

# Develop a Product

## INVENTING A DAIRY PRODUCT

### ESSENTIAL QUESTION

# How are new dairy products created?

#### WHAT ARE WE LEARNING?

- How the dairy industry is connected with innovation.
- The key parts of the process involved in developing a new food product.
- Investigating a career that is strongly connected to the dairy industry.

#### TRY THIS WITH

- Years 3-4
- Students who have an interest in product development.
- Students who like testing and creating.

## FIND

- |         |            |
|---------|------------|
| Label   | Match      |
| Name    | Illustrate |
| Compare | Discuss    |

Challenge students to find as many images of the dairy aisles in supermarkets as possible.

Encourage images from around the world and print one from each country.

Sort into groups, regroup as many times as possible.

Visit your local supermarket or use an online site to identify and list all the different types of dairy products available for sale in NZ.

Create a visual bar graph that shows the findings.

What trends are shown in the graph?

Use Google to investigate the top/weirdest/strangest/most popular flavours of ice-cream and milk internationally.

Create a class continuum that shows the 'class most and least favourite flavours'.

Ask a buddy class to contribute to the continuum which any extra flavours.



## APPLY

- |       |           |
|-------|-----------|
| Build | Discover  |
| Group | Survey    |
| Model | Interview |

Explain that as a class they will be designing an entirely new flavoured milk or ice-cream. Identify the 5 senses and ask which sense(s) is the most important when thinking of a food product.

Discuss the idea of "sensing food".

Discuss why different people have different tastes.

Share the taste animation.

Try the tongue map experiment.

Categorise the dairy products from earlier into groups - bitter, sweet, sour and salty.

Review the Science of Ice Cream infographic.

Compile class definitions for the following words:

- Ice Cream Fats
- Ice Cream Flavours
- Ice Cream Colours

Finalise the class flavour and record what might be needed to create it.



## PRODUCE

- |        |           |
|--------|-----------|
| Create | Develop   |
| Defend | Prove     |
| Rate   | Recommend |

Challenge students to research and design their own new flavour for a dairy product.

Identify a target audience for the new flavour and complete wider research.

Balance creativity, innovation and target audience when deciding upon the final flavour.

Plan and consider how to make the new dairy product.

Create a list for what equipment and ingredients students will need.

Question students about how they will control the strength of the flavour.

Allow students time to create their product.

Did it taste like how they imagined it would? Did they like it?

Encourage students to rework if necessary to ensure the product has a balance between being new and fresh and being appealing to the market.



## SUCCESS CRITERIA

Students can check they have completed the task successfully by:

- Producing a flavoured dairy product.
- Discussing the steps to producing a new dairy product.
- Articulating why their product would appeal to their chosen audience.

PRINCIPLES	VALUES	KEY COMPETENCIES	LEARNING AREAS	WORD BANK	KEY CONCEPTS
Future focus Community engagement	Innovation, inquiry and curiosity Diversity Excellence	Thinking Managing self Participating and contributing	Technology English CREST	Ingredients Flavour Target audience Process	Senses Product Design Target Audience Food Development