

Dental Health Education

(2003)

A Teacher Resource
To Support Dental Health Education
for Kindergarten to Grade 5



Table of Contents

Introduction	1	Grade Three – 'Healthy Foods'	36
Goals	1	Unit Overview	37
Rationale for Dental Health	1	What is a Good Snack?	38
Principles of Dental Health	1	Why is it a Good Snack?	39
Resources	2	Taking Action	41
Acknowledgements	2	Activities	43-44
Contact List	3	Teacher Information Page	45
		Sugar Content of Foods	46
Kindergarten – 'Healthy Teeth'	4		
Unit Overview	5	Grade Four – 'Sports Injuries'	48
Basic Functions of Teeth	6	Unit Overview	49
Toothbrushing	7	What Causes Sports Injuries	50
Making a Commitment	9	Preventing Sports Injuries	51
Teacher Information Page	10	Taking Action	52
Activities	11-12	Teacher Information Page	53
		Teacher Resources	54-55
Grade One - 'Healthy Teeth'	13		
Unit Overview	14	Grade Five - 'Dental Problems'	56
Brushing & Flossing	15	Unit Overview	57
New Teeth	17	Exploring Dental Problems	58
Making a Commitment	19	Preventing Dental Problems	59
Teacher Information Page	20	Taking Action	62
Activities	21-26	Teacher Resources	64-68
Grade Two - 'Safety'	27		
Unit Overview	28		
What Causes Injuries	29		
Preventing Injuries	30		
Taking Action	31		
Teacher Resources	32-35		
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Introduction

This dental health resource is designated to support health education for Kindergarten to Grade 5. The format is similar to sample units included in Health Education: *A Curriculum Guide for the Elementary Level (1998)* and follows the Health Action Model. Teachers should find that the resource could easily become an integral part of their health education activities.

Goals

Similar to the broad goals of health education, the goals of dental health education for students are to:

- acquire and evaluate dental health information.
- make knowledgeable decisions to improve their dental health.
- apply their decisions to improve their dental health and to ultimately improve their mental and social well-being.

Rationale for Dental Health Education

Preventative dental health during childhood is a vital part of good overall health. It builds the foundation for speech development and ensures proper chewing for adequate nutrition. Good preventive care also avoids the necessity of costly treatment later in life and is a key requirement for an attractive and winning smile.

Principles of Dental Health

Toothbrushing, flossing, use of fluorides and sealants, proper nutrition, and regular dental visits encompass a routine to maintain a healthy mouth and a healthy body. The following points may be useful for the teacher to keep in mind while working with students in the area of dental health:

- Brushing the teeth, gums and tongue with a soft bristled toothbrush twice a day, morning and night, is recommended.
- Daily flossing removes plaque and food particles from between teeth and under the gum line. This helps prevent gum disease (periodontal disease).
- The Canadian Dental Association recommends using a pea-sized amount of fluoride toothpaste. Swallowing toothpaste should be discouraged.
- Appropriate fluorides should be used. Fluoride is a natural substance that is essential for proper tooth and bone formation. Drinking water with the right amount of fluoride is the most effective and least expensive way to prevent tooth decay. Fluoride helps to strengthen tooth enamel. Individuals may access fluoride through their drinking water, fluoride toothpaste, fluoride varnish, fluoride mouth rinses, and fluoride treatments at the dental office.
- Dental sealants are an effective way to prevent tooth decay. A sealant is a plastic, protective coating that is applied to the chewing surface of back teeth, where plaque and food particles become trapped and may cause tooth decay. The teeth that benefit from sealants are the permanent six-year molars, permanent twelve-year molars, wisdom teeth and premolars.
- Children and adults should eat healthy foods as outlined in *Canada's Food Guide to Healthy Eating*. This involves limiting sugar snacks. Sugar-containing foods are best eaten at the end of a meal when there is more saliva in the mouth to buffer the decay causing acids. The more often sugar is consumed throughout the day and the stickier the sugar food is, the greater the risk for developing tooth decay.
- Visits to a dentist should occur at least once a year. The dental professional will ensure that any dental problems are corrected early.

A healthy mouth will improve one's general health and will enhance self-esteem.

Resources

A number of resources are identified throughout this dental health guide. Many are available from the dental health educator, who works with your health region. The telephone numbers and information listed on the next page may be used by teachers who would like to borrow resources or would like to contact a dental health educator to visit the class.

Acknowledgements

This document was compiled by the 2001 sub-committee of the Interdistrict Dental Health Educators Working Group of Saskatchewan. Its members are:

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DENTAL HEALTH EDUCATORS

Contact List for Resources or Presentations

Community	Address	Postal Code	Phone #	Fax #
Assiniboia	Box 1120	S0H 0B0	642-4380	642-9459
Carlyle	Box 670	S0C 0R0	453-6307	453-6799
Estevan	St. Joseph's Hospital Box 5000		637-3644	634-2015
Fort Qu-Appelle	Box 1819	S0G 1S0	332-3313	332-1226
Humboldt	Box 1930 (231 Main Street)	S0K 2A0	682-4075	682-4417
LaRonge (Athabasca, Keewatin Yatthé & Mamawetan)	Box 6000	S0J 1L0	425-8521	425-8550
Meadow Lake	#9 – 711 Centre Street	S9X 1E6	236-1575	236-4974
Melfort	Box 6500	S0E 1A0	752-6310	752-1776
Moose Jaw	107 – 110 Ominica Street West	S6H 6V2	691-1535	691-1523
Nipawin	Box 389	S0E 1E0	862-7236	862-0763
North Battleford	#204 – 1146 102 nd Street	S9A 1E9		
Prince Albert	Box 5700	S6V 7V6	765-6502	765-6536
Regina	M53 – 2110 Hamilton Street		766-7902	766-7798
Rosetown	Box 1300	S0L 2V0	882-4654	882-6474
Saskatoon #101 – 310 Idylwyld Drive North		S7L 0Z2	655-4462	655-4474
Swift Current	350 Cheadle Street West	S9H 4G3	778-5299	778-5408
Yorkton	72 Smith Street East	S3N 2Y4	786-0600	786-0620

Unit Overview

The format of this unit is similar to that of the sample units found in Health Education: A Curriculum Guide for the Elementary Level (1998). Essentially, the unit follows the Decision-making Process, which is described in the curriculum. Because students in Kindergarten may not be familiar with this process, the teacher should feel free to adapt the activities to meet the needs of the students and to fit into the Kindergarten program. Strand: A healthy body Grade: Kindergarten

Level	Steps	Activities
Level A	1. Think.	• Learn about the functions of the teeth.
Stop!	2. Research.	Learn about plaque and how brushing can get rid of it.
Level B Explore	3. Look at options and consequences.4. Choose an option.	 Practice brushing teeth. Discuss consequences of brushing and not brushing. Make a commitment to brush twice a day.
Level C Go!	5. Design and carry out an action plan.6. Examine the results. Revise as needed.	 Make a commitment to keep a record of brushing for 3-5 days. Discuss the results.

Strand: A healthy body	Grade: Kindergarten
Topic: Healthy teeth	Activity: Basic Function of Teeth
Decision-making Process:	Resources
• Stop!	(Storybook) A Walk With Charlie Chew*
	* This resource may be available from your dental health educator.
Foundational Objectives	Learning Objectives Students will:
 Students will increase their knowledge of their bodies and how to care for them. 	• identify the basic functions of teeth. • describe what plaque is.

- Discuss with students the basic functions of teeth: chewing, speaking, appearance. Note that:
 - Teeth are important in forming certain sounds (th, s, f). Demonstrate and have students practice sounds by pronouncing words such as sister, food, tooth. Note the positions of the tongue in relation to the teeth and lips.
 - Teeth give shape to the face and enhance appearance when smiling.
 - Teeth are essential for chewing food properly.
- Read and discuss A Walk With Charlie Chew.
- Discuss the formation of plaque in simple terms. It is defined as a sticky film containing germs and food particles. Plaque sticks to our teeth, gums, and tongue causing cavities, gum disease, and bad breath.
- Emphasize to students that plaque needs to be cleaned off teeth, gums, and tongue every day.

Strand: A healthy body	Grade: Kindergarten
Topic: Healthy teeth	Activity: Brushing Teeth
Decision-making Process: • Explore	Resources Large Mouth model and toothbrush* Toothbrush(es) (Video) Brushing Magic with Dudley and Dee Dee – 5:53 minutes: (Pamphlet) Charlie Chew Says 'Brush and Floss Everyday'* * These resources may be available from your dental health educator.
Foundational Objectives • Students will increase their skills to make health-enhancing decisions.	 Learning Objectives Students will: develop basic toothbrushing skills explore the consequences of brushing and not brushing their teeth

- Show and discuss the video, *Brushing Magic with Dudley and Dee Dee*. Distribute and discuss the pamphlet, *Charlie Chew Says 'Brush and Floss Every Day'*.
- Demonstrate the "scrub method" tooth brushing technique on a mouth model:
 - hold the toothbrush against the teeth
 - move the brush back and forth several times with short strokes, cleaning all surfaces of teeth outsides, insides, front and back
 - brush the tongue to help remove bacteria and freshen the breath.
- Have students take turns practicing the brushing techniques on the large mouth model. Talk about removing food particles and plaque.
- Discuss different types of toothbrushes (soft, medium and hard bristles). Show the advantages of using a soft-bristled toothbrush (e.g. gentler on the gums).
- Discuss the importance of brushing twice a day. Ask students what happens at night or during the day when plaque and food particles are left on the teeth. Students should be able to come up with consequences of not brushing cavities and the requirement of fillings, bad breath, stained teeth, etc. They should also be able to suggest that the consequences of brushing may include healthy teeth, few or no cavities, white teeth, etc.

