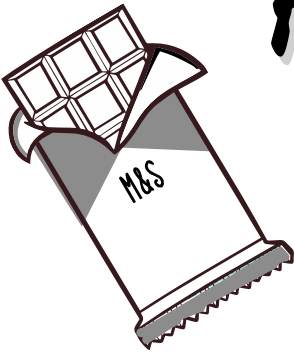


M&S ARCHIVE

PROOF OF
the pudding



For Home Educators
Ages 4-11

M&S Proof of the Pudding Summary

This workshop supports learning by providing enriching and fun learning activities. Explore the science of baking and chocolate, and find out about the functions of different ingredients in our Chocolate Melt in the Middle Pudding. Learn about the power of advertising, and design your own new dessert product. Finally, use scientific thinking to conduct a delicious taste test.

Learning Objectives

- To learn about the science of the M&S Chocolate Melt in the Middle Pudding
- To design a new dessert product
- To use scientific thinking to conduct a taste test

Links to other subjects

Science - working scientifically, properties and changes of materials – irreversible changes

DT - product evaluation and design

Literacy - persuasive writing, vocabulary

Geography - Fair Trade



Resources provided with this pack

- PowerPoint slides
- Short films;
 - Promoting the Pudding
 - Perfect Pudding?
 - Emulsifiers
- Ingredients cards - print and cut into packs
- Invent a Pudding worksheet
- Taste Test worksheet



You will need (not supplied with this pack)

- M&S Chocolate Melt in the Middle Puddings (sold as a 2 pack)
- Spoons and plates
- Access to a microwave

ALLERGENS AND DIETARY REQUIREMENTS

- The puddings do not contain nuts but are **not suitable for people with nut/peanut allergies** due to the manufacturing process.
- Puddings contain **milk, egg, gluten** and **soya**.
- They are suitable for vegetarians.
- The Taste Test worksheet is editable to allow you to adapt the criteria for any replacement food you are using.

Plan



Activity	Content	Resources
Starter	<p>Q. What is a pudding? Think of words that define a pudding.</p> <p>ACTIVITY:</p> <p>Q. What's your favourite pudding?</p> <p>Q. Why do you like it?</p>	Slides 2-3
Introduction	<p>Watch the Promoting the Pudding film</p> <p>Q: Why do you think so many people bought puddings after seeing the 'This is not just food...' TV advert?</p>	Slide 4 Promoting the Pudding film
Creating the Pudding	<p>It took 18 months for the pudding to be developed.</p> <p>Q: Why do you think it took so long to get the pudding right?</p> <p>Watch the Perfect Pudding? Film and look for ways the pudding goes wrong.</p> <p>ACTIVITY:</p> <p>Q: What would a failed pudding look, smell and taste like? Q: What about a successful pudding?</p>	Slides 5-8 Perfect Pudding? Film Paper
Ingredients	<p>Identify key ingredients of this type of pudding. ACTIVITY: Match ingredient pictures to descriptions and molecular structure.</p>	Slides 9-11 Ingredients card pack
Why do we like chocolate?	<p>Q: Who likes chocolate? Why do you like it?</p> <p>Learn about caffeine, theobromine and why we love chocolate.</p>	Slide 12
Helpful additions	<p>Q: Why are there so many more ingredients in the M&S pudding than in a homemade pudding?</p> <p>Have a closer look at emulsifiers, find out what they do and why they are important. Watch the Emulsifiers film.</p>	Slides 13-14 Emulsifiers film
Invent a pudding	<p>ACTIVITY: Invent a new pudding. Using the Invent a Pudding worksheet, draw your pudding, give it a name, label your drawing to show the different elements and write a list of ingredients.</p>	Slides 15 Invent a Pudding worksheet
Taste Test	<p>ACTIVITY: Taste test the pudding and score it against a list of criteria.</p>	Slide 16-17 Taste Test worksheet
Plenary	<p>Q: What makes a perfect pudding?</p> <p>ACTIVITY: Mind map everything that has contributed to the success of the M&S Chocolate Melt in the Middle Pudding.</p>	Slide 18 paper

Let's get started...

Slides 2-3

Q. What is a pudding?

Think of words that define a pudding as opposed to a snack, biscuit or sweet.

Q. What's your favourite pudding?

Q. Why do you like it?

We're going to be looking closely at one pudding in particular, and what makes it so special.

