

# *Healthy Teeth Healthy Smiles*

## *Oranga Niho Oranga Kata*

Primary School Teaching Guide

**BeeHealthy**  
Regional Dental Service



Aligned to Level Two – Health and Physical Education, New Zealand Curriculum, Ministry of Education 2007.

**Version 2- 2019**

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0800 TALK TEETH (825 583)

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## *Bee Healthy Regional Dental Service*

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Bee Healthy Regional Dental Service is the community-based dental service for the greater Wellington Region (Wellington, Hutt Valley, Porirua and Kapiti Coast). Formally known as the school dental service, Bee Healthy provides free (publically-funded) dental care for children from birth until their 18<sup>th</sup> birthday.

Children born in the Wellington Region are enrolled at birth with Bee Healthy. Children can be enrolled at any age, but the earlier the better to make the most of the free service, and prevent tooth decay. Enrolment can be completed online at [www.beehealthy.org.nz](http://www.beehealthy.org.nz).

Bee Healthy Mobile Vans visit primary schools throughout the Wellington Region so children can have their annual examination onsite, at school. In cases where further treatment is required, follow-up appointments are made at the nearest Bee Healthy Dental Clinic.

College aged children receive dental care from a dentist in the community who will continue to provide free dental care (excluding orthodontic treatment) until the child's 18<sup>th</sup> birthday.

For further information, visit [www.beehealthy.org.nz](http://www.beehealthy.org.nz) or call 0800 TALK TEETH (0800 825 583).

# About this Teaching Guide

Through their primary school ages, children are developing more responsibility for themselves. By incorporating oral health into the current curriculum, children can be educated to make healthier choices to protect their teeth and prevent tooth decay, and improve their overall health and wellbeing.

This teaching guide aims to:

- Increase children's knowledge about the importance of their teeth.
- Increase children's awareness of self-care to keep their teeth healthy to last a lifetime.
- Reinforce key messages for oral health and general health and wellbeing.

While the Teaching Guide has been developed to align with Level 2, Health and Physical Education of The New Zealand Curriculum, oral health is not a stand-alone topic and may be incorporated into the other strands of the Curriculum.

## Alignment with the New Zealand Curriculum – Level 2

Health and Physical Education		Learning Objectives
Personal Health and Physical Development	<i>A1 Personal Growth and Development</i> Describe their stages of growth and their development needs and demonstrate increasing responsibility for self-care.	<p><i>Children will be able to:</i></p> <ul style="list-style-type: none"> <li>- Identify the basic structure of teeth.</li> <li>- Identify the importance of teeth.</li> <li>- Identify the function of different types of teeth.</li> <li>- Identify the stages of tooth eruption.</li> <li>- Identify the number of primary and secondary teeth.</li> <li>- Investigate and gain an understanding of the key oral health self-management strategies.</li> </ul>
	<i>A3 Safety Management</i> Identify risk and use safe practices in a range of contexts.	<p><i>Children will be able to:</i></p> <ul style="list-style-type: none"> <li>- Identify the factors which increase the risk of tooth decay.</li> <li>- Explain the role of bacteria in tooth decay.</li> <li>- Describe the process of tooth decay.</li> <li>- Identify strategies to prevent and manage poor oral health</li> </ul>
	<i>A4 Personal Identity</i> Identify personal qualities that contribute to a sense of self-worth.	<p><i>Children will be able to:</i></p> <ul style="list-style-type: none"> <li>- Identify how oral health may affect all aspects of health and wellbeing/haoura, and identify key strategies to manage those risks.</li> </ul>
Healthy Communities and Environments	<i>D2 Community Resources</i> Identify and use local community resources and explain how these contribute to a healthy community.	<p><i>Children will be able to:</i></p> <ul style="list-style-type: none"> <li>- Identify where to go for dental care/treatment.</li> <li>- Explain why visiting the dentist is important for health and wellbeing/haoura.</li> <li>- Identify that oral health care is free for all children until the age of 18 years.</li> </ul>
	<i>D3 Rights, Responsibilities and Laws;</i> <i>D4 People and the Environment</i> Contribute to and use simple guidelines and practices that promote physically and socially healthy classrooms, schools and local environments.	<p><i>Children will be able to:</i></p> <ul style="list-style-type: none"> <li>- Develop strategies to promote and support good oral health within the classroom and school setting.</li> </ul>

## Key messages for 5-12 year olds

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### *Brush teeth for two minutes, twice a day with fluoride toothpaste*

- Brush teeth for two minutes, in the morning after breakfast and especially at night before bed.
- Use a soft bristled toothbrush with a pea-sized amount of adult (full strength) fluoride toothpaste.
- Replace toothbrush every 3 months, or when the bristles begin to wear. A worn toothbrush can cause damage to gums.
- Children require assistance brushing their teeth until they have developed full wrist movement and flexibility, which is around 7 years old.
- Do not share toothbrushes between family members as this also shares decay-causing bacteria.



### *Spit, don't rinse after brushing*

- Fluoride is important for remineralisation to strengthen tooth enamel.
- Spit, don't rinse after brushing teeth especially at night, so the fluoride can keep working to protect teeth while sleeping.
- Fluoride toothpaste should be the last thing on teeth before going to bed, so avoid eating or drinking after brushing teeth at night.