- Remind students to use a pea-sized amount of fluoride toothpaste as recommended by The Canadian Dental Association and that toothpaste should not be swallowed.
- Teach students the *Your Toothbrush* song. Have them sing it at various times of the school day (e.g., getting ready for dismissal). Have students suggest actions to accompany the words.
- While flossing the mouth model, discuss the importance of using dental floss. Have children point out the places floss can reach that the toothbrush cannot. Note that children at this age will require a parent or caregiver to floss their teeth daily. It is important, though, for them to know what floss is and its function.
- It may be appropriate to have students take turns flossing the teeth of the model.

Strand: A healthy body	Grade: Kindergarten
Topic: Healthy teeth	Activity: Make a commitment
Decision-making Process:	Resources
• Go!	Enclosed activity
Foundational Objectives	Learning Objectives
 Students will practice health-enhancing 	Students will:
behaviour.	 make a commitment to brush regularly.
	• make a commitment to keep a record for 3
	to 5 days.

- Review steps for brushing teeth.
- Show students the *Caring for My Teeth* chart. Ask them to keep track of their brushing habits for 3 to 5 days. Provide time each morning for them to fill in their chart.
- Ask students to identify the people who will help remind them to brush regularly.
- The teacher may wish to send the charts home with the students along with a brief note to the students' caregivers. The note may be as follows:

Dear Parents/Caregivers,

The Kindergarten students are learning how to brush their teeth and the importance of brushing regularly. Your child has agreed to keep a record of her/his brushing for 3 to 5 days. Please assist your child with effective brushing techniques as well as keeping a record for 3-5 days, from (date – date). Please remind your child to bring the chart back to school on (date).

If you have any questions or concerns about this or any other school-related issues, please feel free to contact me.

Thank you for your assistance.

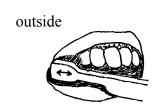
Yours truly, (Teacher/telephone no.)

• When the charts come back, discuss with the students how their mouths feel and how their teeth look when they brush regularly and how they might feel/look if they did not.

Teacher Information Page

Brushing and Flossing Teeth

The following diagrams may assist in understanding brushing techniques:

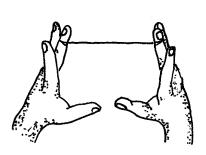


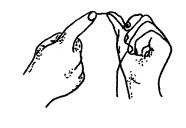


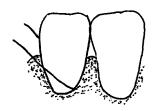


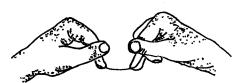
Brushing the teeth will clean the inside, the outside, and the tops of the teeth. Dental floss should be used daily to remove the plaque from between teeth and under the gum line. Use the following procedure:

- Break off a piece of dental floss about 1/2 m long.
- Wind most of the floss around the middle finger of one hand. Wind the rest around the same finger of the other hand.
- Hold the floss tightly between the fingers and work it slowly between the teeth and down to the gum line using a gentle back and forth motion.
- When the floss is at the gum line curve it around the tooth and move the floss up and down against the side of the tooth to remove the plaque.









Caring for My Teeth

Colour the sun when you brush in the morning. Colour the moon when you brush before bedtime.

	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Brush: Week 1	The state of the s	The state of the s	E WY	TWY TWY	The state of the s	The state of the s	ZWY /
Brush: Week 2	TAMPA /	TWY TWY	TWY TWY	The state of the s	Emin /	The state of the s	E WY

Colour the moon when you brush before bedtime.

Name:

I'm your friendly toothbrush
Long and straight
I will help you clean up
What you ate
When I get used often
Hear me sing
A healthy smile
Is a super thing!

Grade 1 Dental Health Program

Unit Overview

The format of this unit is similar to that of the sample units found in Health Education: *A Curriculum Guide for the Elementary Level (1998)*. Essentially, the unit follows the Decision-making Process, similar to that in the curriculum.

Level	Steps	Activities
Level A	7. Think.	• Review proper techniques of brushing teeth
Stop!	8. Research.	Explore the necessity of flossing.Address tooth eruption as a positive experience.
Level B Explore	9. Look at options and consequences.	• Consider the advantages of brushing and flossing for both sets of teeth, using effective techniques.
	10. Choose an option.	• Choose an activity to explore tooth eruption.
Level C Go!	11. Design and carry out an action plan.12. Examine the results. Revise as needed.	 Make a commitment to track tooth brushing habits. Participate in an activity dealing with tooth eruption. Evaluate level of participation and success of projects.

Strand: A healthy body	Grade: 1
Topic: Healthy teeth	Activity: Brushing and flossing
Decision-making Process: • Stop	Resources Large mouth model and toothbrush* Disclosing tablets* Dental floss* (Video) Goofy Over Dental Health 13 min.* (Video) Toothbrushing With Charlie Brown 4:53 min. * * These resources may be available from your dental health educator.
Foundational Objectives • Students will increase their knowledge of their bodies and how to care for them.	 Learning Objectives Students will: demonstrate effective tooth brushing techniques understand the importance of flossing in addition to brushing

- Review with students the basic functions of teeth: chewing, speaking, appearance. Note that:
 - teeth are important in forming certain sounds (th, s, f). Demonstrate and have students practice sounds by pronouncing words such as sister, food, tooth. Note the positions of the tongue in relation to the teeth and lips.
- teeth give shape to the face and enhance appearance when smiling.
- teeth are essential for chewing food.
- Demonstrate the 'Bass' toothbrushing techniques on the large mouth model. (See information page.) Discuss the advantages of using a soft toothbrush (is less likely to damage gums) and brushing twice a day.
- Remind students to use a pea-sized amount of fluoride toothpaste as recommended by The Canadian Dental Association. Swallowing toothpaste should be discouraged.
- Display and learn the song, *Your Toothbrush*. Sing it to the tune of I'm a Little Teapot. (See last page of Kindergarten program.) Have students suggest actions to reflect the words. (Note that students may have learned this song in Kindergarten.)
- Explain plaque and the plaque chain.

Note: Plaque is a sticky film containing germs and food particles. Plaque sticks to our teeth, gums, and tongue causing cavities, gum disease, and bad breath. Plaque uses the sugar from the foods we eat and drink to produce harmful acids. This acid attacks the tooth to cause cavities.

- Have children chew disclosing tablets (if available) to stain the plaque on the teeth so it is visible. Children should understand that although brushing will remove much of the plaque, a brush cannot remove all plaque and food particles from between the teeth.
- Discuss the importance of dental floss while demonstrating on a mouth model. Note that children at this age will require a parent or caregiver to floss their teeth daily. It is important, though, for children of this age to know what floss is and its function.
- If the videos are available, show and discuss them.

Strand: Self-esteem	Grade: 1
Topic: New teeth	Activity: Dealing positively with the loss
	of primary teeth
Decision-making Process: • Explore	Resources (Video) Adventures of Wiggly Tooth: 8 min. * (Video) Arthur's Tooth: 10 min. * *These resources may be available from your dental health educator
Foundational Objectives • Students will increase their skills to make health-enhancing decisions.	Learning Objectives Students will: • participate in activities that will lead to a greater understanding and appreciation of the process of tooth eruption.

- Ask students whether they have lost some teeth. Discuss why children lose their first set of teeth. Relate it to the process of growth. For example, have students imagine what babies would look like with a full set of adult teeth
- Explain the basic concepts of tooth eruption. Note: Everyone has 2 sets of teeth: 20 primary (baby) and 32 permanent (adult) teeth. Have students work with "My New Teeth" chart.

Note that the most common permanent teeth to erupt at age 6 are the permanent front teeth and the permanent 6-year molars. Teeth erupt in different sizes, shapes and shades of white, gray or yellow. Everyone is different with loss and growth of new teeth.

- Show and discuss the videos, if available.
- Teach children "The Wiggly Tooth" song, sung to the tune of "Farmer in the Dell." Have children suggest movements to accompany the words.
- Display and read "My Lost Tooth" poem. The teacher and students may wish to write additional verses, changing the third line to reflect students' experiences.
- Discuss with students the importance of caring for their baby teeth. Point out that the health of those teeth may be directly related to the health of their permanent teeth.
- The teacher and students may choose to participate in one or some of the activities suggested or design an activity of their own.

Suggested Activities:

- 1. Create a large paper tooth for every month of the school year. You may call the display "The Lost Tooth Club." Each time a student loses a tooth, write the student's name on the tooth representing the month in which the tooth was lost. At the end of each month, calculate the number of teeth that were lost. At the end of the year, calculate the grand total of teeth lost for your class for the year. Variation: One tooth with each student's name may be put on a bulletin board display. As children lose their teeth, they may place a check mark or sticker in their teeth.
- 2. Journal Writing Activity: Losing a baby tooth. This could be a class project or students might work in pairs or with older students, who could help with the actual writing. Students may consider telling about:
 - How it feels as the tooth loosens and comes out.
 - What they do with the tooth.
 - How the gap feels.
 - What people say about their missing teeth.
 - The Tooth Fairy and the practice of placing the tooth under your pillow. (*Teacher note: Some families may not approve of this practice.*)
 - Looking forward to a brand new tooth.
 - How a healthy baby tooth will probably lead to a healthy permanent tooth.
- 3. Students may be paired to count each other's teeth. It may be interesting to do this activity early in the school year and at the end of the school year. Students will be able to see the changes that are occurring. A bar graph may also be established to allow students to see the changes occurring on a monthly basis.
- 4. You may distribute copies of the *Trade A Tooth Club* sheet. Children may become members and receive free dental information and products. This may be done individually or as a class project. It is very exciting for children to receive letters addressed to them.

Note: Whatever the activity, students should realize the following:

- The loss of teeth is a natural process and a milestone of growing up. It happens to everyone. Although it affects a child's appearance, the effect is temporary. It is not necessary, for example, for children to cover their mouths when they smile. Children should be proud of losing a tooth. It means they are growing up.
- The loss of a tooth may feel very strange and may be temporarily inconvenient.
- A brand new tooth will grow in place of the lost one.
- Although baby teeth are temporary, it is very important to take good care of them. Their health may influence the health of the new permanent teeth.