M&S



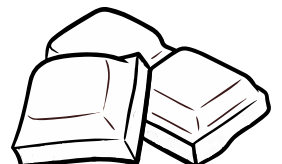
Introduction

You will need: Promoting the Pudding film

Watch the Promoting the Pudding film to introduce the pudding and how it was first promoted to customers.

Q: Why do you think so many people bought puddings after seeing the 'This is not just food...' TV advert?

- How does the advert appeal to a customer's senses?
- What sort of information does the advert provide?



Creating the Pudding

You will need: Perfect Pudding? Film, paper

It took 18 months for the pudding to be developed. This is a long time in food development terms.

Q: Why do you think it took so long to get the pudding right?

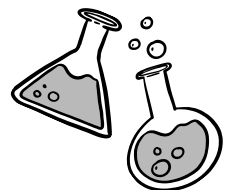
Watch the Perfect Pudding? film. Look for ways the pudding goes wrong. Can you suggest what has happened each time to cause the failure?

Q: How would you describe a failed pudding? Think about what it would look, smell and taste like and why. Why not mind map your ideas?

Q: How would you describe a successful pudding?

A further challenge... Pudding Poetry

- Use your mind map to make poems. Poems could be about failed or perfect puddings or about the transition from one to the other!
- Write a poem from a pudding's point of view about what has happened to it.



Ingredients

Slides 9-10

You will need: Ingredients card pack (print and cut along dotted lines).

Q: What were the five key ingredients used to make the pudding in the Perfect Pudding? film.

A: Flour, butter, sugar, eggs and chocolate.

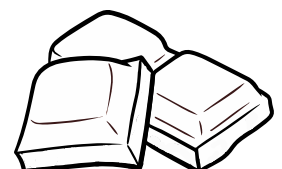
There would be other ingredients added to the recipe to make our M&S pudding, but we are going to find out more about these five essential ingredients for this activity.

ACTIVITY: Each card pack contains 5 photographs (1 of each ingredient) and 5 written descriptions. Match the descriptions to the correct photograph.

This is a great opportunity to link to science and talk about irreversible changes such as eggs changing from liquid to solid. See next page for changes.

Further challenges...

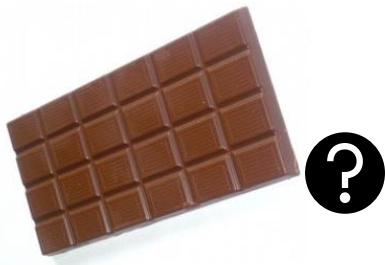
- How could you adapt the pudding for people with dietary needs or preferences e.g. vegan, gluten-free, low fat, sugar-free.
- Can you suggest alternative ingredients for the ones that would have to be removed?



Ingredients Card Match Answers



This ingredient changes from a liquid to a solid when heated. It adds flavour and helps to hold the structure of the sponge. When you beat it, it traps air bubbles in the pudding mix.



This ingredient is solid at room temperature, but when eaten it absorbs heat from your mouth and melts at body temperature – producing a melt-in-the-mouth effect.

It contains a weak stimulant, sugar and caffeine.



This ingredient forms gluten when mixed with water. This helps the sponge to hold hot air bubbles as the pudding rises. This ingredient helps the pudding to hold its shape.



This ingredient contains vitamins and enhances the flavours of other ingredients. It helps to keep the pudding moist and gives the sponge a smooth texture.



This ingredient provides sweetness and helps to keep moisture in the pudding mix. Reducing the amount of this ingredient can cause loss of moisture and sweetness.



See overleaf for information about theobromine

Why do we like chocolate?

Slide 12

Q: Who likes chocolate? Why do you like it so much?

A: It's all about the science of chocolate

Chocolate is a source of quick energy because it contains lots of carbohydrates, it also has tiny amounts of natural chemicals which give us the "feel good" feeling we sometimes get from chocolate.

Two of these chemicals are mentioned on the ingredient cards; caffeine and theobromine.

Q: Have you heard of caffeine before? Which drinks contain lots of caffeine?

- It is a stimulant – it wakes us up and increases our mental activity for short periods of time.
- In children, only a small amount can cause stomach upsets, headaches and dehydration (by making us need to wee more!).