### *Drink tap water and milk*

- Drink tap water or milk. Tap water is free, sugar-free and most water supplies within the Wellington Region are fluoridated to support good oral health.
- Drink tap water when playing sport. Children do not need sports drinks or flavoured waters. These are designed to support the energy requirements of high performance athletes.



### *Eat snacks with no added sugar*

- Choose sugar free foods.
- Avoid adding sugar when preparing food.
- Limit sugary foods (such as dried fruits, cereal and muesli bars, and sweetened yoghurts). If provided, these should be eaten only at main mealtimes.
- Fresh fruits are fine for snack time. Natural sugars are not as harmful to teeth as table sugar or added sugar.



### *FREE dental care for under 18's*

- Dental care is FREE from birth until a child's 18<sup>th</sup> birthday.
- For questions or concerns about a child's oral health call 0800 TALK TEETH (0800 825 583).

## About teeth

**Curriculum strand:** 2A1 Personal Growth and Development  
2A4 Personal Identity

**Key learning objective:**

- Identify the importance of teeth
- Identify the basic structure of teeth
- Identify the function of different types of teeth

### Why do we have teeth?

Jaw shape	Baby teeth are important for jaw shape and holding space for adult teeth to come through.
Eating	Teeth are important for biting and chewing food into smaller pieces to eat.
Talking	Teeth are important for making different sounds and words when we speak.
Smiling	Healthy teeth = healthy smiles.

### How many teeth do we have?

Humans have 20 baby (primary/deciduous) teeth and 32 adult (secondary/permanent) teeth  
Each tooth has a different shape for their different functions.

### What are the different types of teeth humans have?

Incisor, canine, premolar (secondary teeth only), molar

### Why do we have different types of teeth?



#### Incisor

Humans have 8 incisors.  
They are chisel shaped and are used for biting and cutting food.



#### Canine

Humans have 4 canines.  
They are pointed and sharp and are used for tearing and biting into food.



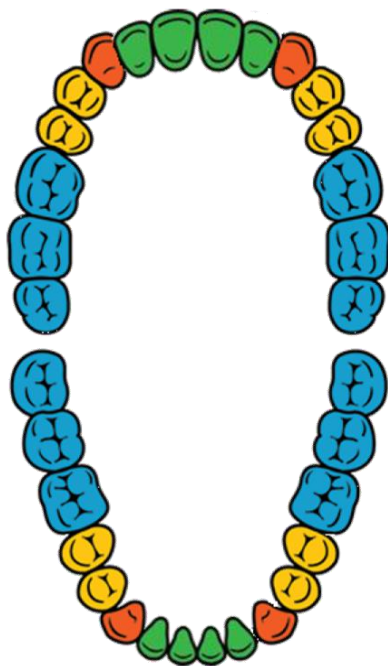
#### Premolar

Humans have 8 premolars.  
They are flat with 2 cusps and are used for tearing and grinding food.

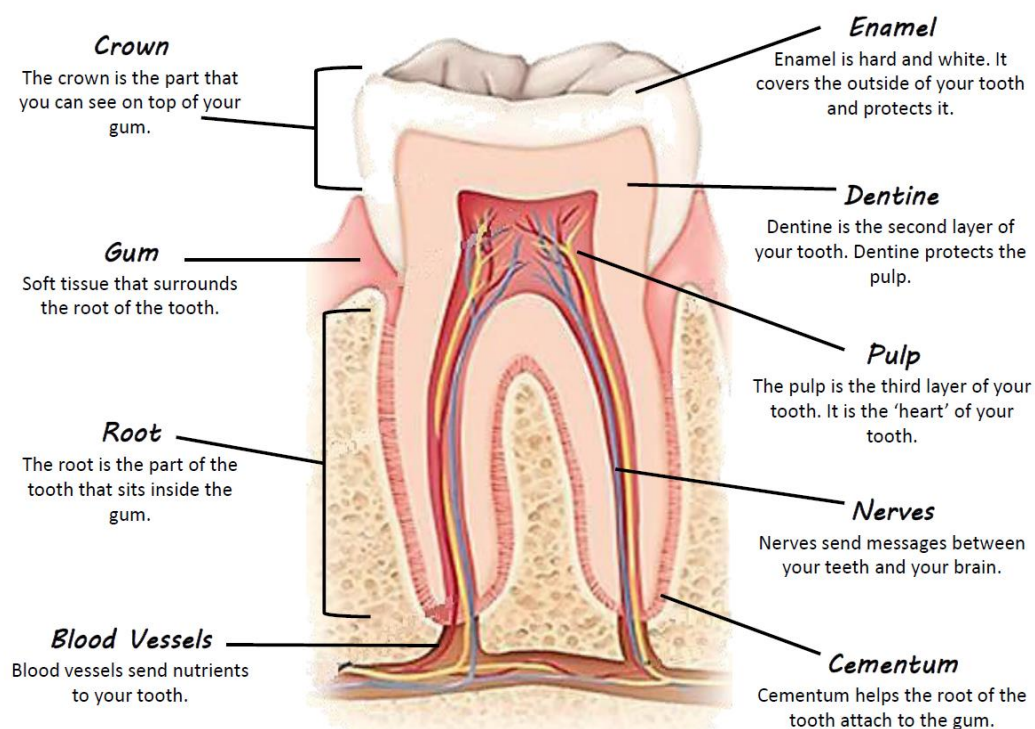


#### Molar

Humans have 12 molars. Some people only have 8 if they have had their wisdom teeth taken out by the dentist.  
They are flat with 4 cusps and are used for chewing and grinding food.