Strand: A healthy body	Grade: 1
Topic: Making a commitment	Activity: Tracking personal tooth
	brushing
Decision-making Process:	Resources
• Go!	Activity pages enclosed
Foundational Objectives	Learning Objectives
 Students will develop their ability to make a commitment and follow through with it. 	Students will:
To the second se	track their daily tooth brushing.appreciate that care of baby teeth may have life long consequences

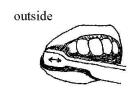
- In addition to the activities suggested, the teacher may choose to have students track their tooth brushing habits. This may be done as a class commitment using the *Class Tooth Brushing Record* or individually using *I Brush My Teeth Regularly*.
- During the days that students are keeping track of their brushing, the teacher may make a point of referring to students' beautiful smiles, making mention of how clean their teeth look, and have students sing the songs they learned. Generally, the teacher may do whatever it takes to remind students to brush and to make the project a positive experience.
- Have students make a commitment, with the support of caregivers, to model twice a day brushing for younger siblings.
- Evaluate students on the basis of participation.

Teacher Information Page

Brushing and Flossing

The "Bass" toothbrushing technique involves the following:

- Hold the toothbrush against the teeth with bristles at a 45° angle to the gum line.
- Move the brush back and forth several times with short strokes.





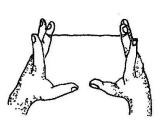


Brushing the tongue will help to remove bacteria and freshen the breath. Recommend using a soft-bristled toothbrush and brush at least twice a day – morning and bedtime. Use only a peasized amount of fluoride toothpaste recommended by the Canadian Dental Association. Swallowing toothpaste is discouraged.

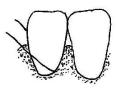
Dental floss is used daily to remove the plaque from between teeth and under the gum line. The following procedure is recommended:

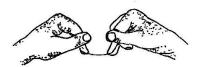
- Break off a piece of dental floss about ½ m long.
- Wind most of the floss around the middle finger of one hand. Wind the rest around the same finger of the other hand.
- Hold the floss tightly between the fingers and work it slowly between the teeth and down to the gum line using a gentle back and forth motion.
- When the floss is at the gum line, curve it around the tooth and move the floss up and down against the side of the tooth to remove the plaque.
- Repeat this process on each tooth, using a clean section of the floss.

Note that children at this age will require a parent or caregiver to floss their teeth daily. It is important though, for children of this age to know what floss is and its function.

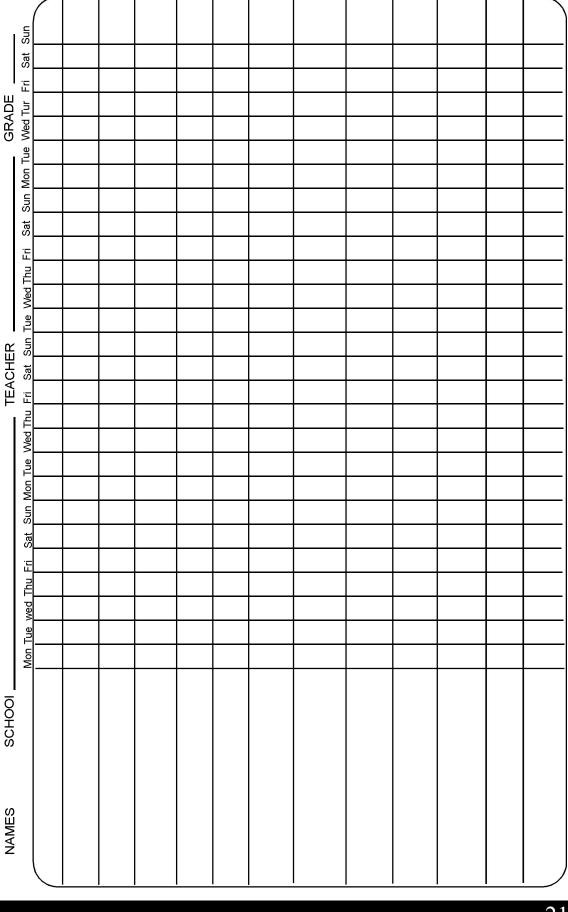






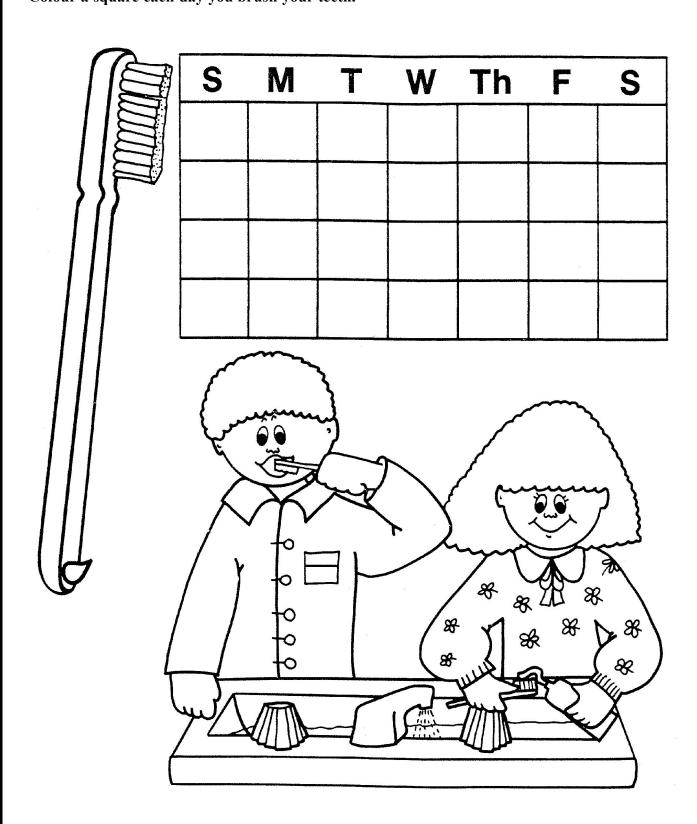


Class Toothbrushing Record





Name						
Colour	a square	each day	VOII	brush	vour	teeth.



My New Teeth

Colour your baby teeth blue.

Draw an X on a tooth that fell out.

Colour your new teeth red.

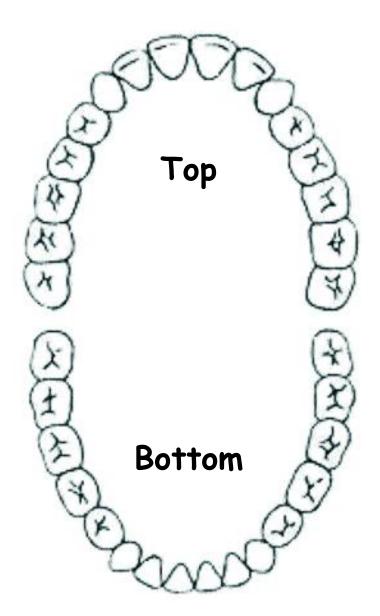
If you have new teeth at the back, draw them in.

Count your teeth

Baby teeth _____

New teeth _____

Spaces _____



The Wiggly Tooth Song

(Tune: The Farmer in the Dell)

I have a wiggly tooth,
I have a wiggly tooth,
Wiggle, waggle, wiggle, waggle
I have a wiggly tooth.

My wiggly tooth fell out, ...
A new tooth's growing there,
A new tooth's growing there,
Bigger, bigger, bigger, bigger,
A new tooth's growing there.

I can wiggle it with my tongue, I can wiggle it with my tongue, Wiggle, waggle, wiggle, waggle, I can wiggle it with my tongue

I can wiggle it to the left

I can wiggle it to the right ...

Helen Balanoff



Dental Poems

(Poems may be sung to the tune of I'm a Little Teapot.)

Your Toothbrush

I'm your friendly toothbrush soft, long and straight I will help you clean up what you ate When I get used often, hear me sing A healthy smile is a super thing.

My Lost Tooth

I lost a little tooth
Just the other night
I lost it in an apple when I went to take a bite
I hope I get another tooth
To take my old tooth's place
Because my tongue feels funny
When it hits the empty space.

Grade 2 Dental Health Program

Unit Overview

The format of this unit is similar to that of the sample units found in Health Education: *A Curriculum Guide for the Elementary Level (1998)*. Essentially, the unit follows the Decision-making Process, similar to that in the curriculum.

Level	Steps	Activities
Level A Stop!	13. Think.14. Research.	 List activities and behaviours at school and at home that may affect our teeth. Explore what to do in the event of injuries.
Level B Explore	15. Look at options and consequences.16. Choose an option.	 Describe how home and school activities can be made safe for our teeth. Identify ways to keep teeth safe.
Level C Go!	17. Design and carry out an action plan.18. Examine the results. Revise as needed.	 Describe how students play and work safely at home and at school. Role-play dental emergency scenarios.

Strand: Safaty	Grade: 2
Strand: Safety Topic: Dental safety at home and school	Activity: Playing and working safely at
•	home and at school
Decision-making Process: • Stop	Resources
Foundational Objectives • Students will increase their knowledge of their bodies and how to care for them.	 Learning Objectives Students will: identify activities that may pose a risk for their teeth. discuss what to do in the event of a dental emergency.

• Discuss dental safety as it relates to the playground, the gym, and the classroom. Write the following title on the chalkboard: **Risking my teeth**. Brainstorm and list activities and practices that might cause injuries to teeth. Examples may include rough play that involves pushing and shoving, biting or chewing on hard objects, practices on climbing apparatus, behaviour at water fountains, playing on swings, opening bottles or cutting string or opening a package with your teeth, clutter where you walk, riding a bike, skateboarding, using equipment such as hockey sticks

Teacher Note: If there are a number of students in the class who are alone after school, this is a situation that may be highlighted for safe practices. Also, the teacher may wish to expand the topic of dental safety to more general safe practices in the home or anytime outside of school.

Strand: Safety	Grade: 2
Topic: Preventing injuries at home and	Activity: Explore safety at home and
school	school
Decision-making Process: • Explore	Resources Chart paper Relevant safety equipment such as bike helmet, mouthguard
Foundational Objectives • Students will increase their skills in making health-enhancing decisions.	Learning Objectives Students will: • participate in activities that will lead to a greater understanding and appreciation of the process of tooth eruption.