Let's find out about Theobromine

- Theobromine comes from the cacao bean and gives chocolate its bitter taste.
- It's also a weak stimulant that triggers the pleasure centre in our brains making us feel good – it's one of the main reasons we enjoy eating chocolate.
- It's also toxic to dogs, which is why you shouldn't give dogs human chocolate!



Helpful Additions

The slide shows the ingredient list for the M&S Chocolate Melt in the Middle Pudding.

Q: Why are there more ingredients in the M&S pudding than in a homemade pudding?

Hint: When you bake, when do you eat your cakes? Straight away!
Our puddings have to stay fresh for a lot longer to get from our factories to the stores, and then to the customers.

A: Most ready-to-eat convenience foods that you buy in the shops have more ingredients than the food you'd cook at home. This is because;

- Preservatives and stabilisers extend the shelf life of the foods – keeping them fresh for longer.
- Convenience foods must be perfect when they reach the customer.
- The texture, flavour and colour have to be exactly the same every single time.
- Flavourings, preservatives and stabilisers keep the foods perfect through the whole production process.

Continues overleaf

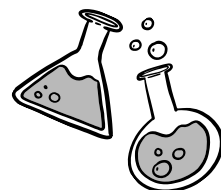
Helpful Additions cont.

Slide 14

You will need: Emulsifiers film

Explain we're going to look at one of these ingredients in more detail.

Watch the Emulsifiers film.



Q: What do emulsifiers do?

- Emulsifiers stop oil (fats) and water (non-fats) from separating.
- They act as connectors between two liquids that would normally be impossible to mix.

Q: So why are emulsifiers important for making chocolate?

- Chocolate is made of non-fat solids - cocoa solids and sugar - mixed with fatty cocoa butter.
- Emulsifiers help the fatty and non-fat ingredients stay mixed together, otherwise they would split apart.
- Emulsifiers mean that chocolate can be easily shaped and moulded to make chocolate bars, eggs, rabbits, frogs etc.

A further challenge...

- Can you think of any other foods that might contain emulsifiers to help mix fats with other ingredients?
Salad dressings, pasta sauce, peanut butter...

Invent a Pudding

You will need: Invent a Pudding worksheet

ACTIVITY: Invent a new pudding.

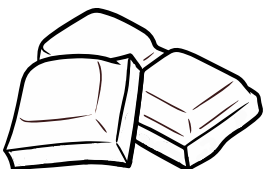
Using the Invent a Pudding worksheet draw your pudding, give it a name, label your drawing to show the different elements and write a list of ingredients.

INVENTING TIP – Getting started

Coming up with a new idea can be really tricky. You could think about your top two favourite puddings and combine the best bits to make something totally new!

A further challenge...

- Design packaging or an advert for your pudding.



Taste Test

You will need: M&S Chocolate Melt in the Middle Puddings, access to a microwave and/or oven, sharp knife, plates, spoons

You are going to conduct a taste test with the M&S Chocolate Melt in the Middle Pudding – just like our food technologists do with all our food products.

You'll need to eat **slowly** so you can concentrate on what you can taste and what textures you can feel.

ACTIVITY: Taste the pudding and score it out of five against the criteria on the worksheet. Feel free to edit the criteria on the worksheet to suit your learners.

Q: Which criteria did you give the lowest score and why?

Q: Which one did you give the highest score and why?

Q: Suggest one thing that would improve the pudding.

Further challenges...

- Devise your own criteria for testing
- Taste test a range of M&S puddings or a range of melt in the middle puddings



Plenary

You will need:. Paper for mind maps

Q: What made the M&S Chocolate Melt in the Middle Pudding such a success?

ACTIVITY Mind map everything that has contributed to the success of the M&S Chocolate Melt in the Middle Pudding.

Think about:

- The idea for the pudding
- How the pudding came about
- The quality of the product
- Why people still love it so many years later.

A further challenge...

- Have a go at making your pudding invention!



Resource Evaluation Form

We hope you've enjoyed using this resource. To make sure that we're providing the best resources that we can, we'd be grateful if you could answer the following questions and let us know how we're doing.

Date you used the resource:

How did you find out about the resource?

How does this resource link to your learning activities or planning?

What did you like most about the resource?

What would you change?

Would you recommend the M&S Archive resources to other learners?

Why?

Thank you for your comments

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