## What are the different parts of a tooth called?



Humans and animals have different types of teeth because they have different diets, and eat different types of food.

## What sort of teeth do different animals have?

CARNIVORE	HERBIVORE	ONMIVORE
<p>Carnivores are animals that eat only meat.</p> <p>They have long, pointy canines to catch their prey.</p> <p>They have strong, large molars crush and chew through meat.</p> <p>Lions, leopards, sharks, eagles, octopus, and crocodiles are carnivores.</p>	<p>Herbivores are animals that only eat plants.</p> <p>They have sharp incisors to cut and tear plants, leaves and grass.</p> <p>They have flat molars to grind and mash plants.</p> <p>Sheep, cows, rabbits, deer, kangaroos, hippopotamuses, horses and pandas are herbivores</p>	<p>Omnivores are animals that eat meat and plants.</p> <p>They have sharp incisors to cut food.</p> <p>They have pointed canines to tear food.</p> <p>They have large, flat molars to chew food into small pieces.</p> <p>Humans, bears, pigs, squirrels, rats and mice are omnivores.</p>



# Tooth Decay

**Curriculum strand:** 2A3 Safety Management  
2A4 Personal Identity

**Key learning objective:**

- Describe the process of tooth decay
- Understand the role of bacteria in the tooth decay process
- Identify the factors that lead to tooth decay
- Identify the impacts of behaviours that do not support good oral health

## How does tooth decay happen?

Our mouths are filled with a mixture of good and bad bacteria (germs). Germs like to hide in the deep pits on the top of our teeth, in the gaps between teeth, and along our gum lines.

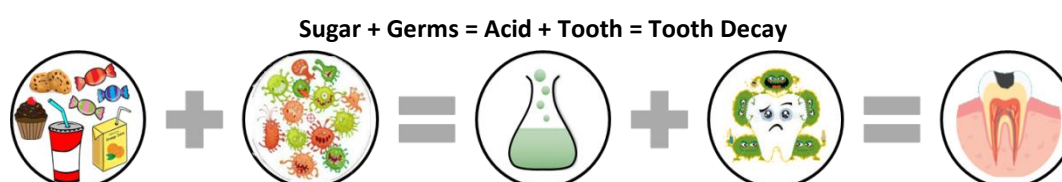
Tooth decay happens if we don't keep our teeth clean, and if we eat lots of sugary foods and drinks. The sugar from the food and drink we eat is also food for the bad germs in our mouth. The germs turn the sugary bits into acid and then attack tooth enamel (the outside layer of our teeth). If our teeth keep getting attacked by the germ's acid, our teeth become more and more damaged, and we can get holes (cavities) in our teeth.

Just like it is important to wash our hands to keep them clean, it is important to keep our mouths clean. We can do this by brushing our teeth for two minutes, twice a day (after breakfast, and especially before going to bed each night). This cleans away the leftover bits of food and bad germs in our mouth so they can't damage our teeth while we sleep.

## What does tooth decay look like?

Discuss the images included in this teaching guide

## How does sugar affect our teeth and oral health?



- **Rethink Your Drink**

Create a Sugary Drinks Kit using the flashcards provided. Fill plastic bags with different amounts of sugar in each drink.

- **Eggs-periment**

Put a hard boiled egg in a glass of fizzy drink for the day. Look at how the shell changes colour. Use a soft toothbrush with a smear of tooth paste to gently clean the egg.

- **Burnt Sugar**

Empty a bottle of fizzy drink into a pot. Heat on a stove and bring to a boil to let the liquid burn off. Observe the sticky substance that is left (sugar content of the fizzy drink).

## Keeping Teeth Healthy

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**Curriculum strand:** 2A1 Personal Growth and Development  
2A3 Safety Management  
2D2 Community Resources  
2D3 Rights, Responsibilities and Laws  
2D4 People and the Environment

**Key learning objectives:** - Identify and understand key strategies to prevent tooth decay  
- Identify and make healthy food choice for oral health and wellbeing  
- Identify resources available in the community that support oral health  
- Develop strategies to support oral health within the classroom and school settings

### 5 Tips to keep you smiling:

- Brush teeth with fluoride toothpaste for two minutes, twice a day
- Spit, don't rinse after brushing
- Drink tap water and milk
- Eat snacks with no added sugar
- FREE dental care for under 18s

See "Key Messages for 5-12 Year Olds". Discuss these with students, for example:

*Why do we brush our teeth?*

*What happens if we don't brush our teeth? What do our teeth feel like?*

*Why is it important not to rinse after brushing teeth?*

*Should you visit the dentist regularly or only when there is a problem? Why?*

*What is it like going to the dentist? Discuss experiences at the dentist*

*What types of food/drink can keep our teeth strong and healthy?*

*What types of food/drink weaken our teeth and can lead to tooth decay?*

### BarnaBee and the Miniature Mouth Monster Mission

Watch the interactive DVD.