• Have students work with partners or in small groups. Give each small group chart paper with two columns headed with titles: **Activities with risks** and **Keeping teeth safe**. Have them choose a few activities listed on the chalkboard that they personally participate in that may represent some danger to their teeth. Then have them identify ways to avoid injuries to teeth. To express their ideas, students may write or draw pictures in the columns.

Note: The teacher may point out to students that some unsafe practices should be avoided (e.g., pushing at the water fountain). However, other risky activities need not be avoided if safety precautions are taken. (For example, wearing a helmet when riding a bicycle, standing back from swings, taking turns on some equipment.) If mouthguards and helmets are available, discuss when and how they should be used.

- When the students have completed their charts, have each group present its ideas to the class.
- Display the charts on a bulletin board or on a wall in the hallway amid images related to healthy teeth (e.g., happy smiles, toothbrushes).
- Point out to students that no matter how we try to play safe, accidents sometimes happen.

 Discuss what can be done in the event of a dental emergency. Ask the class what they would do if a friend chipped a permanent front tooth or knocked one out completely.
 - <u>Chipped permanent tooth</u>: Clean area with warm water. Place cool compresses to lip to reduce swelling. See a dentist immediately.
 - <u>Knocked out permanent tooth</u>: Find tooth. Rinse gently but DO NOT SCRUB. If the root is not fractured, gently replace the tooth in its socket. If this is not possible, place in milk. If milk is not available, place tooth in a container of water. See a dentist as soon as possible, preferably within half an hour.
- The teacher may choose to use *That Tooth Can Be Saved* chart or the *Dental Emergency Procedures* for the discussion and also as a handout to take home.

Strand: Safety	Grade: 2
Topic: Safety at school and at home	Activity: Playing and working safely at school and at home
Decision-making Process: • Go!	Resources
Foundational Objectives • Students will practice health-enhancing behaviour.	 Learning Objectives Students will: role-play actions to be taken in case of dental emergencies. make a personal commitment to practice safety in an activity.

- Point out to students that no matter how hard we try to be safe, accidents sometimes happen. Discuss the various scenarios included or make some up that are more relevant to your students. Have them in small groups to role-play how they would handle each situation. (Refer to the *Dental Emergency Procedures* paper for assistance with possible actions.)
- Have students reflect on their own behaviour and activities at home and at school. Have students each select one activity that they can change to make safer for their teeth. Each student may write a journal entry or draw a picture, making a commitment to take specific precautions in that activity. As an alternative, the entire class might make a commitment to play and work more safely identifying specific behaviours in specific activities.

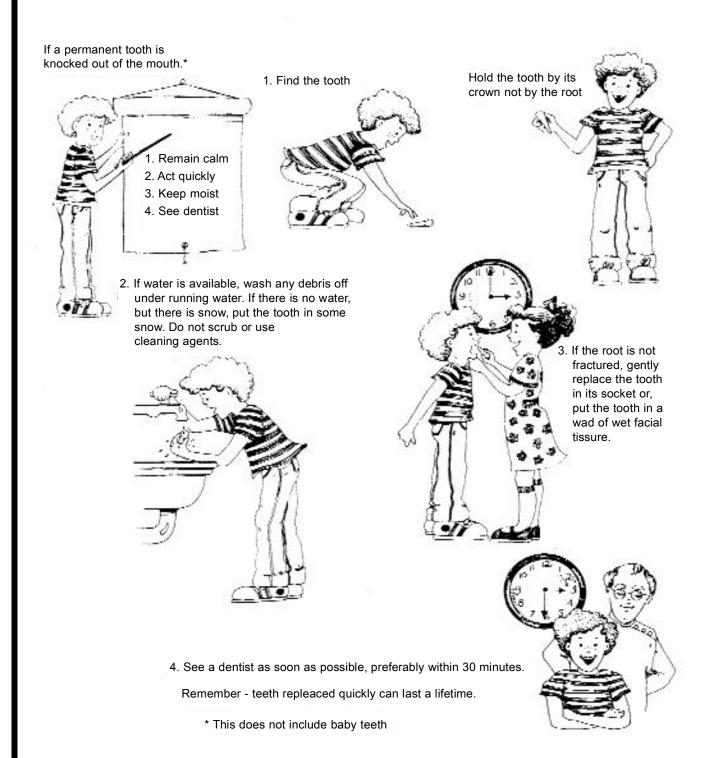
Teacher note: The teacher may choose to use the page Preventing Injuries on the Playground. One way of using it would be to make copies of the images without the enclosed captions. Students may have the option of using those pictures or drawing their own for the above commitment.

• Set a date when those commitments will be reviewed. Post the date in a conspicuous spot. On that date, have students look back on their commitment and confirm that they have or have not acted on them. Students may review their commitments and make any necessary changes. A new commitment may be reviewed at a later date.

An alternative activity may be to tack some chart paper on a bulletin board. Print the title **How We Kept our Teeth Safe**. For a week, at the end of each day, have students suggest how they played and worked together safely. This may include how they helped themselves as well as each other.



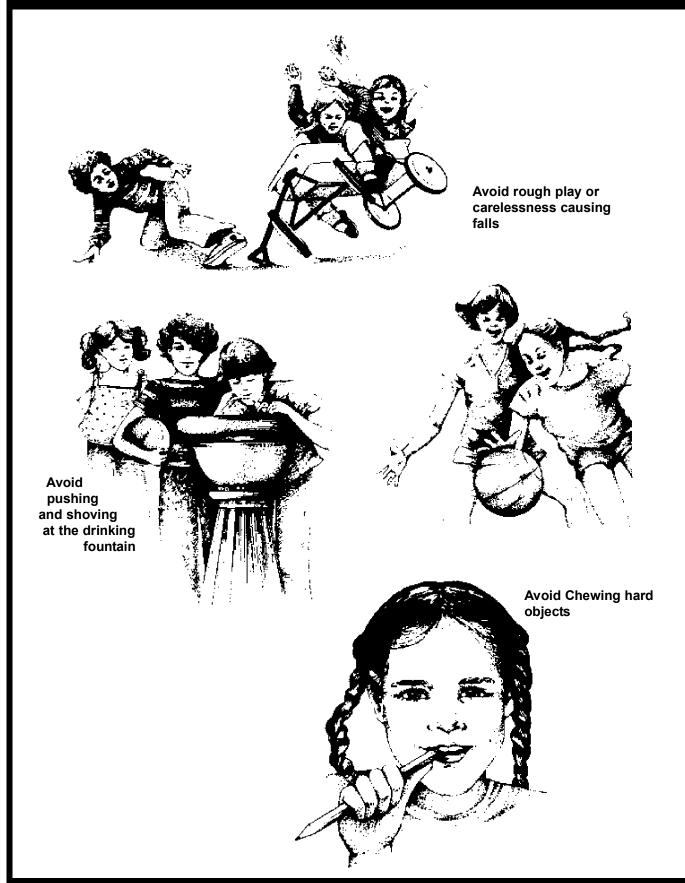
That Tooth Can Be Saved



Dental Emergency Procedures

Toothache	Rinse the mouth vigorously with warm water to clean out debris. Use dental floss to remove any food that might be trapped between the teeth. If swelling is present, place cold compresses on the outside of the cheek. <u>Do not use heat or place</u> <u>aspirin on the aching tooth or gum tissue</u> . See your dentist as soon as possible.
Orthodontic Problems (Braces and Retainers)	If a wire is causing irritation, cover end of the wire with a small cotton ball, beeswax, or a piece of gauze, until you can get to the dentist. If a wire is embedded in the cheek, tongue, or gum tissue, do not attempt to remove it. Go to your dentist immediately. If an appliance becomes loose or a piece of it breaks off, take the appliance and the piece and go to the dentist.
Knocked-Out Tooth (Permanent Tooth)	If the tooth is dirty, rinse it gently in running water. Do not scrub it. Gently insert and hold the tooth in its socket. If this is not possible, place the tooth in a container of milk or cool water. Go immediately to your dentist (within 30 minutes, if possible). Don't forget to bring the tooth.
Broken Tooth	Gently clean dirt or debris from the injured area with warm water. Place cold compresses on the face, in the area of the injured tooth, to minimize swelling. Go to the dentist immediately.
Bitten Tongue or Lip	Apply direct pressure to the bleeding area with a clean cloth. If swelling is present, apply cold compresses. If bleeding does not stop, go to a hospital emergency room.
Objects Wedged Between Teeth	Try to remove the object with dental floss. Guide the floss carefully to avoid cutting the gums. If not successful in removing the object, go to the dentist. Do not try to remove the object with a sharp or pointed instrument.
Possible Fractured Jaw	Immobilize the jaw by any means (handkerchief, necktie, towel). If swelling is present, apply cold compresses. Call your dentist or go immediately to a hospital emergency room.

Preventing Injuries on the Playground



Scenarios: Dental Emergencies

- 1. During recess, your best friend trips and falls. You ask her if she's okay. She says, "Yes." But then you notice that her lip is bleeding. It looks like she bit into it when she fell. What do you do now? Who will you go to for help?
- 2. You and your friends like to play shinny after school. You're having a good, exciting game. You go to hit the puck just as one of your friends goes for it too. You accidentally hit him in the face with your stick. When he gets up, you notice that one of his front teeth is missing. What do you do now? Who will you go to for help?
- 3. Your friend is unusually quiet today. You ask him what's wrong. He says he has a toothache. What do you do now? Who will you go to for help?
- 4. You're having lunch with your friend. You're sharing a bowl of mixed nuts. Suddenly your friend puts her hand over her mouth and spits out a piece of shell and half a tooth. What do you do now? Who will you go to for help?

Grade 3 Dental Health Program

Unit Overview

The format of this unit is similar to that of the sample units found in Health Education: *A Curriculum Guide for the Elementary Level (1998)*. Essentially, the unit follows the Decision-making Process, similar to that in the curriculum.

