

### 3. Making toothpaste



2  
hours

Children make their own types of toothpaste following a range of recipes. They choose the flavours and colours. They then test their toothpaste and come up with an ultimate toothpaste recipe.

#### OBJECTIVES

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- To make a toothpaste, considering the necessary ingredients.
- To further understand the function of the different ingredients in toothpaste.

#### RESOURCES

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(Per group of 4 children unless otherwise stated)

- Teaspoon
- Small container, e.g. 250 ml beaker or yoghurt pot
- Activity sheet 2c
- Either:
- Activity sheet 3a
- 3 teaspoons of baking soda
- 1/2 teaspoon of salt
- 3 teaspoons of glycerine
- 1-2 teaspoons of peppermint flavouring or crushed peppermints
- 1/2 teaspoon of food colouring (optional)
- 2-3 teaspoons of water
- Or:
- Activity sheet 3b
- 3 teaspoons of mixed gelatine
- 3-5 teaspoons of baking soda
- 1-2 teaspoons of peppermint flavouring or crushed peppermints
- Oil of liquorice, fennel or anise (optional)
- 1/2 teaspoon of food colouring (optional)

#### ADVANCE PREPARATION

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For Toothpaste Recipe B (Activity sheet 3b), mix 10 ml of gelatine with 500 ml of hot water and leave to stand for at least 20-30 minutes.

## INTRODUCING THE ACTIVITY

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Remind the class of the different functions of key toothpaste ingredients using the completed extension/homework activity (Activity sheet 2d).

Explain that they are going to use recipes<sup>1</sup> to make different types of toothpaste and test their effectiveness. Use one of the recipes from Activity sheet 3a or 3b to demonstrate how to make toothpaste, talking through the functions of the different active ingredients as you add them.

## MAIN ACTIVITY

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Children make their own toothpaste using one of the recipe choices. Different groups could follow different recipes. They then test their toothpaste by carrying out tests from Activity 2 recording observations and results on Activity sheet 2c.

## PLENARY

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Discuss the children's results to establish the best recipe and why (use success criteria from Activity 2). As a class, create a recipe for the perfect toothpaste on the board, checking that it has all the necessary active ingredients and functions. Ask why the children think mint is the most common toothpaste flavour, e.g. it has a strong flavour to hide the taste of the other ingredients and it makes our mouths feel clean and fresh.

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<sup>1</sup> These recipes have been adapted from recipes on [www.industryinet.com/~ruby/toothpaste.html](http://www.industryinet.com/~ruby/toothpaste.html) and [www.new-sng.com/tooth.cfm](http://www.new-sng.com/tooth.cfm)