In groups or individually, develop a Plan of Attack to prevent tooth decay.

Visit [www.beehealthy.org.nz](http://www.beehealthy.org.nz) for a range of interactive games.

## Functions of teeth

Use the words in the box to fill in the blanks to label and describe the types of teeth.

Incisor	Tearing	Grinding	Biting
Cutting	Molars	Premolar	Tearing
Grinding	Molar	Incisors	Canines
Premolars	Biting	Canine	Chewing

Humans have 8 \_\_\_\_\_. They are chisel shaped and used for \_\_\_\_\_ and \_\_\_\_\_ food.

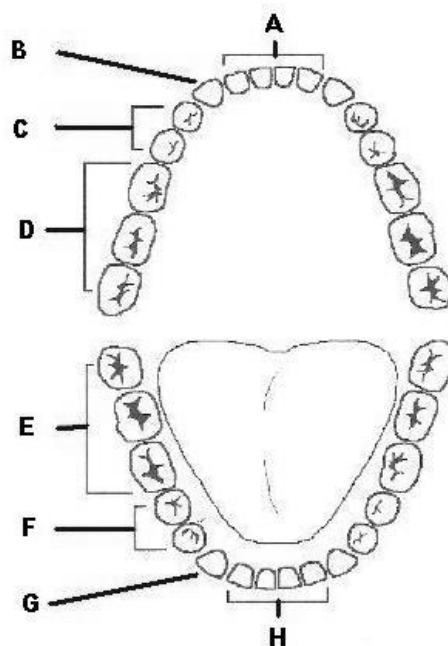
Humans have 4 \_\_\_\_\_. They are pointed and sharp and used for \_\_\_\_\_ and \_\_\_\_\_ into food.

Humans have 8 \_\_\_\_\_. They are flat with 2 cusps and are used for \_\_\_\_\_ and \_\_\_\_\_ food.

Humans have 12 \_\_\_\_\_. They are flat with 4 cusps and are used for \_\_\_\_\_ and grinding food.