Level	Steps	Activities
Level A Stop!	13. Think.14. Research.	 Identify favourite snacks. Analyze sugar content of various snacks.
Level B Explore	15. Look at options and consequences.16. Choose an option.	 Explore consequences of consuming foods high in sugar. Identify foods that promote healthy teeth. Practice choosing or making healthy snacks.
Level C Go!	17. Design and carry out an action plan.18. Examine the results. Revise as needed.	 Commit to eating healthy snacks. Track snacks consumed. Evaluate snacking habits.

Strand: A healthy body	Grade: 3
Topic: Nutritious snacks	Activity: Identifying snacks
Decision-making Process: • Stop	Resources Packaging from various snack foods.
Foundational Objectives • Students will increase their knowledge of their bodies and how to care for them.	Learning Objectives Students will: • identify snacks they eat. • discuss favourite snacks. • discover sugar content in various snacks

- The teacher may bring to class some packaging from various foods (e.g., chocolate bar wrapper, soda pop can, drink crystal package, cereal box). See the chart *Sugar Content of Foods and Beverages* for suggestions.
- Ask students what snacks they eat. To assist their thinking ask them questions such as, "What do you like to eat when you get home from school? What do you buy to snack on in the car or truck when you travel? What do you drink besides water? What kind of gum do you chew? Do you sometimes have candy or dessert before you go to bed?" Make a list on the chalkboard as students suggest various snack foods and beverages.
- Discuss how sugary snacks or a diet high in sugar contribute to tooth decay. See Teacher Information Page.
- The teacher may explain that the chart *Sugar Content of Foods and Beverages* lists the sugar content of various foods and beverages. Using the chart, select some snacks that the students identified. Discuss the sugar content.
- Explain that labels on food packages provide a good source of information regarding sugar content. Using items the teacher brought to class, list the sugar ingredients on the chalkboard. Discuss.
- For the following activity, have students bring to school labels or packaging of snacks and beverages they like. These will be used to analyze sugar content.

Strand: A healthy body	Grade: 3
Topic: Nutritious snacks	Activity: Analyzing snacks
Decision-making Process: • Explore	Resources Bag of sugar Measuring spoons Plastic (e.g., Ziplock) bags
 Foundational Objectives Students will increase their skills in making health-enhancing decisions. Students will develop their ability to make decisions. 	 Learning Objectives Students will: measure the sugar content in popular snacks. read labels for sugar content. consider the consequences of eating various snacks. identify alternate healthy snacks.

Option 1

- Have students display the packaging of various snacks and beverages they have brought to class. For the snacks that are not represented, have them write the name of the snack in large letters on a piece of paper.
- Have students working in small groups to read labels on the food packages that they brought to class. Their task is to read the label to identify not only the **sugar** but also the hidden sugars ("OSE" words). Note that some foods may appear to be sugar-free, but when you read the ingredients you find a number of hidden sugars (e.g., in fun fruit, some fruit drink boxes).
- Using the *Sugar Content of Foods and Beverages*, select some foods that the students like and are inclined to consume. Use the empty cartons of the food, food labels, pictures, or just the name and quantity of the food or drink printed on a large label as a concrete example. Have students measure the amount of sugar that is found in a particular food into a plastic bag. Attach the food label to the bag. Pass the food and beverage samples among students so that they may see and feel the amount of sugar in each. It may be appropriate for the students to present their findings to another class of students or display their findings in a prominent place.
- Discuss the effect that eating various snacks may have on the health of our teeth.
- Have students suggest and list alternative snack foods that help ensure a healthy body and healthy teeth.

Option 2

- Have students sort food pictures into two categories those that are healthy and those that are unhealthy for teeth. Have students explain why they were sorted in this manner.
- Using large sheets of paper, draw two teeth on each, one with a smile and one with a frown. Have students working in groups to draw or paste pictures of healthy snacks on the one with a smile and pictures of not so healthy snacks on the other.

Teacher Note: Most fruits and vegetables also contain sugar. But because the sugar occurs naturally in those foods and the foods contain other values, they are a better nutrition choice. However, natural sugars also do have the potential to cause dental decay.

Strand: A healthy body Topic: Healthy snacks	Grade: 3 Activity: Choosing healthy snacks
Decision-making Process: • Go!	Resources Concrete materials will vary according to the activities.
Foundational Objectives • Students will develop attitudes and practices for healthy living.	 Learning Objectives Students will: Understand which snacks are healthy for teeth and which are not. Be able to explain why certain snacks are/are not healthy for their teeth. Participate in a class or group activity with a focus on healthy snacks. Commit to tracking snacks.

- The teacher and students may choose to do one or more of the following activities:
 - 1. Have students fill a brown lunch bag with pictures or drawings of healthy snacks they could eat at home or bring to school. Children may use the "show and tell" approach about their personalized lunch bags.
 - 2. Students may cut out pictures of healthy snacks for teeth and glue them onto coloured paper. String or floss may be attached to the pictures and they can then be stapled or tied to criss-crossed plastic straws or popsicle sticks to make a "Snack Mobile."
 - 3. Arrange to conduct a cooking class with students to make one or more healthy snacks (e.g., muffins, whole wheat toast). Serve the snacks with cheese, fresh fruit, and a glass of milk.
- Following the activity (or activities), have students discuss what they learned about healthy snacks and tooth care. Emphasize not only what foods are healthy or not healthy but also why they are good or not so good for our teeth.
- Using the *Eating Right* handout, students may list the healthy foods they ate yesterday and those they will eat tomorrow. On the following day, have them check off the snacks they actually ate or change those listed under "tomorrow." The teacher may choose to use this or a similar activity periodically during the school year.

Please note that the students should not have the impression that they must never consume things that are not good for their teeth. Rather, they should understand that they have some choices about what they eat and that they may choose healthy rather than not so healthy snacks most of the time. They should also understand the importance of brushing their teeth after consuming a sugary snack.

• The teacher and students may wish to keep track of snacks for a few days or a week. Begin with the snacks students were accustomed to consuming and track what these were replaced with. They may indicate after each the sugar content. For example:

MON.	TUE.	WED.	THURS.	FRI.
Coke (40.7 g)	water	milk water	milk apple juice	water orange juice
Kit Kat bar (20 g)	raisins	peanuts	apple	banana
	Juicy Fruit gum			

Eating Right!

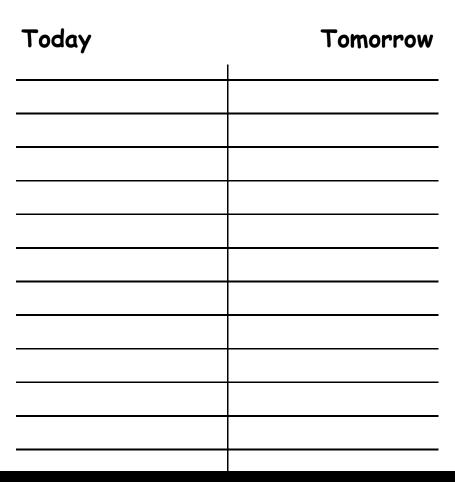


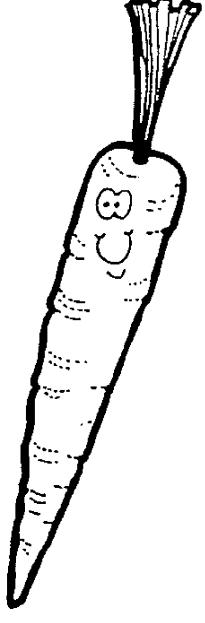
Here is a list of fruits and vegetables I will include in my diet:

A healthy diet for the body is also a healthy diet for my teeth!

I am eating plenty of fruits and vegetables and drinking more milk.

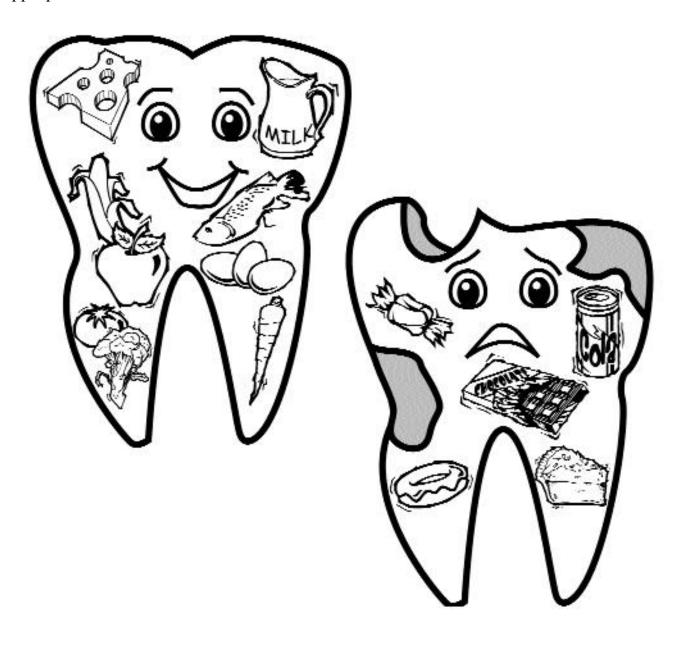
I am avoiding candy, cakes, and soft drinks as much as possible.





Snacks to Make Teeth Happy or Sad

Draw two huge teeth – one happy and one sad. Have students cut out pictures from magazines or find food labels. Have them paste them or draw their own pictures on the appropriate tooth.



Plaque

Plaque is a sticky film containing germs and food particles. Plaque sticks to our teeth, gums, and tongue causing cavities, gum disease, and bad breath. Plaque uses the sugars from the foods we eat and drink to produce harmful acids. These acids will attack teeth to cause cavities.

The plaque chain:

When you have foods or drinks containing sugar the plaque begins producing acid within 5 minutes of eating the food. If the sugar-containing food is of a sticky consistency, acid can be produced for as long as 30 minutes to an hour.

