recipe boxes on the market and note any trends in style of ingredients.	If we 'eat with our eyes', how can you make food look better in your presentation methods?	Your recipes need to be conscious of calories but also in providing a balance of nutrition and taste.	Without being there to show someone how to cook, explore how you will make instructions easy to follow in order to create your recipe how you intended.

Investigative and Evaluative Activities

<u>'Taste trends'</u>	<u>'Reverse engineer'</u>	<u>'Values'</u>	<u>'Structural testing'</u>
Explore the range of recipe boxes on the market and note any trends in style of ingredients. Try some blind taste tests.	Learn how boxes are designed and constructed by disassembling an existing recipe box, before replicating it – possibly creating the net using CAD.	What values or specific needs are there to consider when designing a recipe box? Think of religion, nutrition, lifestyle and ethical choices.	Test a range of packaging boxes and materials to destruction. Note how they performed to help you design ways of improving them in your own designs.