Label the types of teeth

- A \_\_\_\_\_
- B \_\_\_\_\_
- C \_\_\_\_\_
- D \_\_\_\_\_
- E \_\_\_\_\_
- F \_\_\_\_\_
- G \_\_\_\_\_
- H \_\_\_\_\_



Premolar

Canine

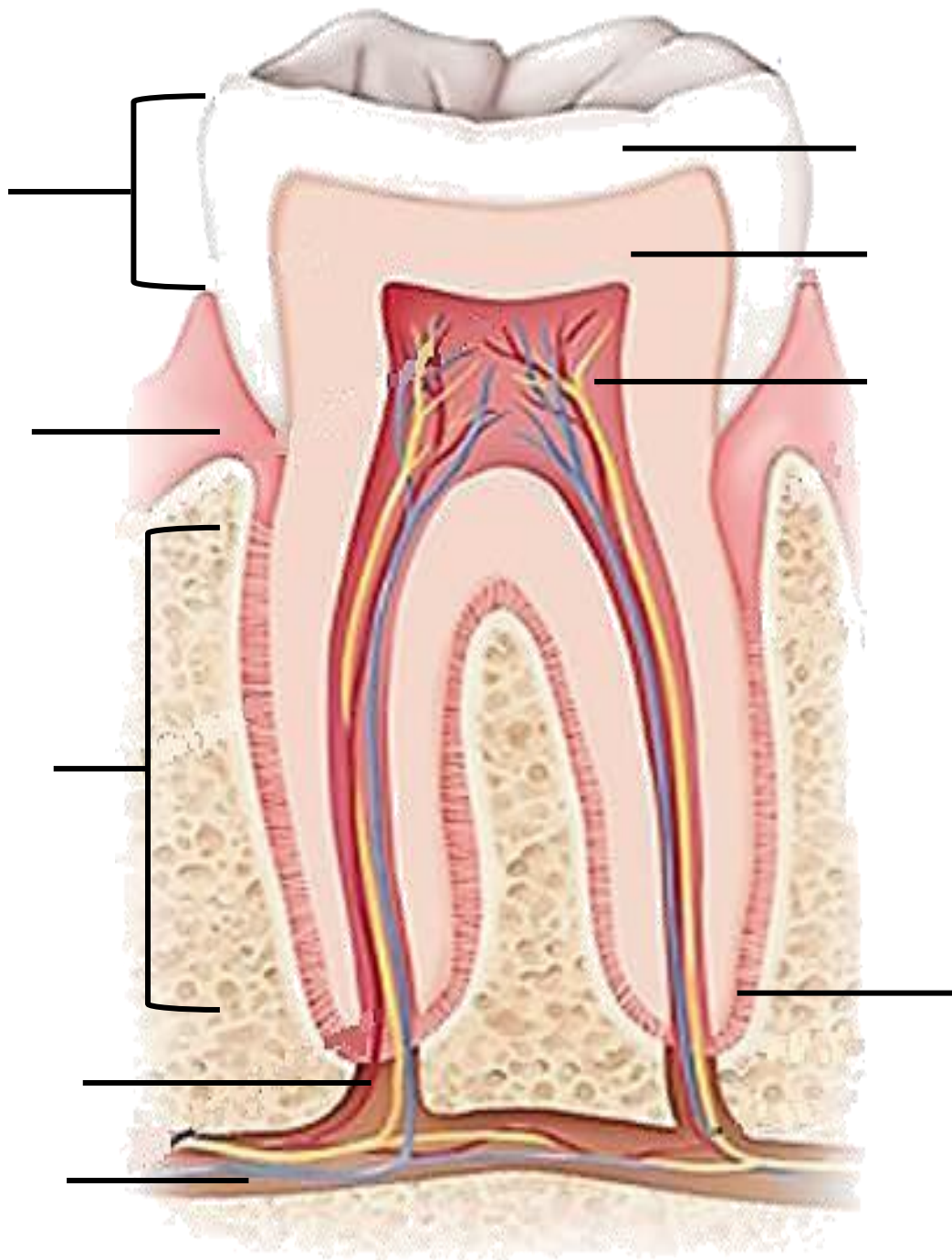
Incisor

Molar

## *Tooth labelling*

Correctly label the different parts of the tooth using the words in the box.

Dentine	Gum	Crown
Cementum	Pulp	Nerves
Blood vessels	Enamel	Root



## Definition match up

Match the dental word with its correct definition.

<b>Canine</b>	<b>Cementum</b>	<b>Crown</b>	<b>Dentine</b>	<b>Enamel</b>
<b>Fluoride</b>	<b>Incisor</b>	<b>Molar</b>	<b>Plaque</b>	<b>Premolar</b>
<b>Primary teeth</b>	<b>Pulp</b>	<b>Root</b>	<b>Secondary teeth</b>	<b>Tooth decay</b>
	1. Hard, white layer that covers the crown of the tooth			
	2. The middle layer of the tooth. It is covered by enamel			
	3. Thin layer covering the root of the tooth. This part of the tooth helps keep the tooth in the jaw.			
	4. The third layer of the tooth. It has nerves and blood vessels.			
	5. Tooth used for cutting/biting into food. Humans have 8 of these types of teeth.			
	6. Tooth used for tearing food. Humans have 4 of these types of teeth.			
	7. A permanent tooth which sits between the canine and molar teeth.			
	8. Tooth used for grinding food. Humans have 12 of these types of teeth.			
	9. The part of the tooth that sits on top of the gum that you can see.			
	10. The part of the tooth which sits inside the gum.			
	11. Bacteria + sugar = acid + tooth = decay.			
	12. Special ingredient in toothpaste that helps stop tooth decay.			
	13. The first set of teeth humans get. They are also called baby teeth.			
	14. The second set of teeth humans get. They are also called adult teeth.			
	15. A sticky, white layer that covers the outside of teeth.			

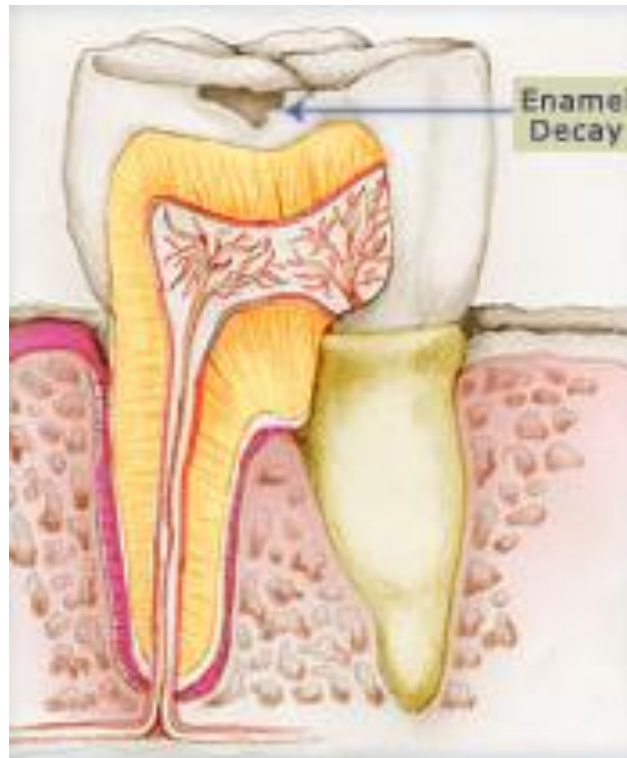
## What does tooth decay look like?



Chalky patches and enamel breakdown on the side of one of the front teeth.