Sugar

Sugar is found in some packaged or convenience foods. Reading food labels helps us to detect the hidden sugars (e.g., fructose, dextrose, maltose, lactose, sucrose, and glucose). The word ending in "OSE" indicates it is a type of sugar.

Sugar Content of Foods and Beverages

Sugars (g): 1 teaspoon of sugar weighs 4 gr	grams (g)
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Cola soda - 12 ft or (369 g)	Beverages, Carbonated	Sugar (g)	Cocoa Krispies – ¹ / ₄ cup (28 g)	12.0
Ginger alc − 12 fl oz (366 g)			• • •	
Lemon-lime soda - 12 fl oz (360 g)	, -		± ' • • • • • • • • • • • • • • • • • •	
Orange soda − 12 fl oz (372 g) 45.8 Corn Flakes, Kellogg's − 1½, cup (28 g) 2.0 Pepper-type soda − 12 fl oz (389 g) 40.7 Corn Flakes, Rost Toasties − 1 cup (28 g) 3.0 Tonic water − 4 fl oz (122 g) 10.4 Corn Flakes, Rost Toasties − 1 cup (28 g) 3.0 Beverages, Noncarbonated Count Chocula − 1 cup (28 g) 8.0 Cafe Francais − 6 fl oz (185 g) 6.1 Crispy rice − 1 cup (28 g) 3.0 Cafe Francais − 6 fl oz (185 g) 5.9 Donutz, chocolate − 1 cup (28 g) 10.0 Cafe Vancan − 6 fl oz (187 g) 6.5 Donutz, chocolate − 1 cup (28 g) 10.0 Lemonach − 10 co (187 g) 6.5 Frankenberry − 1 cup (28 g) 13.0 Kool-aid, all flavors, from mix − 8 fl oz (244 g) 24.2 Frankenberry − 1 cup (28 g) 13.0 Lemonade, from frozen cone − 6 fl oz (187 g) 24.2 Fruit & fibre w/aples & cinn − ½ cup (28 g) 7.0 Lemonade, from mix − 8 fl oz (244 g) 21.9 3.1 Lemonade, from mix − 8 fl oz (244 g) 21.9 Lemon-lime, from mix − 8 fl oz (244 g) 21.5 3 cup (40 g) 3.0 Tang, grapefruit − 3 rd tsp. in 6 fl oz water (186 g)	· · · · · · · · · · · · · · · · · · ·		- · · · · · · · · · · · · · · · · · · ·	2.0
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Count Chocula - 1 cup (28 g) 8.0				
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Rice krispies, frosted = 1 cup (28 g) 10.0		(<i>U</i>)		
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Sugar puffs = 7/4 cup (28 g) 11.0	± '			
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	2. 20p (20 g)	1.0	Butterscotch, from mix $-\frac{1}{2}$ cup (149 g)	25.9

Butterscotch, low cal, from mix $-\frac{1}{2}$ cup (130 g	7.1	Strawberry frosted – 1 pastry (52 g)	15.0
Chocolate, from mix $-\frac{1}{2}$ cup (151 g)	26.5	J J (2)	
Chocolate, fudge, from mix $-\frac{1}{2}$ cup (151 g)	25.9	Milk Mixes	
Chocolate, low cal, from mix $-\frac{1}{2}$ cup (130 g)	6.6	Chocolate powder, Nestle Quik – 2 tsp (22 g)	18.0
Coconut cream, from mix – ½ cup (149 g)	23.3	Chocolate syrup – 1 tbsp (20 g)	9.9
French vanilla, from mix $-1/2$ cup (149 g)	26.1	• • • • • • · • · • · • · · • · · · · ·	
Lemon, from mix $-\frac{1}{2}$ cup (149 g)	26.7	Cocoa mix, Hershey – 1 oz (28 g)	20.0
Pistachio, from mix $-\frac{1}{2}$ cup (149 g)	25.6	Cocoa mix, Nestle – 1 oz (28 g)	23.0
Rice, from mix $-\frac{1}{2}$ cup (149 g)	19.0	Cocoa mix w/marshmallows, Nestle – 1 oz (28 g)	22.0
Tapioca, from mix $-\frac{1}{2}$ cup (145 g)	21.1		
Vanilla, from mix $-\frac{1}{2}$ cup (149 g)	26.7	Miscellaneous	
Vanilla, low cal from mix $-\frac{1}{2}$ cup (130 g)	7.3	Barbecue sauce – 1 tbsp (16 g)	4.0
Pudding Pops:		Chocolate, unsweetened baking – 1 oz (23 g)	4.0
Banana – 1 pop (57 g)	14.2	Oven fry, General Foods – ¹ / ₄ pkg (23 g)	0.8
Butterscotch -1 pop (57 g)	14.2	Pectin, Certo – 1 tbsp (14 g)	0.2
Chocolate – 1 pop (57 g)	14.8	Shake and bake $-\frac{1}{4}$ pkg (17 g)	1.5
Chocolate fudge – 1 pop (57 g)	14.7		1.3
Vanilla − 1 pop (57 g)	14.2	Whipped topping:	
Toaster pastry:		Cool Whip, frozen – 1 tbsp (4 g)	1.0
Blueberry – 1 pastry (52 g)	13.0	Dream Whip, from $mix - 1$ tbsp (5 g)	1.0
Blueberry frosted – 1 pastry (52 g)	15.0	Low Cal D-zerta, from mix – 1 tbsp (3 g)	0.3
Brown sugar cinnamon -1 pastry (50 g)	12.0		
Brown sugar cinn. Frosted – 1 pastry (50 g)	14.0		
Cherry – 1 pastry (52 g)	13.0		
Cherry frosted – 1 pastry (52 g)	15.0		
Chocolate chip – 1 pastry (50 g)	15.0		
Chocolate fudge – 1 pastry (52 g)	18.0		
Dutch apple frosted – 1 pastry (52 g)	16.0		
Raspberry frosted – 1 pastry (52 g)	17.0		
Strawberry – 1 pastry (52 g)	13.0		
Summodify $= 1$ pastry (32 g)	13.0		

From: Food Values of Portions Commonly Used. J. Pennington and Church, 14th Edition, 1985

Grade 4

Dental Health Program

Unit Overview

The format of this unit is similar to that of the sample units found in Health Education: *A Curriculum Guide for the Elementary Level (1998)*. Essentially, the unit follows the Decision-making Process, similar to that in the curriculum.

Level	Steps	Activities
Level A Stop!	25. Think.26. Research.	 Brainstorm for sports activities and possible injuries, especially to teeth. Explore ways to prevent those injuries.
Level B Explore	27. Look at options and consequences.28. Choose an option.	 Discuss and illustrate participating safely in favourite sports. Participate in choosing an action plan.
Level C Go!	29. Design and carry out an action plan.30. Examine the results. Revise as needed.	 Role-play various scenarios that involve preventing or responding to injuries. Evaluate action plan.

Strand: Safety	Grade: 4
Topic: Preventing sports injuries	Activity: Identify possible sports injuries
	and how to prevent
Decision-making Process: • Stop	Resources Mouthguards* Helmets *This resource may be available from the dental health educator.
Foundational Objectives • Students will increase their knowledge of their bodies and how to care for them.	 Learning Objectives Students will: identify both organized and informal sports activities they participate in outside of school. describe safe practices to prevent dental injuries in sports.

• Ask students what sports they like to play. Allow the discussion to lead to organized sports as well as games they like to play after school or on weekends. List them in a column on the chalkboard under the title Activities.

Note that although the major focus here is preventing injuries to teeth, the teacher may well want to expand the topic to include other sports related injuries and ways to prevent them. Be sure, however, that prevention and treatment of dental injuries do get major emphasis.

- Ask if they or their friends have ever had injuries to teeth while playing. If they have some stories, share them. If not, ask them to identify how these activities might result in injuries to teeth. Beside the first column, write another title <u>Possible Injuries</u>. List possible dental accidents that may occur beside each activity listed.
- Ask students if they know of ways to prevent possible injuries to teeth (e.g., wearing helmets and mouthguards, being careful not to push or trip, riding bikes away from traffic). On the chalkboard, write the title <u>Preventing Injuries</u>. List those suggested.
- Review and discuss the information generated.

Strand: Safety	Grade: 4
Topic: Preventing sports injuries	Activity: Identify ways to prevent
	injuries
Decision-making Process: • Explore	Resources Videos:* Dudley's Classroom Adventure 9:02 min. Protect Your Winning Smile 9:08 min. *These may be available from the dental health educator.
Foundational Objectives • Students will increase their skills to make health-enhancing decisions.	Learning Objectives Students will: • describe and illustrate safe practices to prevent dental accidents in sports

- If the videos are available, show and discuss them.
- Have students work individually, with partners, or in small groups. Each group or student may identify one sports activity. (Students may be grouped according to the activity they select.)
- Distribute chart paper or other large sheets to each group. On one part of the paper they may write the title <u>I/We Enjoy</u>.... On another part they may write <u>Safely</u>. Encourage students to think not only of safety equipment but also procedures that make the sports activities safe. Students may use cut out pictures (enlarged) from the enclosed page "Dental Protection in Sports" or draw their own to illustrate the activity or sport under or near the first title and then illustrate how injuries may be prevented under or near the second title. Encourage students to write captions or slogans with their illustrations.
- Display the charts and have each group comment on them.

Strand: Safety	Grade: 4
Topic: Safety in sports activities	Activity: Choosing ways to play safely
Decision-making Process: • Go!	Resources
Foundational Objectives • Students will develop their ability to make a commitment and follow through with it.	 Learning Objectives Students will: role-play first aid procedures for injured teeth and the prevention of sports injuries. design and follow a plan of action to prevent sports-related injuries to teeth.