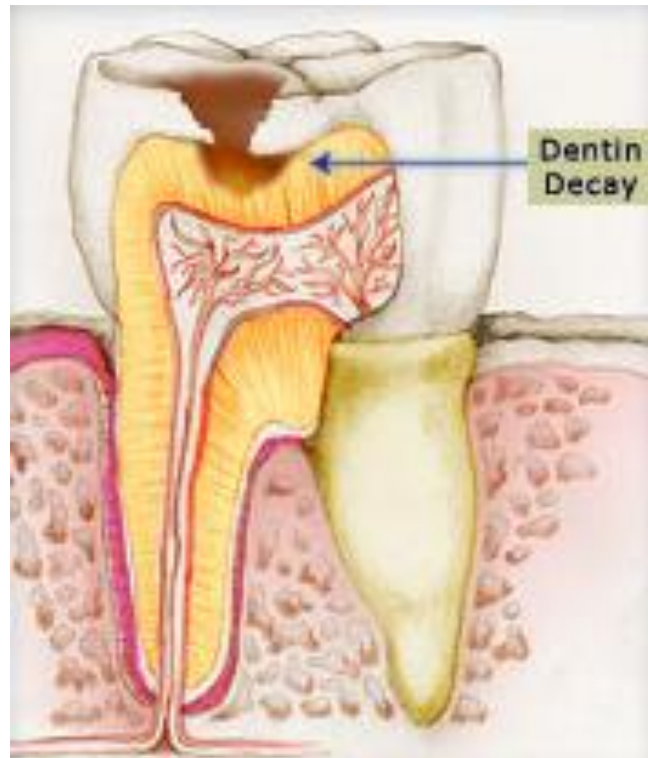






Clearly visible decayed front teeth

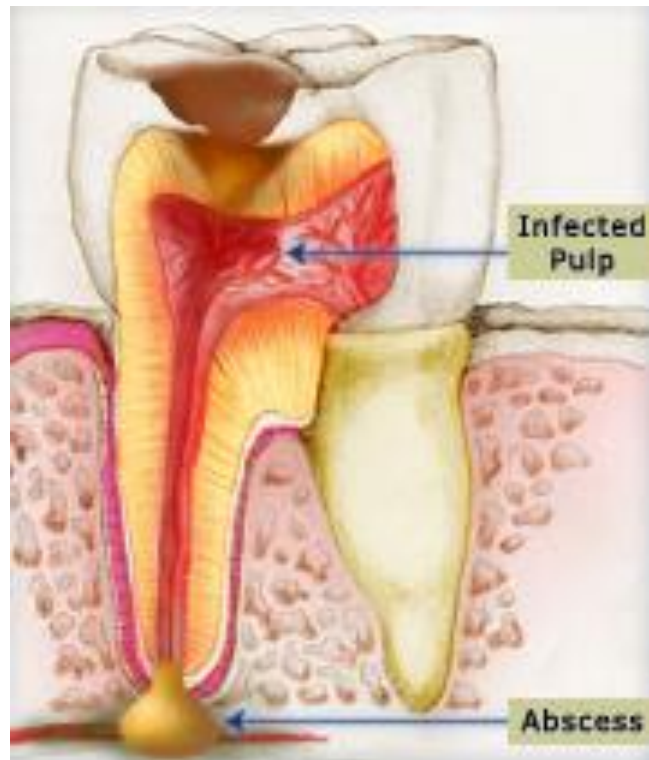




Well-advanced decay. Crowns on the top teeth are breaking down.







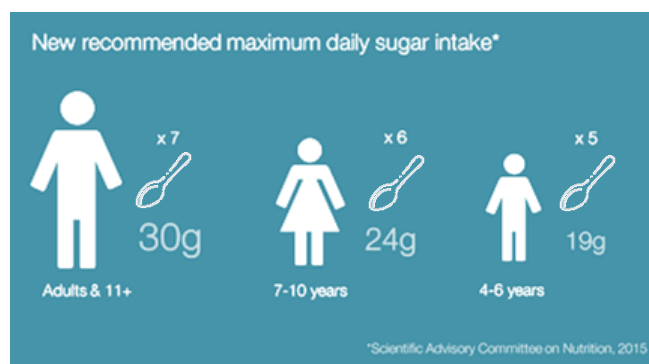
Deep decay in the lower back teeth (molars).



## Re-think Your Food and Drink

Recommendations say that adults (and children over 11) should be consuming no more than 30 grams (7 teaspoons) of sugar each day.

Children from 7-10 should consume no more than 24g (6 teaspoons) and children from 4-6 a 19g maximum (5 teaspoons).



Nutrition labels tell you how much sugar a food contains. Food that has 15g or more per 100g is considered high in sugar. Anything under 5g of total sugar per 100g is low.

### Sugar conversions: How to calculate the amount of sugar in packaged food/drinks

**1 teaspoons of sugar = 4 grams**



UNCLE TOBYS CHEWY Apricot			
Servings Per Pack: 6	Average Quantity	%DI*	Average Quantity
Serving Size: 31.3g (per Bar)	per Serving	per Serving	per 100g
Energy	550 kJ	6%	1770 kJ
Protein	1.9 g	4%	6.1 g
Fat-total	4.3 g	6%	13.7 g
- Saturated	1.4 g	6%	4.4 g
Carbohydrate	20.5 g	7%	65.4 g
- Sugars	6.7 g	7%	21.3 g
Dietary Fibre	2.0 g	7%	6.5 g
Sodium	4 mg	1%	13 mg

Sugar (grams) per serve = 6.7g (see nutrition label)  
 Sugar (teaspoons) per serve =  $6.7g / 4 = 1.7$  teaspoons per muesli bar

Sugar (grams) per 100g = 21.3g (see nutrition label)  
 Sugar (teaspoons) per 100g =  $21.3g / 4 = 5.3$  teaspoons per 100g

When comparing the amount of sugar in different products, use the per 100g calculation to compare "like for like".

- Practice reading the labels of different foods and drinks to work out how much sugar they have. Compare how much sugar is in your favourite drink compared to the World Health Organisation's recommendations for daily sugar intake.
- Print and cut out the flashcards from the template provided. These can be used to:
  - Create your own sugar kit: fill bags or empty drink bottles with the correct amount of sugar
  - Using the pictures only, put the cards in order from least to most sugar content.

Print pages 18-23 double-sided.  
Cut along the dotted lines to create flashcards.



Sprite 250ml



Raro 250ml glass



Vitamin Water 591ml



V Energy Drink 250ml









Powerade 750ml



Just Juice Fruit Drink 350ml

Print pages 18-23 double-sided.  
Cut along the dotted lines to create flashcards.

<p>Raro 250ml glass 5 teaspoons = 20 grams</p> 	<p>Sprite 250ml 5 teaspoons = 20 grams</p> 
<p>V Energy Drink 250ml 7 teaspoons = 28 grams</p> 	<p>Vitamin Water 591ml 7 teaspoons = 28 grams</p> 
<p>Just Juice Fruit Drink 350ml 10 teaspoons = 40 grams</p> 	<p>Powerade 750ml 11 teaspoons = 44 grams</p> 

Print pages 18-23 double-sided.  
Cut along the dotted lines to create flashcards.



Fanta 600ml



Lift Plus Energy Drink 250ml



e2 Energy Drink 800ml



Coca Cola 600ml




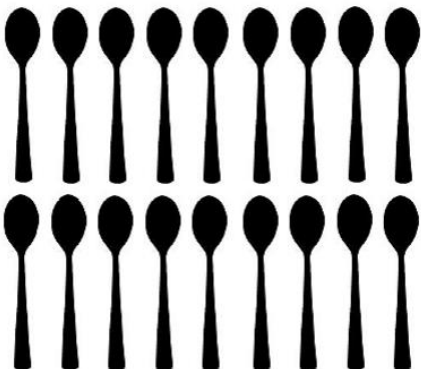
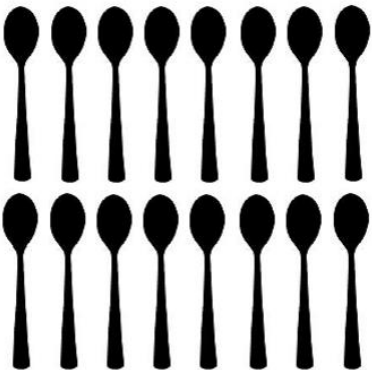



G Force 400ml



CalciYum 250ml



Print pages 18-23 double-sided.  
Cut along the dotted lines to create flashcards.

<p>Lift Plus Energy Drink 250ml 7 teaspoons = 28 grams</p> 	<p>Fanta 600ml 18 teaspoons = 72 grams</p> 
<p>Coca Cola 600ml 16 teaspoons = 64 grams</p> 	<p>e2 Energy Drink 800ml 20 teaspoons = 80 grams</p> 
<p>CalciYum 250ml 6 teaspoons = 24 grams</p> 	<p>G Force 400ml 10 teaspoons = 40 grams</p> 

Print pages 18-23 double-sided.  
Cut along the dotted lines to create flashcards.



Wave Chocolate Milk 600ml



Ribena Fruit Drink 330ml



Just Juice Fruit Juice 250ml

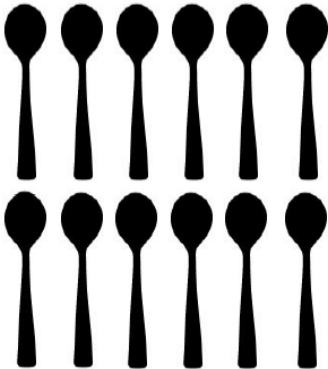
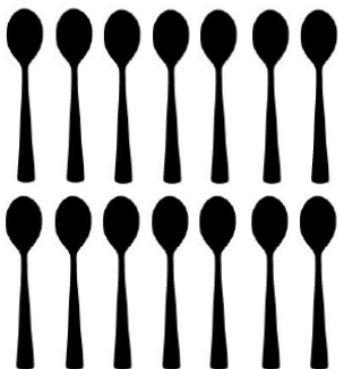