- Discuss with students the fact that no matter how careful they are, accidents sometimes do happen. Ask them if they know what they should do if they or a friend loses, chips or breaks a tooth. (Accept suggestions like "phone the parents" or "call an adult or 911" as good ideas.)
- Explain to students that sometimes if a permanent tooth is knocked out, it may be saved. (See Teacher Information Page.) Review the procedures.
- Have students work with partners or in small groups. Explain that they will receive some scenarios to read, discuss and role-play. (The teacher may choose to use the ones enclosed or make up, with the students, scenarios that are more relevant to them.)
- Share the role-playing with the class and discuss. Include in your discussion how the group dealt with their problems, who might help them, and how injuries might be prevented
- Have students reflect on the sports and activities they personally participate in and the ways that they can make that activity safer for their teeth. Each student may then design and carry out an action plan that is best for them. (For example, some may buy and plan to use a helmet each time they ride their bikes. Some may plan to be fitted for a mouthguard.) Their plans will include a date, at which time the plans will be evaluated.

Causes of Injuries

Although accidents involving injury to teeth can happen anywhere, most injuries occur as a result of:

- falls from bicycles, skateboards, scooters, trees, and playground equipment
- playing sports without proper dental/facial protection
- fighting, pushing, shoving or tripping while playing

Types of Injuries

Injuries may include broken, chipped or knocked out teeth; injuries to lips, gums, or cheeks, and concussions.

Mouthguards

It is important that mouths be protected from injury. A mouthguard should be worn to prevent serious injuries to teeth. Mouthguards also protect against concussions by holding the jaw apart and acting as a cushion or shock absorber.

A mouthguard may be obtained from a dental office, denturist office, or sporting goods store.

Mouthguards should be worn while participating in sports involving contact with an object or a person (e.g., baseball, basketball, football, gymnastics, hockey, karate, lacrosse, racquetball, skateboarding, soccer, and wrestling).

First Aid for Injured Teeth

If a permanent tooth is knocked out it may be possible to save the tooth by following the steps below:

- Find the tooth.
- Hold the tooth by the crown (top), not by the root (bottom). Fibres surrounding the root could become dislodged.
- If the root is not fractured, gently replace the tooth in its socket and go to the dentist immediately.
- If this is not possible, keep the tooth wet by placing it in milk. If milk is not available, place tooth in water. Do not scrub or use any cleaning agents.
- Go to a dental office immediately, preferably within 30 minutes.

If a tooth is broken, a cold compress should be applied to the cheek or lip and the child should be taken to the dental office as soon as possible. It isn't necessary to find the chipped or broken piece.



Dental Protection Wellness In Sports





Scenarios to Role-play

Kevin and Melissa are practicing their baseball skills for their next Little League game. Kevin pitches and Melissa hits the ball. To Kevin's surprise, the ball comes back and hits him in the mouth, knocking out his front permanent tooth. What should Kevin and Melissa do? Who might help them? How could that injury be prevented next time?

Allison and Robert are warming up for their figure skating event. Robert trips and falls on the ice, chipping a front permanent tooth. What should Robert and Allison do? Who might help them? How could he avoid the injury next time?

You and your friend are on a soccer team. Your coach encourages each of you to buy a mouthguard and wear it every time you play. Your friend says, "That's for sissies!" What do you say to your friend? What will you do?

Your older sister and you want to learn how to rollerblade. The two of you discuss what you will need to begin. What possible injuries could result from rollerblading? What safety equipment will you need to help prevent injuries? Where will it be safe to rollerblade in your neighbourhood?

Your younger brother recently got a new bike and wants to go riding with you. You look everywhere but can't find his helmet. What will you do? What will you say to him?

Grade 5 Dental Health Program

Unit Overview

The format of this unit is similar to that of the sample units found in Health Education: *A Curriculum Guide for the Elementary Level (1998)*. Essentially, the unit follows the Decision-making Process, similar to that in the curriculum.

Level	Steps	Activities
Level A Stop!	31. Think. 32. Research.	 Discuss what can go wrong with teeth. Identify the effects of dental health problems on the rest of the body.
Level B Explore	33. Look at options and consequences.34. Choose an option.	 Explore various lifestyle choices. Identify links between those choices and dental health. Participate in choosing an action plan.
Level C Go!	35. Design and carry out an action plan.36. Examine the results. Revise as needed.	 Design and carry out an action plan that helps build healthy teeth. Evaluate action plans.

Strand: A healthy body/self-esteem	Grade: 5
Topic: Linking a healthy mouth and a	Activity: Explore dental problems and
healthy body	their effect on the person's health
Decision-making Process: • Stop	Resources
Foundational Objectives • Students will increase their knowledge of their bodies and how to care for them.	 Learning Objectives Students will: explore problems that may arise with teeth. link dental problems with other health issues. understand that dental and general health problems can be prevented.

- Discuss with students the various things that can go wrong with teeth. (Some students may have experienced problems that resulted in wire apparatuses, crowns, or fillings; have had teeth pulled because of small mouths, to make room for permanent teeth, or may have seen their grandparents with dentures.) List them on the chalkboard under a title such as <u>Problems with Teeth</u>.
- Ask students how each situation may affect the person's health. List suggestions along with the problems. The discussion should touch on the following:
 - Gum disease (See pages called Gum Disease and Teacher Information Page)
 - Irregular teeth (May be caused by baby teeth that came out too soon or too late. May result in a faulty bite, difficulty with chewing food and speaking clearly, and may affect appearance.)
 - Cavities (Caused by acid destroying tooth enamel. May result in pain and infection.)
- Point out that sometimes problems arise because of accidents, lifestyle choices (e.g., using tobacco, poor diet, not brushing/flossing), or even for no apparent reason, but that often the problems are preventable.
- Stress to students that dental disease (cavities and gum disease) is preventable. Have them offer suggestions.

Strand: A healthy body Topic: Preventing dental problems	Grade: 5 Activity: Practice habits that promote healthy teeth
Decision-making Process: • Explore	Resources (Videos)* Taking Care of Your Teeth and Gums 10 min. The Haunted Mouth 12:57 min. Portrait of the Enemy 11:53 min. (Flip chart) Smokeless Tobacco: A Chemical Time Bomb* (Samples) Smokeless Tobacco Product * (Fact sheet/handouts) Facts You Should Know About Smokeless (Spit) Tobacco * Dental Floss * Large mouth model and toothbrush* Toothbrush * *These may be available from the dental health educator.
Foundational Objectives • Students will increase their skills to make health-enhancing decisions.	Learning Objectives Students will: • understand and appreciate the links between lifestyle choices and dental health.

- Ask students to suggest lifestyle choices that help prevent problems with their teeth. Discuss the consequences of making different choices. List the suggestions under <u>Preventing or Correcting Problems</u>. They may include the following:
 - Brushing twice a day with fluoride toothpaste.
 - Flossing daily.
 - Nutritious diet.
 - Refraining from using tobacco products (i.e., chewing tobacco, cigarettes, cigars, pipes).
 - Regular visits to the dentist for checkups, cleaning, and fluoride treatment.
 - Correcting irregular teeth.
 - Fluoridation. (Research shows that in areas where water is fluoridated, people have fewer cavities.)
 - Maintaining good general health.
- To reinforce the first five of the above points, have students participate in some of the following activities:

Brushing and flossing regularly

- See Teacher Information Page for guidelines on brushing and flossing.
- Show and discuss the videos Taking Care of Your Teeth and Gums and The Haunted Mouth.
- Use the mouth model, toothbrush, and dental floss to demonstrate effective procedures.
- Have students take turns practicing on the model.
- Students may practice flossing their own teeth. Have them work with partners to make sure they are doing it correctly.

Nutritious diet

- Use the Canada's Food Guide poster to select foods that help build healthy teeth. Using the poster, have the students make two webs, one called <u>Friends of Healthy Teeth...</u> and the other called <u>Enemies of Healthy Teeth...</u> Beside each, draw pictures of appropriate foods and connect them to the title. For example, the first will have fruits, vegetables, and foods high in calcium while the second will have foods high in sugar, especially sticky sweets.

Refraining from using smokeless tobacco

- Review with students what they know about cigarettes and cigarette smoking. Ask them if they know of other products that also contain tobacco (e.g., pipe and chewing tobacco). Point out that some tobacco is made to smoke, while other tobacco is smokeless.
- Ask them to identify the various forms of smokeless tobacco (i.e., snuff, chew, and plug). Use the samples and the Smokeless Tobacco flip chart to help explain what it is. (Note that the ingredients include nicotine, carcinogens, sweeteners, abrasives, salt, and hundreds of chemicals that are poisonous to the body.)
- Ask students how they think using smokeless tobacco might affect the body. *Note that the use of the tobacco may cause the following:*
 - > Leukoplakia, a pre-cancerous condition caused from direct contact with tobacco. It is seen as a wrinkled, leathery patch of skin on the inside of the cheek, lips or tongue.
 - > Cancer of the mouth, involving the lips, cheeks, tongue, and palate.
 - > Cancer of other parts of the body including the throat, esophagus, stomach, or bladder.
 - > Heart disease resulting from increased heart rate and cholesterol levels, which decrease the oxygen carrying capacity of the blood.
 - > Dental problems such as decayed teeth, stained teeth, ground down teeth, gingivitis, periodontal disease, black hairy tongue.
- Ask students why, when it is harmful to the body, some people use it. *The discussion may include looking cool, peer pressure, images of sports heroes using it, living dangerously. It should also include the addictive nature of the tobacco and that people who begin using it at a young age will likely have difficulty quitting later.*

- The teacher may choose to divide the class into groups of 4 or 5 students to develop consequence wheels, showing both long and short-term consequences. If students have not done consequence wheels before, it might be better to do one large one, with the whole class participating. Please see the *Teacher Information Page* for an example of a consequence wheel and some basic instructions. If students work in groups, have one group present its wheel to the class and have other groups add what they have that is different. The wheels may be displayed in the hallway.

Good dental care may help prevent other health problems

- Discuss with students the link between a healthy mouth and a healthy body. In the discussion be sure to emphasize that the various parts of the body are linked in many ways so that when one part is not healthy, it will affect other parts.
- Show and discuss the video *Portrait of the Enemy*.
- The discussion should touch on the following (see Teacher Information Page):
- > The relationship between dental disease and heart disease.
- > The relationship between dental disease and premature low birth-weight (under weight) babies.
- > The relationship between dental disease and pneumonia or upper respiratory infections.