Mizone Sports Drink 750ml



Water

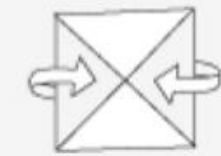
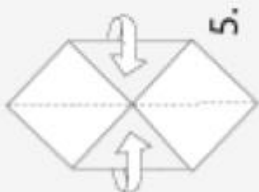
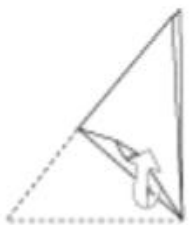
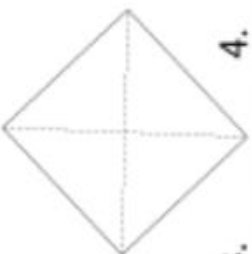
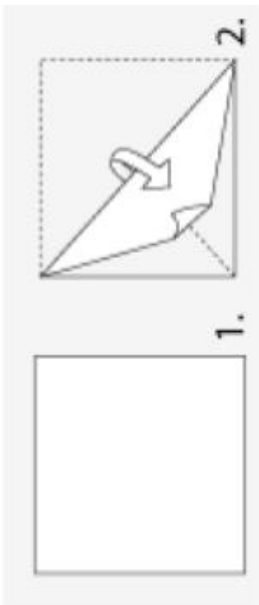
Print pages 18-23 double-sided.  
Cut along the dotted lines to create flashcards.

<p>Ribena Fruit Drink 330ml 12 teaspoons = 48g</p> 	<p>Wave Chocolate Milk 600ml 14 teaspoons = 56 grams</p> 
<p>Mizone Sports Drink 750ml 5 teaspoons = 20 grams</p> 	<p>Just Juice Fruit Juice 250ml 7 teaspoons = 28 grams</p> 
	<p>Water 0 teaspoons = 0 grams</p> 



# Create your own dental fortune teller





Cut out the square and fold using the instructions below:



flip over



**Bee Healthy**  
Regional Dental Service

 <p>7</p>	<p>Q. After brushing, _____ don't rinse.</p>	<p>5</p> <p>Q. Brush teeth for _____ minutes, _____ times a day</p>	 <p>1</p>
<p>3</p> <p>Q. Fill in the blanks. _____ 0800 _____</p>	<p>A. Spit. _____</p> <p>To keep the fluoride on your teeth to protect them long after brushing</p>	<p>A. 2 minutes 2 times a day</p> <p>Brush teeth every morning, &amp; every night</p>	<p>Q. A 600ml bottle of fizzy drink has about _____ teaspoons of sugar</p>
<p>4</p> <p>Q. Humans have _____ sets of teeth. _____ baby teeth and _____ adult teeth</p>	<p>A. 2 sets of teeth 20 baby teeth 32 adults teeth</p> <p>Mouth guard Water</p> <p>Protect your teeth on the sports field</p>	<p>A. Teeth are important for eating, talking, smiling and shaping our jaw.</p> <p>0 to 18 years</p> <p>Make sure you're enrolled! Enrol online <a href="http://www.beehealthy.org.nz">www.beehealthy.org.nz</a> or call 0800 TALK TEETH</p>	<p>Q. Dental care is FREE from _____ to _____ years</p>
 <p>8</p>	<p>Q. Wear a _____ and drink _____ when playing sport</p>	<p>Q. Why do we have teeth?</p>	 <p>6</p>

## *Useful Websites*

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**Bee Healthy Regional Dental Service**

[www.beehealthy.org.nz](http://www.beehealthy.org.nz)

**New Zealand Dental Association- Healthy Smiles**

[www.healthysmiles.org.nz](http://www.healthysmiles.org.nz)

**Let's Talk Teeth, Ministry of Health**

[www.health.govt.nz/your-health/healthy-living/teeth-and-gums/its-easy-protect-your-familys-smile](http://www.health.govt.nz/your-health/healthy-living/teeth-and-gums/its-easy-protect-your-familys-smile)

**Fighting Sugar in Soft Drinks (FIZZ)**

[www.fizz.org.nz](http://www.fizz.org.nz)

**Colgate- Bright Smiles, Bright Futures**

[www.colgate.com/app/BrightSmilesBrightFutures/US/EN/Program-Materials/For-Educators/Teachers.cvsp](http://www.colgate.com/app/BrightSmilesBrightFutures/US/EN/Program-Materials/For-Educators/Teachers.cvsp)

**World Health Organisation- Oral Health**

[www.who.int/oral\\_health/en](http://www.who.int/oral_health/en)

**Smiles 4 Miles – Dental Healthy Services Victoria**

[www.dhsv.org.au/oral-health-programs/smiles4miles](http://www.dhsv.org.au/oral-health-programs/smiles4miles)

**The British Dental Health Foundation**

[www.dentalhealth.org](http://www.dentalhealth.org)

## Teacher feedback form

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Thank you for taking the time to complete this feedback form.

Please return your completed form by either:

Email: neela.bhana@huttvalleydhsb.org.nz

Post: Early Intervention and Prevention Team

Bee Healthy Regional Dental Service

PO Box 31 907

Lower Hutt 5040

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**1. What year level do you teach? (please circle)**

New entrants/Year 1

Year 3

Year 5

Year 7

Year 2

Year 4

Year 6

Year 8

**2. Has oral health been discussed previously in class? If so, what did this cover?**

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**3. Are the supporting resources provided in this toolkit appropriate for your class?**

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**4. Did you feel confident talking about oral health using this teaching guide?**

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**5. Are there any improvements which could be made to this teaching guide?**

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**6. Other comments.**

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Regional Dental Service



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