Strand: A healthy body/self-esteem	Grade: 5
Topic: Preventing dental problems	Activity: Practice habits that promote
	healthy teeth
Decision-making Process: • Go!	Resources Dental Floss * Large mouth model and toothbrush* Toothbrush * (Video) Smokeless Tobacco Refusal Skills* 15 min. *These may be available from the dental health educator.
Foundational Objectives • Students will design and carry out an action plan to promote dental health	 Learning Objectives Students will: demonstrate and explain proper tooth brushing and flossing to others. practice choosing and preparing nutritious snacks and lunches. role-play assertive refusal skills to offers of smokeless tobacco. identify links between good dental health and prevention of other health problems.

• Have students plan and carry out a health action plan that demonstrates the links between lifestyle practices and dental health. They may include some of the following:

Brushing and flossing regularly

- Students may demonstrate and explain flossing and brushing to a younger or older person (e.g., care partner, brother, sister, grandparent, a buddy in another grade).
- Both the student and learner may date and sign a contract to indicate the task has been accomplished. The contracts may be displayed on a dental health bulletin board display.

Nutritious diet

- The teacher and students may plan to coordinate a cooking activity (nutritious snacks) with the Grade 3 class. Grade 5 students could be paired with the younger students to work as buddies on the project.
- The teacher and students may plan a lunch or snacks that promote healthy teeth. This may be done for the class, coordinated with another class, or as a school project (perhaps a fund-raiser). If other students are involved, the Grade 5 students may act as "experts," making sure that the message of healthy teeth gets across to others.

Refraining from using smokeless tobacco

- If the video Smokeless Tobacco Refusal Skills is available, show and discuss it.
- Use the following scenarios or others that may be more relevant. Have students discuss the various consequences that may result from different kinds of responses and choose the best response. Have them role-play making the best decisions and responding assertively to offers of smokeless tobacco. (Note: these skills may need to be taught if not previously learned)

Scenarios to role-play

After the movie, Jason and Kenton are walking home. Jason takes out a can of snuff and offers Kenton a "pinch." Kenton is surprised to see his best friend using snuff. After all, they just learned in class about the dangers of using it. How might Kenton respond?

Cody, Michael and Joshua are camping near their farms. Cody and Michael have been best friends since Grade 1. Joshua just moved to the school a month ago and really wants to be friends with the two boys. The three of them have a lot in common. They all like horseback riding, playing mini golf, and camping. Cody and Michael have been using chewing tobacco a few times and have offered some to Joshua, who always refused. This time the boys are more persistent, calling Joshua a "chicken." Joshua doesn't want the tobacco but wants to be friends with the two boys. What should he do? What might he say?

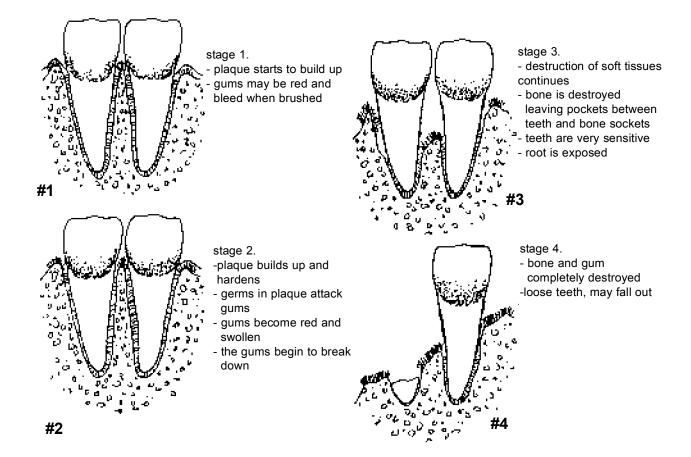
Susan and Melody are surprised when they find a package of chewing tobacco on Michelle's dresser. They thought only boys used the stuff. Michelle explains that at first she thought it tasted gross but that she really likes it now. She offers some to her friends. Will they accept her offer? What could they say?

Good dental care will help prevent other health problems

To reinforce a commitment to maintaining good health, the teacher may choose to use some concrete devices. The following is a suggestion:

- Draw a large picture of a tooth with a happy face in it. Below it writes, "A healthy mouth may help prevent..." Have on hand three (plus some extras) balloons with signs **Heart Disease, Premature or Small Babies**, and **Respiratory Infections** attached with strings. As the discussion proceeds, pin the appropriate balloon to the end of the sentence. After discussing the health problems that may result from unhealthy teeth, review them by having students take turns choosing one of the balloons and blowing it away. Each student should be able to explain why s/he chose that particular balloon to blow away and how the problem may be prevented (e.g., by brushing/flossing regularly, eating nutritious foods, seeing a dentist regularly, avoiding tobacco products, etc.). The last students may break the balloons chosen.
- Have students evaluate their action plans.

GUM DISEASE



Periodontal Disease

Plaque has a significant role in the process of periodontal disease.

- Plaque is a sticky film containing germs and food particles. Plaque sticks to our teeth, gums, and tongue causing cavities, gum disease, and bad breath. Plaque needs to be removed from teeth, gums, and the tongue every day.
- If plaque is not removed every day by brushing and flossing, it builds up and may cause the gums to become sore and bleed easily. Bleeding is a common early sign of gum disease.
- Plaque can also harden and turn into tartar or calculus. This calculus collects along the gum line and makes it difficult to remove the plaque that continues to collect.
- Plaque accumulating on the gums and between the teeth is responsible for the beginning of periodontal disease. This build-up starts the infection, which causes the gum tissues to become inflamed and bleed easily. If not removed, the plaque continues to collect and the infection moves down the tooth, under the gums, and can destroy the bone underneath. The permanent teeth may become loose and fall out or have to be removed.

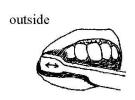
Periodontal disease can be prevented.

- Periodontal disease is an extended version of gum disease. It differs from gum disease in that it
 affects the supporting structures of the teeth whereas gum disease affects only the gums.
 Periodontal disease often starts in adolescence. So preventive techniques should begin as early as
 possible.
- The best method of prevention is to thoroughly remove plaque from the teeth and gums every day. A soft-bristled toothbrush and dental floss are needed. Toothbrushing removes plaque from the inside, outside and the chewing surfaces of the teeth. Dental floss removes plaque from the area between the teeth and along the gumline.
- The teacher should stress that flossing regularly is very important in cleaning teeth and gums. If plaque is not removed from under the gums with floss, periodontal disease is very likely to occur. Bushing alone cannot prevent this disease.

Brushing and Flossing

The "Bass" toothbrushing technique is recommended.

- Hold the toothbrush against teeth while bristles are at a 45° angle to the gum line.
- Brush teeth by moving brush back and forth several times with short strokes (gentle, vibrating motion). For the inside of the front teeth, tilt the brush and use small vibrating strokes or small circles with the tip of the brush.
- Brushing the tongue will help remove bacteria and freshen the breath.

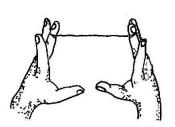


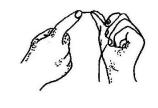


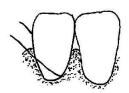


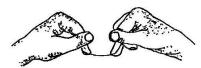
Brushing the teeth will clean the inside, the outside and the tops of the teeth. Dental floss should be used daily to remove the plaque from between teeth and under the gum line. Use the following procedure:

- Break off a piece of dental floss about ½ m long.
- Wind most of the floss around the middle finger of one hand. Wind the rest around the same finger of the other hand.
- Hold the floss tightly between the fingers and work it slowly between the teeth and down to the gum line using a gentle back and forth motion.
- When the floss is at the gum line, curve it around the tooth and move the floss up and down against the side of the tooth to remove the plaque.
- Repeat this process on each tooth, using a clean section of the floss.









Relationships between a Healthy Mouth and a Healthy Body

Dental Disease and Heart Disease

Research has shown that individuals with periodontal disease may have an increased risk of developing heart disease and/or stroke. The infection from periodontal disease may result in bacteria being pumped into the blood stream, which may damage the heart walls or valves. The bacteria may also cause the release of clotting factors that can trigger heart attacks and strokes.

Dental Disease and Premature (or Low Birth Weight) Babies.

Research shows that inflammation caused from periodontal disease may release a hormone called prostoglandin that is responsible for triggering labour. Women with periodontal disease may therefore deliver a premature, low birth weight baby.

Dental Disease and Pneumonia

Research shows that there may be a relationship between dental disease and upper respiratory infections. Dental plaque acts as a reservoir for many types of bacteria. Certain bacteria may be aspirated into the lungs and upper respiratory tract resulting in pneumonia or upper respiratory infections. Also, gum infections resulting from periodontal disease may contribute to persistent upper respiratory infections and pneumonia.

Research shows that there is a strong relationship between good nutrition and healthy teeth and gums.

Calcium is an essential nutrient necessary for the development and maintenance of healthy teeth and bone. Calcium is found in foods such as milk, cheese, broccoli, and canned fish with bones. Sufficient calcium will help prevent osteoporosis, a disease related to low bone density, as well as ensure a strong layer of tooth enamel.

Snacking on foods and drinks that are high in sugar promotes the development of plaque and should be limited.

Sample of a Consequence Wheel

A consequence wheel helps students identify and then see at a glance what the consequences of a certain decision may be.

- To begin a consequence wheel, write the action in the center of a large sheet of paper. Draw a cloud around it. Make it prominent.
- For the first level of consequences, connect with one line. Draw a cloud or ring around each consequence. For the second level, connect with two lines, and so on.
- Consider both long and short-term consequences.
- Consider both positive and negative consequences.
- Consequences may be colour coded (e.g., positive/negative).

The example below shows an example of a partially completed consequence wheel

